

DIRECTORY CATALOGUE 2022



1. INTRODUCTION



2. PROFI BENCHES



3. PROFI BENCH RACKS



4. EASY WORKSTATION SYSTEM



5. FLEX WORKSHOP SYSTEM



6. MOBILES & CARTS



7. CONTAINERS



8. CABINETS



9. INSTRUMENT RACKS FOR KP/EP/MP MODULES



10. KP/EP/MP MODULES



11. 19" INSTRUMENT RACKS & MODULES



12. LS2000 INSTRUMENT RACKS & MODULES



13. ACCESSORY

INNOVATION AND TRADITION

In 1959, our founder Mr. Hermann Rapp, was the first with the idea to build special furniture for electronic professions. Since that time hera develops and manufactures innovative workstations for all kind of electronic applications. The furniture program EASY in combination with the modular LS2000 bench rack system was soon standard in electronic laboratories. In all those years we gained valuable expertise in countless projects from A like Airbus to Z like Zeppelin. All those experiences were elaborately used to develop new products. Hence, the result is our utmost successful and highly modular laboratory system PROFI with high speed communicating 19" devices in IoT technology.



1975

EASY Electronic Workshop
of 1975 with LS2000
Bench Rack System.



2020

PROFI Lab with IMOD
Devices in IoT Technology



1959

founded by Mr.
Hermann Rapp

1975

launch of
LS2000 System

1999

launch of
PROFI System

2006

launch of
**Technical Training
Systems**

2017

launch of
**IMOD Device
Series**

1972

moving from radio -/ TV
shop in todays facility

1995

integration into ZECH
Unternehmensgruppe

2010

launch of **FLEX
Workshop System**

2000

expansion of
shipping department

2018/19

expansion of manufacturing
area by approx. 5.000 m²
(construction of 3 halls)

HIGH MANUFACTURING DEPTH IN OUR GERMAN HEADQUARTER

hera philosophy is to keep all key processes within the own company to offer our customers the highest possible degree of quality and flexibility. Our motivated team in Blaufelden develops, designs, manufactures and tests the workstations for laboratories, workshops and classrooms. All manufacturing processes are done in a top-modern mechanical and electrical production plant with hightech machinery.





Blaufelden Headquarter, Administration and R&D



Building Complex, approx. 10.000 m² Production Area

COMPETENCE IN MANUFACTURING, INSTALLATION AND SERVICE

hera does not simply sell laboratory -, classroom - and workshop systems - we manufacture those, including the electronic devices! And this for more than 50 years now. In all those years we acquired a deep understanding for our customers requirements which we will be pleased to share with you in the planning and realization of your individual project.



Mechanical Manufacture with own Powder Coating Plant

We guarantee permanently high quality, as all our metal housings, front panels, etc. are done with our top-modern machine park including inhouse powder coating and silkscreen printing.



Innovative Extrusion Processing

You will benefit from a hightech machine park for aluminium extrusion - and tubular steel processing.



Professional Electric End Assembly

Electric end assembly of all bench racks with documented 100% functional - and safety test done by our team of professionals.



Wire Harness Production & PCB Assembly

Quality and flexibility due to own wire harness manufacturing and inhouse PCB assembly according to latest standard.



Electronic Manufacturing

Inhouse production of high quality laboratory devices and technical training systems. Quality is assured due to automated and documented tests for each assembly group and 100% certified functional - and safety test of complete products.

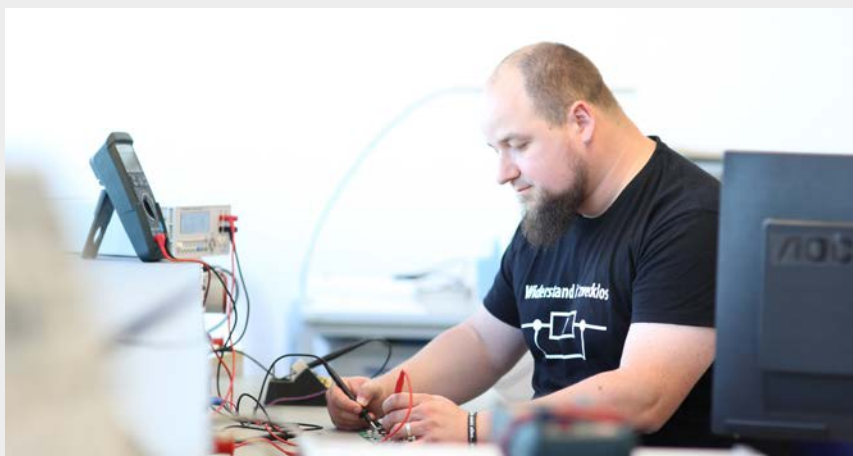


End Assembly and Shipping

Perfect coordination of all parts, professional end assembly as well as suitable packing for national or international transportation are the final key for our high quality supplies.

PROFESSIONAL REALIZATION OF CUSTOMIZED SOLUTIONS

From experience we know, that most projects can be realized with our standard catalogue program. None the less, we help you with customized solutions whenever our regular portfolio does not offer a suitable possibility. Lean structures and full expertise in our own facility enable us to realize customer specific projects in an uncomplicated way.



Research & Development

For making sure, that our electrical devices meet highest standards, we are employing a team of highly specialized hard- and software engineers.



Height Adjustable Benches

Height adjustable benches are becoming standard in many fields. We offer a great variety of solutions, completely assembled, programmed and tested.



Zertifiziert nach ISO 9001:2015



GTÜ Zertifizierungsstelle GmbH



Certified Quality

We are consequently following the ISO 9001 standard with perfectly traceable documentation to ensure reproducible quality even for customized products.

Our furniture is thoroughly tested and certified with regard to stability, ergonomics and possible harmful substances. All electric modules are tested on EMC and safety.



SUPPORTING SERVICES AFTER-SALES

We, from hera, acquired lots of practical experiences over the last 50 years. Not only with regard to the development and manufacturing of laboratory furnitures, high quality electric devices and complex training systems. We also developed extraordinary expertise in planning, installation and after-sales-services. For making sure that projects are realized exactly as per your requirements, you will have your individual project manager from project start to all after-sales-services.



Professional Installation

All shipments are well prepared and accompanied by easy-to-follow assembly instructions with all required fixing materials. If preferred the equipment can be supplied fully assembled or we offer on-site installation services.



ESD Tests

hera offers the periodic testing of your workstation incl. chair and drawer to its ESD properties. Full continuity from bench rack to floor is measured and captured in ESD certificates according to DIN EN 61340-5-1, DIN EN 61340-4-1 and DIN EN 61340-2-3 (VDE 0300 part 5-1 / 2-3, VDE 0303 part 83) . When measuring the system resistance person-shoes-floor we comply with DIN EN 61340-4-5.



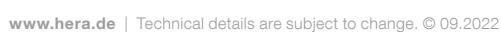
Calibration and Test

Repeating calibrations and electrical tests with test certificate in accordance with the German Social Accident Insurance are done by qualified service technicians at your site.

STANDARD-CONFORMING 2D - AND 3D PLANNINGS

Because your equipment should suit your requirement and not vice versa, our plannings are accompanied by standard-conforming 2D - or 3D drawings. This will give you a clear view of the room concept under consideration of functionality, ergonomics, accident prevention and valid VDE standards.





INDUSTRIAL - & EDUCATIONAL LABS, WORKSHOPS

Our core competences are in industrial - & educational laboratories and workshop equipment. In those fields we offer a broad range of furniture and electrical sources and instruments.

All those products can be combined in endless variations, so that in the end it will meet your requirements to almost a hundred percent.





PROFESSIONAL CONSULTANCE - EITHER IN OUR SHOWROOM OR AT YOUR SITE.



Showroom: Industry



Showroom: Education

IN CASE OF ANY QUESTIONS, PLEASE CONTACT US:

Phone: 0049 7953-8820 / Email: sales@hera.de



CHAPTER 2: PROFI BENCHES

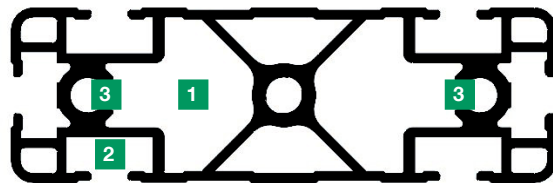
- | | | | |
|------------|---------------------------------------|------------|---|
| 018 | Recommended Colors | 040 | X-Lift Bench Duo |
| 020 | Workbench | 043 | PROFI Corner Elements |
| 022 | Laboratory Bench | 046 | Cable Tray for PROFI Corner Element |
| 024 | Attachment - and Intermediate Bench | 048 | Meeting Corner and ESD Meeting Table |
| 026 | PROFI Bench with Power Legs | 049 | Height Adjustable PROFI Corner Combination |
| 028 | Cable Tray and Rear Paneling | 050 | Power Strips |
| 029 | PROFI Cross Profile and Foot Rest | 052 | Cable Access Elements and Ventilation Grilles |
| 032 | PROFI Cantilever Bench | 053 | Cable Clamp and Brush Channel |
| 034 | C-Lift-Bench | 054 | PC Support, Keyboard Drawer, Keyboard Extension |
| 036 | Spacers for Height Adjustable Benches | 055 | Height Adapter and Heavy Duty Levelers |
| 037 | Casters for Height Adjustable Benches | 056 | Bench Connector and Floor Fixation |
| 038 | X-Lift Bench Quattro | 057 | Slot Cover and Extra Cable Guide |

THREE STRONG PROFILES **FOR INCOMPARABLE FLEXIBILITY**



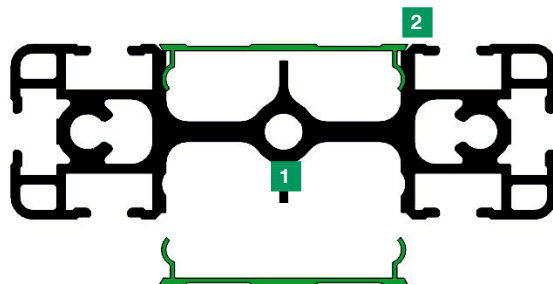
SINGLE Profile

- 1** very stable, closed aluminium profile 125 x 40mm
- 2** vertical slots for the attachment of accessories
- 3** the profile allows unlimited extensions



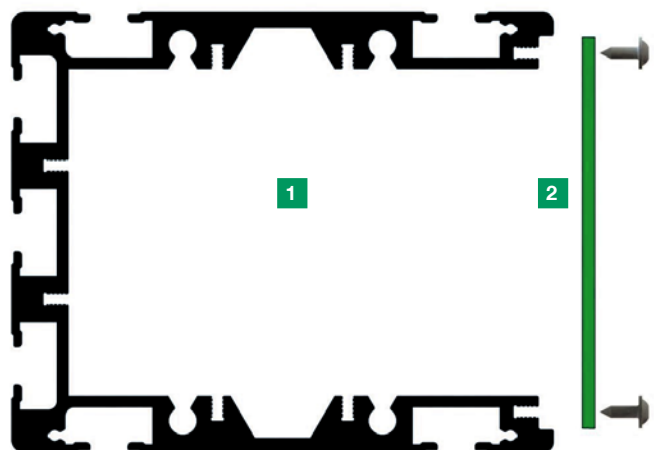
MULTI Profile

- 1** open aluminium profile with same outline than the SINGLE profile
- 2** both sides with clipped aluminium covers for cable integration



ENERGY Profile

- 1** flexibly equipable aluminium profile 125 x 102mm
- 2** for the modular acceptance of KP modules, the profile can be used in horizontal or vertical position



RECOMMENDED COLORS FOR THE PROFI WORKSTATION

Standard color of the chipboard parts, as well as the supporting sheet steel parts is light grey RAL7035. For the aluminium bench legs and extensions you can choose between light grey RAL7035, anthracite RAL7016 or the below listed recommended colors. If you prefer other RAL colors, please ask for our possibilities. All recommended colors are not subject to any surcharges.



fine structure RAL7016

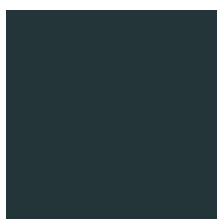
glossy RAL7016

fine structure RAL7035

glossy RAL7035

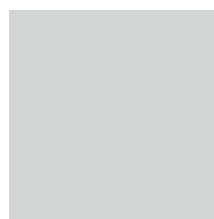
RAL-No. 7016 anthracite

fine structure & glossy



RAL-No 7035 light grey

fine structure & glossy



RAL-No. 7042 traffic grey A

glossy



RAL-No. 9006 white aluminium

glossy



RAL-No. 5002 ultra marine

fine structure & glossy



RAL-No. 5014 pidgeon blue

glossy



RAL-No. 5010 gentian blue

glossy



RAL-No. 5023 distant blue

fine structure



RAL-No. 5003 sapphire blue

glossy



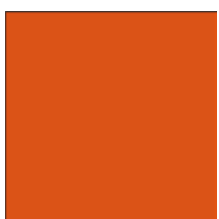
RAL-No. 5018 turquoise

glossy



RAL-No. 2009 traffic orange

glossy



RAL-No. 6029 mint green

fine structure



RAL-No. 3020 traffic red

glossy



RAL-No. 3003 ruby red

glossy



A GOOD BASE TO BUILD ON: **SOLID AND VIBRATION-FREE**

PROFI **WORKBENCH**

- Bench height: 780mm.
- Extraordinary stable bench frame made of tubular steel and middle section. Sides with sleeves for a flush, vibration-free connection of the bench legs. Both sides with thread inserts for the acceptance of suspended containers.
- Hardwearing, light grey 30mm thick bench top (multilayer chipboard according to DIN EN ISO 13894-1. Upper side with 0,8mm high pressure laminate according to DIN EN 438-2), all sides with 3mm PP plastic edge.
- Front edge available in three different versions.
- Four aluminium bench legs with 6 surrounding slots, integrated cable channels, channel covers and leveling screws.
- The front legs are made of SINGLE profile and can be placed further to the rear for unhindered legroom in corner combinations. For the modular acceptance of extensions the bench tops are with bench leg cutout.
- For an easy cable guidance and flexible cable outlet the benches are optionally available with MULTI profile as rear-sided bench legs.
- Durable powder coated according to RAL Code.



Your Advantage of the bench frame:

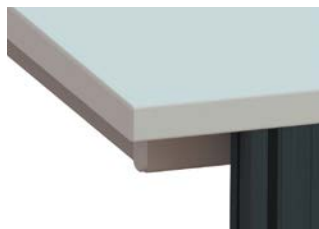
- high stability due to closed tubular steel frame
- distributed load: 500kg
- durable powder coating

**Cable Inserts** flexibly positioned:

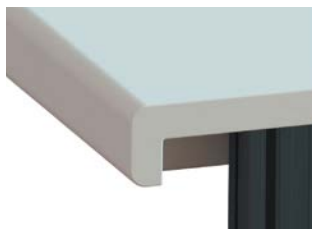
- **419.061.000:** Ø 80/92mm, light grey
- **419.062.000:** Ø 60/72mm, light grey

**ESD Version**

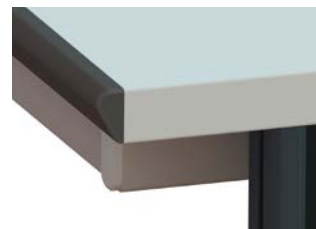
- earthing box with press stud for wrist bands, mounted left or right side of the bench frame
- Volume conductive 3-layer chipboard with conductive HPL layer according to DIN-EN 61340-5-1.
- bench legs with metal leveling screws
- **414.130.890:** 2nd earthing box for ESD bench

**V Front Edge****PP Plastic Edge**

durable PP plastic edge with 3mm radius in bench top color




**70mm Drop Edge**

HPL layer stretched 70mm downwards for covering the bench frame, 15mm radius for high forearm comfort

**PROFitec Edge**

impact resistant front edge made of solid plastic in 10mm radius

PROFI Workbench 40 **T** **BB** **V** **.90** **H**

T Depth	BB Width	V Front Edge	H Rear Profile
6 800mm	08 800mm	PP Plastic Edge	for SINGLE/ MULTI Extensions
7 900mm	09 900mm	0 Standard	1 SINGLE
8 1000mm	10 1000mm	5 ESD 	3 MULTI
	12 1200mm		
	13 1295mm	70mm Drop Edge	for ENERGY Extensions
	15 1500mm	1 Standard	2 SINGLE
	16 1600mm	6 ESD 	4 MULTI
	18 1800mm	PROFitec Edge	
	20 2000mm	2 Standard	
	23 2303mm	7 ESD 	

THE LABORATORY BENCH WITH SPACIOUS CALBE TRAY

PROFI LABORATORY BENCH

- Bench height: 780mm.
- Extraordinary stable bench frame made of tubular steel and middle section. Sides with sleeves for a flush, vibration-free connection of the bench legs. Both sides with thread inserts for the acceptance of suspended containers.
- Cable tray made of sheet steel (200 x 170mm) with rear sided ventilation slots and ergonomic bevelling. Durable light grey powder coating.
- Hardwearing, light grey 30mm thick bench top (multilayer chipboard according to DIN EN ISO 13894-1. Upper side with 0,8mm thick high pressure laminate according to DIN EN 438-2), all sides with 3mm PP plastic edge.
- Front edge available in three different versions.
- Rear sided cable flap with double rubber lip for a flexible cable outlet from cable tray to the bench top. Benches with more than 1200mm width have flaps which are sectioned in the middle, so the flap still can be opened if the bench is heavily loaded.
- Front legs are made of SINGLE profile and can be placed further to the rear for unhindered leg room of corner combinations. For an easy and flexible cable guidance the rear bench legs are made of MULTI profile with detachable aluminium covers. The bench top is with cutouts for the bench legs for the modular fixation of extensions.
- Durable powder coated according to RAL Code.



Your Advantage of cable tray with flaps:



room for power strips, chargers etc. or simple cable guidance



sectioned, so it can be opened even if heavily loaded



double rubber lip to avoid crushed cables



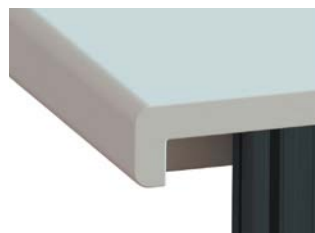
brush strip instead of rubber lip on demand

V Front Edge



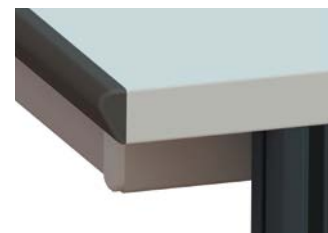
PP Plastic Edge

sturdy PP plastic edge with 3mm radius in bench top color



70mm Drop Edge

HPL layer stretched 70mm downwards for covering the bench frame, 15mm radius for high forearm comfort



PROFIttec Edge

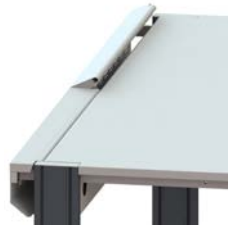
impact resistant front edge made of solid plastic in 10mm radius

K Cable Flap



Standard Flap

90° to the rear opening flap with special hinges



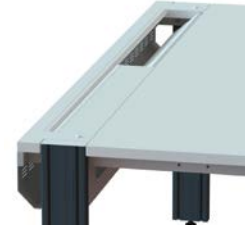
Short Standard Flap

reduced flap depth on demand



180° Flap

to the front opening flap, applicable in combination with KK compact terminal at the rear edge



Downward Opening Flap

with push lock, applicable for heavily loaded bench tops

PROFI Lab Bench 41 T . BB V .9 K 1

T	Depth	BB	Width	V	Front Edge	K	Cable Flap
0	800mm	08	800mm	0	70mm Drop Edge	for SINGLE/ MULTI Extensions	
1	900mm	09	900mm	1	PP Plastic Edge	0	Standard Flap (standard or short)
2	1000mm	10	1000mm	2	PROFIttec Edge	1	180° Flap
		12	1200mm			2	Downward Opening Flap
		13	1295mm				
ESD 		15	1500mm			for ENERGY Extensions	
4	800mm	16	1600mm			7	Standard Flap (standard or short)
5	900mm	18	1800mm			8	180° Flap
6	1000mm	20	2000mm			9	Downward Opening Flap
		23	2303mm				

PROFI ATTACHMENT BENCH

- When placed in a row, the left PROFI bench can be an attachment bench without the left pair of bench legs.
- Extraordinary stable bench frame gapless attached to the left side of the bench.
- This reduces the bench width by 40mm.
- Attachment benches are not applicable for bench racks or shelves with cutout for extensions.

PROFI Attachment Bench 4XX.XXX.905



PROFI INTERMEDIATE BENCH

- When placed in a row, the middle bench can be an intermediate bench without any bench legs.
- Extraordinary stable bench frame gapless attached to the left side of the bench.
- This reduces the bench width by 80mm.
- Intermediate benches are not applicable for bench racks or shelves with cutout for extensions.


PROFI Intermediate Bench 4XX.XXX.906



PROFI COMPENSATING PLATE

- Customized width (please state).
- Hardwearing, light grey 30mm bench top with 3mm PP plastic edge and different types of front edge.
- Two steel brackets with durable light grey powder coating.

PROFI Compensating Plate 41 T .520. 0 V 0

T Depth		ESD 		V Front Edge	
0	800mm	4	800mm	0	70mm Drop Edge
1	900mm	5	900mm	1	PP Plastic Edge
2	1000mm	6	1000mm	2	PROFitec Edge



CROSS STIFFENING FOR PROFI BENCHES

- Stable brace made of sheet steel.
- For the flexible assembly between the rear bench legs.
- Durable powder coated according to RAL Code.
- Dimensions: 120 x 30mm (DxH).

Cross Stiffening			
800mm	419.050.901	1500mm	419.053.901
900mm	419.057.901	1600mm	419.053.906
1000mm	419.051.901	1800mm	419.054.901
1200mm	419.059.906	2000mm	419.055.901
1295mm	419.052.901	2303mm	419.056.901



SIDE STIFFENING FOR PROFI BENCH, PAIR

- Two aluminium profiles (40 x 40mm).
- For the assembly between the rear and front bench leg.
- Durable powder coated according to RAL Code.

Side Stiffening	
800mm	419.058.901
900mm	419.060.901
1000mm	419.059.901



SURCHARGE FOR MOBILE PROFI BENCH

- Bench legs adaption for a total bench height of 780mm.
- Set of casters, two with brake.
- Please add cross - and side stiffening.

Note:

11HE suspended containers are only possible for max. 75mm caster dimension.



Twin Caster
75mm ESD

Twin Caster
Design 100mm

Heavy Duty Caster
100 / 125mm

Solid Foot with
Lifting Caster




Surcharge for Mobile PROFI Bench 419. **D 4 A . 00 P**

D Diameter (Load capacity per caster)

0 Twin Caster 75mm (80kg)	3 Twin Caster Design 100mm (100kg)
1 Heavy Duty Caster 100mm (100kg)	4 Solid Foot with Lifting Caster 63mm (500kg)
2 Heavy Duty Caster 125mm (100kg)	

A Version

1 Standard
2 ESD 

P Profile

0 SINGLE
3 MULTI

THE LABORATORY BENCH WITH EXTENDABLE ENERGY PROFILE

PROFI BENCH WITH POWER LEGS

- Bench height: 780mm (equipable with: 2x 16KP).
- Extraordinary stable bench frame made of tubular steel with extra middle section. Sides with sleeves for a flush vibration-free connection of the bench legs. Both sides with thread inserts for the assembly of suspended containers.
- Front bench legs are made of the aluminium profile SINGLE and can be placed further to the rear for unhindered leg room in corner combinations.
- The rear bench legs are made of modular equipable ENERGY profile 102 x 125mm (WxD) with 7 surrounding slots. The front side is prepared for the acceptance of modules in KP raster (see chapter 10). Perfect equipment for power legs are sockets, interfaces, pressured air, ect.
- For a completely hidden cable run between floor, cable tray and bench rack, the profile can be continuously extended without any loss of stability.
- Hardwearing, light grey 30mm thick bench top (multilayer chipboard according to DIN EN ISO 13894-1. Upper side with 0,8mm thick high pressure laminate according to DIN EN 438-2), All sides with 3mm PP plastic edge. Three different types of front edges.
- Optionally with rear sided cable flap and double rubber lip, as well as cable tray made of sheet steel (200 x 170mm) with rear sided ventilation slots and ergonomic bevelling. Durable, light grey powder coated.
- Bench legs durable powder coated according to RAL Code.






Your Advantage
of PROFI Bench with Power
Legs

- easy cabling from bench rack to under bench top, even for big cable bundles
- PCs and other electrical devices can be plugged in under the bench
- broad variety of available modules
- the spacious profile can also be used for cable guidance between to bench



PROFI Bench with Power Legs								41	T	.	BB	V	.	3	K	1
T	Depth		BB	Width		V	Front Edge		K	Cable Flap						
0	800mm		08	800mm		0	70mm Drop Edge		0	Standard Flap						
1	900mm		09	900mm		1	PP Plastic Edge		1	180° Flap						
2	1000mm		10	1000mm		2	PROFitec Edge		2	Downward Opening Flap						
			12	1200mm					5	no Flap						
ESD			13	1295mm												
4	800mm		15	1500mm		▶ see page 023 for details			▶ see page 023 for details							
5	900mm		16	1600mm												
6	1000mm		18	1800mm												
			20	2000mm												
			23	2303mm												

PROFI SUSPENDED CABLE TRAY

- Stable and spacious cable tray made of sheet steel, rear side with ventilation slots, ergonomic bevelling and cable access to the front and downwards.
- Durable, light grey powder coating.
- Incl. assembly set for the fixation to the bench legs.



Standard Cable Tray



Cable Tray with Brush

PROFI Suspended Cable Tray 419. BB 0. F 2 A						
BB Width			F Rear Profile			A Version
08	800mm	15	1500mm	0	with cutout for SINGLE / MULTI	0 Standard Cable Tray
09	900mm	16	1600mm	9	no cutout for SINGLE / MULTI	5 Cable Tray with Brush (60mm rear overhang)
10	1000mm	18	1800mm	1	with cutout for ENERGY	
12	1200mm	20	2000mm	8	no cutout for ENERGY	
13	1295mm	23	2303mm			

PROFI COVERS FOR CABLE TRAY, PAIR

- Two covers (left and right) made of sheet steel.
- Durable, light grey powder coating.
- Incl. assembly set for the fixation to the bench leg.

PROFI Covers for Cable Tray, Pair	
419.035.000	for Standard Cable Tray
419.035.005	for Cable Tray with Brush



REAR PANELING FOR PROFI BENCH

- Light grey 19mm melamine resin covered chipboard with 2mm PP plastic edge.
- Incl. assembly set for the fixation to the bench legs.




for **PROFI Lab Bench**
with Cable Tray
Height 450mm



for **PROFI Workbench**
without Cable Tray
Height 650mm



for all **PROFI Benches**
Height: 1300mm

Rear Paneling				418.BB H . 00 A			
BB Width		H Height		A Version			
08	800mm	15	1500mm	4	450mm	0	Standard
09	900mm	16	1600mm	6	650mm	5	ESD 
10	1000mm	18	1800mm	9	1300mm		
12	1200mm	20	2000mm				
13	1295mm	23	2303mm				



SOCKET STRIP IN CABLE TRAY


- Benches with cable tray can be added by extra socket strips e.g. for PC connection.
- Socket strips can be integrated into the bench wiring.

Socket Strip in Cable Tray	
293.640.100	4fold, Type F, white, 1,5m Cable
293.660.100	6fold, Type F, white, 1,5m Cable
293.642.100	4fold, Type G, white, 1m Cable
293.660.986	6fold, Type B with Switch, white, 0,6m Cable
293.600.000	Surcharge - Wired into Bench Electricity
293.600.030	Firmly attached in Cable Tray



REAR BENCH TOP UPSTAND

- Light grey 30mm thick melamine resin covered chip board with 3mm PP plastic edge firmly connected to the bench top as rear sided stop edge.
- Height: 50mm.

Rear Bench Top Upstand	
419.700.000	Standard per Meter
419.700.050	ESD per Meter 



PROFI CROSS PROFILE


- For installation on variable height between the rear sided bench legs. The cross profile serves as support for a foot rest.
- Durable powder coated according to RAL Code.

PROFI Cross Profile 419.07 B .900					
B Width					
0	720mm	2	1215mm	5	1920mm
7	820mm	3	1420mm	6	2223mm
1	920mm	8	1520mm		
9	1120mm	4	1720mm		



PROFI FOOT REST, HEIGHT ADJUSTABLE

- Two anodized aluminium profiles, which are assembled to the cross profile. Foot area with surrounding frame and rubber mat 620 x 540mm (WxD).
- Spring mechanics for a comfortable height adjustment in sitting position. The foot area can be adjusted in depth.
- Height adjustment: floor to max. 400mm.

PROFI Foot Rest, Height Adjustable	
491.090.100	Standard
491.095.100	ESD 



SITTING OR STANDING: **PERFECTLY STABLE IN EACH POSITION!**

Generally our height adjustable benches vary in the types and numbers of lifts. Furthermore it is up to the customer whether only the bench top or the full bench configuration should move up and down. We offer manual height adjustment, hand crank adjustment and electric drives.

No matter what solution you decide for, they have one thing in common: all are high quality systems with long life cycle and extraordinary stability!





HEIGHT ADJUSTMENT EVEN FOR RETROFITTING

OPTION CANTILEVER LIFT FOR PROFI BENCH

Each PROFI workbench or PROFI lab bench can be equipped with a cantilever lift, even as a later-on modification with reasonable effort. When using height adjustable benches we recommend the use of spacers for safety reasons.

Due to the fact, that the legs of all PROFI benches can be placed further to the rear, the benches can be equipped with cantilever lifts even later on.

Height adjustment is either manually with a locking bolt, by hand crank or electrically with a hydraulic lifting system.

The option Cantilever Lift for PROFI benches consists of:

- Nicely shaped cantilever base with two outer shells and special drive mechanism.
- Rear sided perforated backplane (H:300mm) for high rigid stability.
- 2 or 4 hydraulic lifts.
- Central mounted hydraulic pump under the bench top or in the cable tray for hand crank or electric adjustment.
- Lowest bench position 750mm, in case of retrofitting: the initial bench height.
- Complete set of hoses hiddenly installed under the bench top.





Hand Crank Height Adjustment

- Two hydraulic cylinders (only for bench depth 800) or four hydraulic cylinders (bench depth 800/900/1000) installed in PROFI profiles.
- Central hydraulic pump installed under the bench top.
- Hand crank driven, the hand crank can be folded under the bench top.
- Lift transmission: 5mm/ rotation.



Electric Height Adjustment

- Two hydraulic cylinders (only for bench depth 800) or four hydraulic cylinders (bench depth 800/900/1000) installed in PROFI profiles.
- Central hydraulic pump installed under the bench top or in the cable tray.
- Lifting speed: 15mm / sec.
- Control with overload protection.
- Operator panel with memory for 4 heights (display with height indication).



Cantilever Leg for PROFI Bench

400. **BB T . HH V**

BB Width	T Depth	HH Height Adjustment	V Type
08 800mm	0 800mm	10 Manual Height Adjustment (750 - 1250mm)	1 bench installed
09 900mm	1 900mm	23 Hand Crank with 2x Cylinders (3000N) Lift: 300mm	5 retrofit
10 1000mm	2 1000mm	24 Hand Crank with 2x Cylinders (3000N) Lift: 400mm	
12 1200mm		25 Hand Crank with 2x Cylinders (3000N) Lift: 500mm	
13 1295mm		43 Hand Crank with 4x Cylinders (3500N) Lift: 300mm	
15 1500mm		44 Hand Crank with 4x Cylinders (3500N) Lift: 400mm	
16 1600mm		45 Hand Crank with 4x Cylinders (3500N) Lift: 500mm	
18 1800mm		33 Electric Drive with 2x Cylinders (3000N) Lift: 300mm	
20 2000mm		34 Electric Drive with 2x Cylinders (3000N) Lift: 400mm	
23 2303mm		35 Electric Drive with 2x Cylinders (3000N) Lift: 500mm	
		53 Electric Drive with 4x Cylinders (3500N) Lift: 300mm	
		54 Electric Drive with 4x Cylinders (3500N) Lift: 400mm	
		55 Electric Drive with 4x Cylinders (3500N) Lift: 500mm	

410.004.907:
Synchronization
Cable for Bench
Combinations



PROFI C-LIFT - THE POWERFUL

PROFI C-LIFT BENCH

- Height adjustable between 730 - 1180mm (lift: 450mm).
- Heavy duty lifts with anodized aluminium profile.
- The lifts are with smooth spindle drive, profile dimensions 60 x 240mm. Six surrounding T-slots for the flexible acceptance of accessory (e.g. PC support).
- The lifts are fully synchronized and the control is mounted under the bench top with hidden cable run between lifts and operator panel. Freely programmable end positions as well as anticollision function with programmable tripping force to prevent squeezing of persons and things. If the programmed force is exceeded, the lifts stop and reverse movement.
- Extraordinary stable bench frame made of tubular steel with extra middle section. Thread inserts for both sided acceptance of suspended containers. Durable light grey powder coating.

- The bench frame is prepared for the acceptance of SINGLE / MULTI - or ENERGY extensions with provision for hidden cable runs into the cable tray.
- Nicely shaped cantilever base with leveling screws.
- Rear side with perforated backplane (H: 300mm) for a perfect lateral stability.
- Cantilevers, backplane and adapter for extension are powder coated according to RAL Code.
- Durable, light grey 30mm thick bench top (multilayer chip-board according to DIN EN ISO 13894-1. Upper side with 0,8mm thick high pressure laminate according to DIN EN 438-2), sides with 3mm PP plastic edge, front edge available in 3 different versions.
- Optionally with rear sided cable flap.





412.180.701 PROFI C-Lift Bench with rear side opening standard flap and 70mm drop edge (lifts are not included and need to be ordered separately)

Your advantage with the heavy duty lifts:

- fully synchronized lifts up to 640kg load
- high lateral stability due to special bench frame and extra stabilizer
- all sides prepared for the acceptance of accessory




Many practical details:

- operator panel with memory function and bench height indication (4 memories)
- optional with drag chain for cable management between cable tray and floor
- optional with spacers to avoid shearing effect



PROFI C-Lift Bench without Lifts 41 T . BB V .7 K F

T Depth	BB Width	V Front Edge	K Cable Flap	F for Extension
0 800mm	08 800mm	0 70mm Drop Edge	0 Standard Flap	1 MULTI / SINGLE
1 900mm	09 900mm	1 PP Plastic Edge	1 180° Flap	3 ENERGY Standard / 45°
2 1000mm	10 1000mm	2 PROFitec Edge	2 Downwards Opening Flap	
	12 1200mm		5 no Flap	
ESD 	13 1295mm	► Details: see page 021	► Details: see page 023	► Details: see page 023
4 800mm	15 1500mm			
5 900mm	16 1600mm			
6 1000mm	18 1800mm			
	20 2000mm			
	23 2303mm			

Lifts

Force

Speed

410.003.160	2x 800N	max. 18mm/s
410.003.320	2x 2000N	max. 9mm/s
410.003.321	2x 2000N	max. 18mm/s
410.003.640	2x 3200N	max. 9mm/s
410.003.000	no lifts	C-Leg bench, fixed height

Accessory:

410.003.907:
Synchronization cable for bench combinations



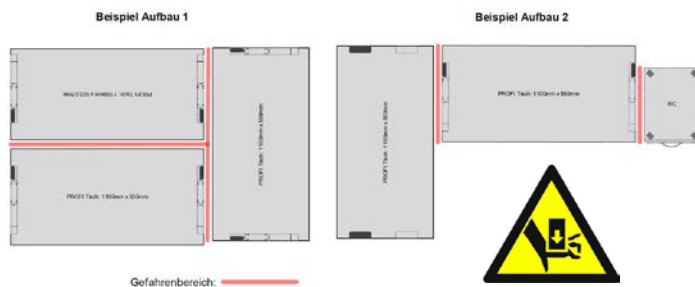
293.600.100:
Lift control connected to the input of the mains panel

293.600.010:
Lift control connected to the output of the mains panel

PROTECTORS FOR PROFI CANTILEVER AND C-LIFT BENCHES

Height adjustable benches need to be placed in safe distance from one another to prevent accidents due to shearing effect. The spacers are in accordance with DIN EN 527-1.

The red area indicates the danger zones.



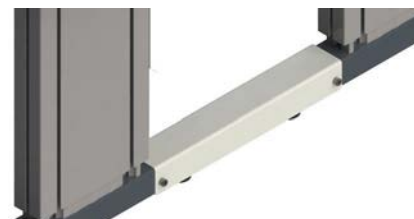
419.021.100:
Spacer for row configurations



419.021.200:
Spacer between height adjustable and regular benches



419.023.100:
Spacer for cantilever benches in back-to-back position



419.022.100:
Spacer for back-to-back configurations at the base

Spacers for PROFI Cantilever - and PROFI C-Lift Benches

419.021.100	Spacer 40mm for PROFI Cantilever or / and C-Lift Benches (row configuration)
419.021.200	Spacer Bracket 40mm for PROFI Cantilever or C-Lift Bench with standard bench, container, wall, etc (row configuration)
419.023.100	Spacer 40mm for PROFI Cantilever Benches (back-to-back)
419.023.200	Spacer Bracket 40mm for PROFI Cantilever Benches to standard bench, container, wall, etc (back-to-back)
419.022.100	Spacer 40mm for C-Lift Benches (back-to-back)
419.022.200	Rear sided Bracket 40mm for C-Lift Benches to standard bench, container, wall, etc (back-to-back)

OPTION DRAG CHAIN FOR HEIGHT ADJUSTABLE BENCHES

- Drag chain for a height variable cable guidance for height adjustable benches.
- Installed at the lower side of the cable tray.
- Inner dimensions: 38x20mm, outer dimensions: 49x25mm (WxH).
- Length: 1100mm.

Option Drag Chain for Height Adjustable Benches

410.001.910	PROFI Cantilever: between cable tray and base
410.011.910	PROFI Cantilever: to adjoining bench in a row
410.003.910	C-Lift: between cable tray and base
410.013.910	C-Lift: to adjoining bench in a row



410.001.910



410.011.910



410.003.910

OPTION MOBILE PROFI CANTILEVER BENCH

The option mobile PROFI cantilever bench is available with lifting height 300mm or 400mm and consists of:

- Set of cantilevers with reduced leg length to maintain standard bench height.
- Set of casters „Design“, diameter 100mm (2x with brakes and 2x position lock).
- Load capacity: max. 300kg.
- Adjustable range with 300mm lifts: 750 - 1050mm.
- Adjustable range with 400mm lifts: 750 - 1150mm.



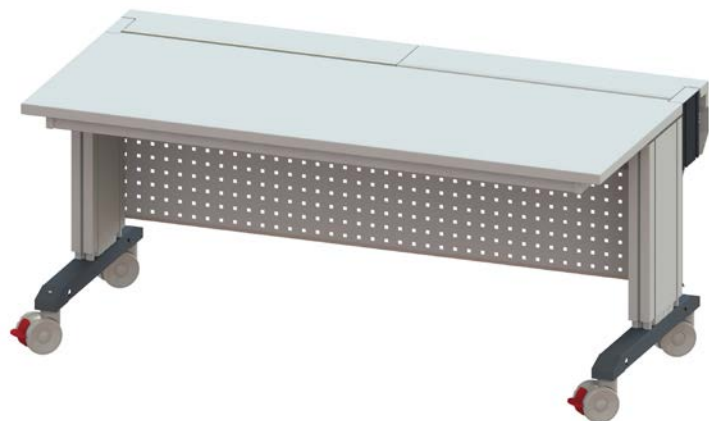
Option Mobile PROFI Cantilever Bench

400.999.007	Standard
400.999.008	ESD

OPTION MOBILE C-LIFT BENCH

The option mobile C-Lift bench consists of:

- Set of lifts with lifting height of 350mm.
- Set of casters „Design“, diameter 100mm (2x with brakes and 2x position lock).
- Load capacity: max. 300kg.
- Adjustable range: 730 - 1080mm.



Option mobile C-Lift Bench (E: 7= Standard / 8=ESD)

410.003.16E	Lift: 350mm / 2x 800N / 18mm/s
410.003.32E	Lift: 350mm / 2x 2000N / 9mm/s
410.003.33E	Lift: 350mm / 2x 2000N / 18mm/s
410.003.00E	C-Lift Base without Lifting Mechanism



Mobile PROFI Cantilever Bench



Mobile C-Lift Bench

THE X-LIFT BENCH WITH IMPRESSIVE LIFTING HEIGHT

Duo and Quattro:

- Impressive lifting height of 650mm.
- High speed up to 38mm/s.
- Silent operation.
- Lifting force up to 480kg.
- Intuitive handling with flexible position memory.



PROFI X-LIFT QUATTRO

Base for height adjustable X-Lift bench (630 - 1280mm) consisting of:

- 4 telescopic lifts with silent operating spindle drive, durable powder coating in white aluminium. Cross section of lifts: 50 x 80mm. Lifting height: 650mm. Lifting force: max. 4 x 1.200N. Lifting speed: max. 38mm/s.
- Fully synchronized control installed under the bench top with hidden cable run and anticollision function.
- Control element with memory function and digital height indication.
- Solid and nicely shaped sheet steel cantilevers with leveling screws.
- Durable powder coated according to RAL Code.
- Sheet steel stiffener installed between the rear bench legs for perfect cross stability.
- Solid bench frame made of sheet steel with intermediate section and integrated cable tray (200x170mm) with adapter for extensions and integrated brush strip (40mm) for cable access.
- All steel parts durable dissipative powder coated in light grey.
- Bench top to be selected below.



Base for PROFI X-Lift Quattro

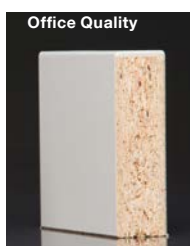
41 **T** **BB** 0.800, **F**

T Depth				BB Width				F Extensions	
Standard		ESD		08	800mm	15	1500mm	0	not prepared for Extensions
0	800mm	6	800mm	09	900mm	16	1600mm	1	prepared for SINGLE/MULTI/ENERGIE
1	900mm	7	900mm	10	1000mm	18	1800mm		
2	1000mm	8	1000mm	12	1200mm	20	2000mm		
				13	1295mm	23	2303mm		

Bench Top for PROFI X-Lift Quattro:

15 **T** **BB** **P** **K** **V** **F**

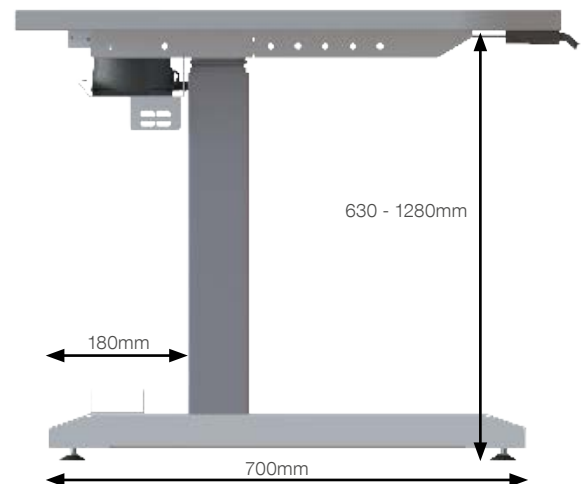
T Depth	BB Width	P Type		K Flap	V Edge	F Extensions
0 800	08 800	0 HPL Surface	7 ESD HPL Surface	1 none	0 PP 3mm	0 no Cutout
1 900	-	1 Office Quality	8 ESD Office Quality	2 with 180°	1 PROFitec	1 for SINGLE/ MULTI
2 1000	23 2303	4 Beech Multiplex 30mm				2 for ENERGY



PROFI X-LIFT DUO

Base for height adjustable X-Lift bench (630 - 1280mm) consisting of:

- 2 telescopic lifts with silent operating spindle drive, durable powder coating in white aluminium.
Cross section of lifts: 60 x 90mm.
Lifting height: 650mm.
Lifting force: max. 2 x 800N.
Lifting speed: max. 38mm/s.
- Fully synchronized control installed under the bench top with hidden cable run and anticollision function (programmable shut-off force in case of collision, with stop and reverse function).
- Intuitive control element with memory function (3 positions), controllable by app.
- Solid and nicely shaped sheet steel cantilevers with leveling screws. Depth: 700mm.
- Stable H-frame made of sheet steel with integrated cable tray (160 x 95mm) at the rear side. Durable dissipative powder coated in light grey.
- Optionally with cable tray between the cantilevers for extra stability and cable guidance for more benches in a row.
- Please choose bench top on page 039, the bench is supplied completely assembled.



BASE FOR PROFI X-LIFT DUO

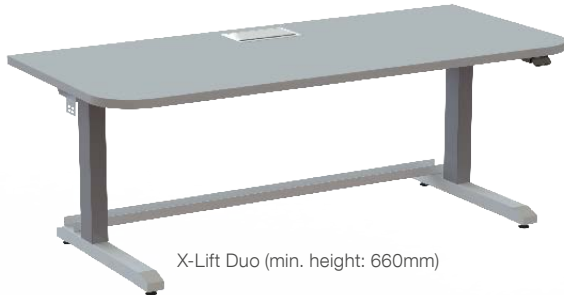
Base for PROFI X-Lift Duo 193. **BB** 0. **A** 01

BB Width

06	600mm	14	1400mm
08	800mm	16	1600mm
10	1000mm	18	1800mm
12	1200mm	20	2000mm

A Type

0	Standard
1	with Cantilever Cable Tray



Note: select bench top individually (max. 900mm deep)

BENCH TOPS IN OFFICE QUALITY

- Melamine resin covered 3-layer chipboard.
- All sides with PP plastic edge.
- Customized dimensions.


ESD Version:



- Volume conductive 3-layer chipboard with conductive HPL layer according to DIN-EN 61340-5-1.

Bench Top in Office Quality 10 **A** .0 **ST** . **F** 00

A Version

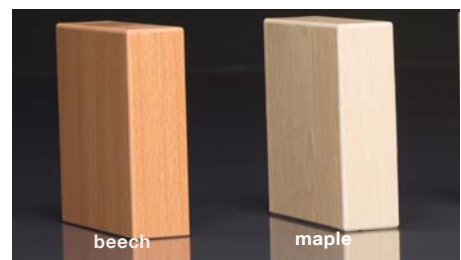
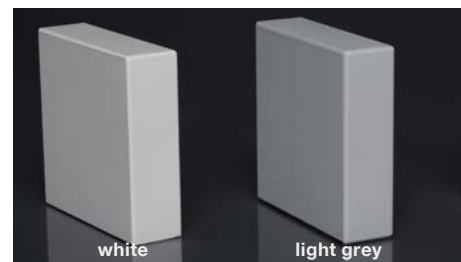
1	Standard
8	ESD 

ST Thick

08	8mm
19	19mm
25	25mm
00	28mm

F Color

5	light grey
8	white
9	beech / maple (non ESD)



HIGH PRESSURE LAMINATED BENCH TOPS

- 3-layer chipboard according to DIN 68761. Upper side with 0,8mm high pressure laminate according to DIN 16926 and 53799).
- All sides with 3mm PP plastic edge.
- Thickness: 30mm.


ESD Version:



- Volume conductive 3-layer chipboard with conductive HPL layer according to DIN-EN 61340-5-1.

High Pressure Laminated Bench Top 10 **A** .000. **F** 00

A Version

0	Standard
7	ESD 

F Color

5	light grey
8	white
9	maple / beech (not ESD)

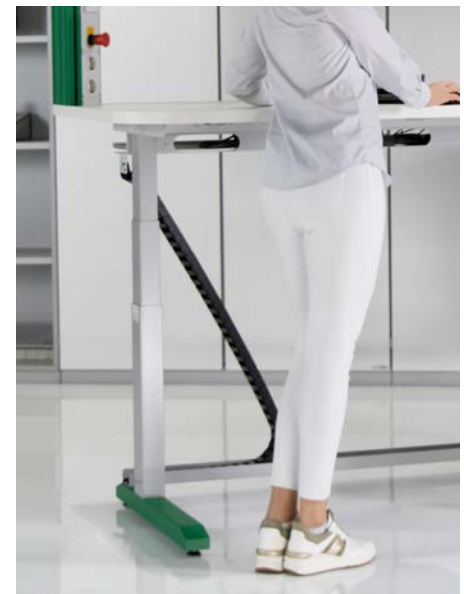


ACCESSORY FOR X-LIFT BENCH

Accessory for X-Lift Bench	
410.005.918	Intuitive Control Element with Position Memory
410.005.909	Programming Software with Cable
410.005.929	Synchronization cable (max. 4 controls)
419.021.100	Spacer 40mm for Row Configurations
410.003.920	Drag Chain between Cable Tray and Cantilever
410.013.920	Drag Chain to adjacent Bench (Row Configuration)
293.600.100	Lift Control connected to Input of Mains Panel
293.600.010	Lift Control connected to Output of Mains Panel




410.005.918: Option intuitive control element with control app and position memory



410.003.910: Drag chain between cable tray and cantilever

X-LIFT ADAPTER FOR SUSPENDED CONTAINERS

- Lower side of the bench top with thread inserts for the attachment of suspended containers either on right and left side.
- Wooden adapter made of 19mm melamine resin covered chipboard.
- Height: 50mm.

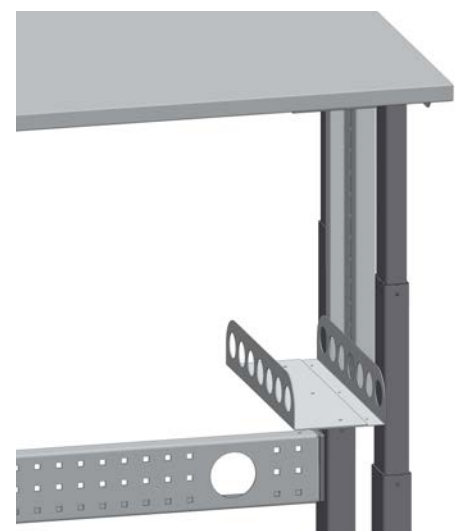
X-Lift Adapter for Suspended Container		43	A	000.	T	80
A	Version	T	Depth			
1	Standard	5	580mm			
3	ESD 	6	680mm			



PC SUPPORT FOR X-LIFT BENCH

- Two sheet steel parts for the assembly to the lower side of the bench.
- Stepless adjustable in width and stop edge at the rear side.
- Durable light grey powder coated.
- Dimensions: 200 x 500mm (DxH).

PC Support for X-Lift Bench	
491.082.100	for PC Width: 160 - 210mm
491.082.150	for PC Width: 130 - 180mm
491.082.200	for PC Width: 90 - 130mm



COMBINE MORE BENCH ELEMENTS TO AN ENTIRE PANORAMA

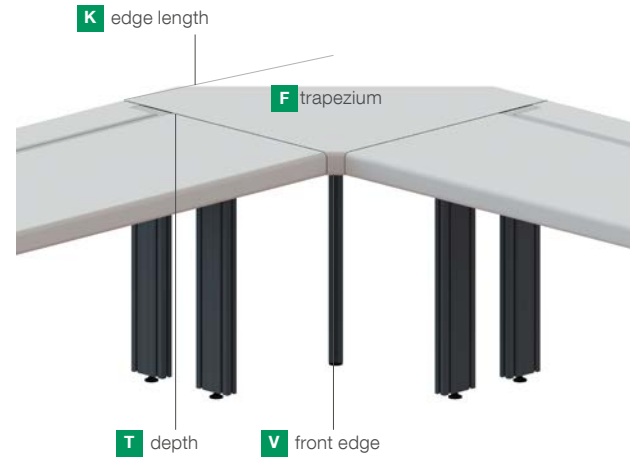
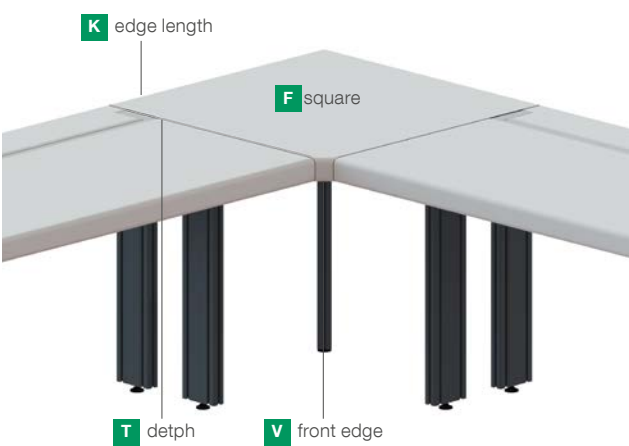
The PROFI system offers countless options and accessory for the realization of individual workstations or group workstations. If you opt for a solution, later-on enhancements are of cause always possible.




PROFI CORNER ELEMENT SYMMETRIC

- Total height: 780mm.
- Hardwearing, 30mm thick light grey corner plate with 3mm PP plastic edge, prepared for the acceptance of the supporting leg.
- Two sheet steel brackets with durable light grey powder coating.
- Incl. supporting leg with mounting plate, durable powder coated according to RAL Code.

Front Edge Length (edge length/bench depth):
582mm (1213/800); 331mm (1035/800); 50mm (835/800)
441mm (1213/900); 190mm (1035/900); 50mm (935/900)
300mm (1213/1000); 50mm (1035/1000)



PROFI Corner Element Symmetric 4 F T . 50 K . A V 3

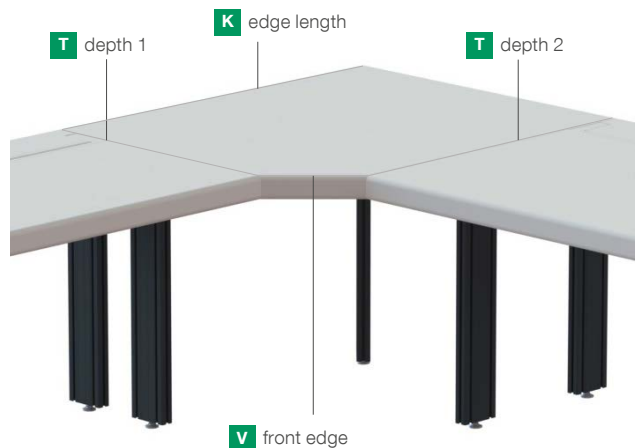
F Form	T Depth	K Edge Length	A Version	V Front Edge
0 Square	0 800mm	0 1213mm	0 Standard	0 70mm Drop Edge
1 Trapezium	1 900mm	1 1035mm	5 ESD 	1 PP Plastic Edge
	2 1000mm	2 935mm		2 PROFIttec Edge
		4 835mm		




Bench Panorama with Squared Corner Elements

PROFI CORNER ELEMENT ASYMMETRIC

- Please state the bench depth of the left and right adjoining bench.
- Hardwearing, 30mm thick light grey corner plate with 3mm PP plastic edge, prepared for the acceptance of the supporting leg.
- Two sheet steel brackets with durable light grey powder coating.
- Incl. supporting leg with mounting plate, durable powder coated according to RAL Code.



PROFI Corner Element Asymmetric 40 **T** .50 **K** . **A** **V** 3

T Depth 1 / 2	K Edge Length	A Version	V Front Edge
3 800 / 900mm	0 1200 x 1000mm	0 Standard	0 70mm Drop Edge
4 800 / 1000mm	1 depth + 35mm	5 ESD 	1 PP Plastic Edge
5 900 / 800mm			2 PROFitec Edge
6 900 / 1000mm			
7 1000 / 800mm			
8 1000 / 900mm			

PROFI CORNER ELEMENT TRIANGLE

- Hardwearing, 30mm thick light grey corner plate with 3mm PP plastic edge.
- Two sheet steel brackets with durable light grey powder coating.
- Incl. assembly set for the fixation to the PROFI bench.




Meeting Corner with Corner Element 270°



Bench Combination with Corner Element 45°

PROFI Corner Element Triangle 4 **F** **T** .505. **A** **V** 3

F Form	T Depth	A Version	V Front Edge
0 45°	0 800mm	0 Standard	0 70mm Drop Edge
1 270°	1 900mm	5 ESD 	1 PP Plastic Edge
	2 1000mm		2 PROFitec Edge

DIAGONAL CABLE TRAY FOR CORNER ELEMENT

- Stable and spacious cable tray made of sheet steel, optically identical to the cable tray of the PROFI lab bench.
- Rear side with ventilation slots and ergonomic bevelling, front and rear side with cable access for hidden cable runs.
- Durable, light grey powder coating.
- Incl. assembly set for the height adjustable fixation to the PROFI bench legs.
- Dimensions: 195 x 200mm (WxH).



Edge Length			Edge Length	
835 x	835mm	419.500.002	1200 x 1000mm	419.512.002
935 x	935mm	419.501.002	1035 x 935mm	419.512.012
1035 x	1035mm	419.502.002	1035 x 835mm	419.512.022
1213 x	1213mm	419.504.002	935 x 835mm	419.512.032
1000 x	1200mm	419.510.002	835 + 45°	419.514.002
935 x	1035mm	419.510.012	935 + 45°	419.515.002
835 x	1035mm	419.510.022	1035 + 45°	419.516.002
835 x	935mm	419.510.032		

CORNER CABLE TRAY FOR CORNER ELEMENT

- Two stable and very spacious cable trays made of sheet steel, optically identical to the cable tray of the PROFI lab bench.
- Rear side with ventilation slots and ergonomic bevelling, front and rear side with cable access for hidden cable runs.
- Durable, light grey powder coating.
- Incl. assembly set for the height adjustable fixation to the PROFI bench legs.
- Dimensions: 200 x 200mm (WxH).

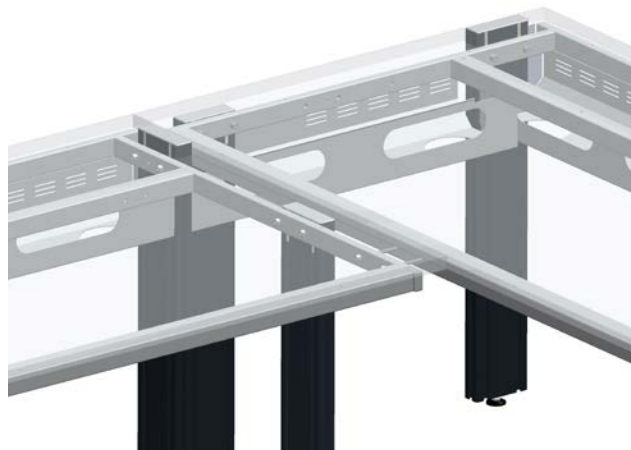


Edge Length			Edge Length	
835 x	835mm	419.520.002	1200 x 1000mm	419.532.002
935 x	935mm	419.521.002	1000 x 1200mm	419.530.002
1035 x	1035mm	419.522.002	1213 x 1213mm	419.524.002



ASSEMBLY SET FOR L-COMBINATION

- Assembly set for setting up a L-Combination with two PROFI benches.
- Incl. bore in the front of the bench frame.

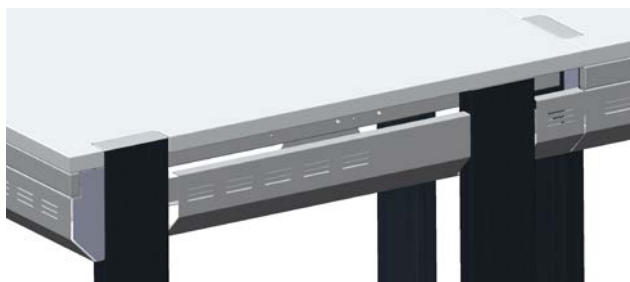


Assembly Set for L-Combination

409.500.000

CABLE TRAY FOR L-COMBINATION

- Compensating cable tray for L-Combinations, to be attached to the side of the adjoining bench to enable gapless cable runs.
- Stable cable tray made of sheet steel, optically identical to the cable tray of the PROFI laboratory benches or C-Lift Benches.
- Durable, light grey powder coating.
- Incl. assembly set for the height adjustable fixation to the PROFI bench legs.
- Dimensions: 200 x 200mm (WxH).



Left Side	for PROFI Bench	for C-Lift Bench	Right Side	for PROFI Bench	for C-Lift Bench
Bench Depth: 800mm	419.520.102	419.520.103	Bench Depth: 800mm	419.532.102	419.532.103
Bench Depth: 900mm	419.521.102	419.521.103	Bench Depth: 900mm	419.530.102	419.530.103
Bench Depth: 1000mm	419.522.102	419.522.103	Bench Depth: 1000mm	419.524.102	419.524.103

PROFI BENCH LEG WITH MOUNTING PLATE

- Bench leg made of SINGLE profile with leveling screw, mounting plate and assembly set.
- For the variable assembly to different bench top elements.
- Durable powder coated according to RAL Code.
- Height: 750mm.

PROFI Bench Leg with Mounting Plate

401.000.900	Symmetric
401.001.900	Asymmetric



401.001.900



401.000.900

PROFI MEETING ELEMENT

- Hardwearing, 30mm thick light grey corner plate with 3mm PP plastic edge.
- Sheet steel bracket with durable light grey powder coating.
- Diameter: 2x bench depth.
- Incl. assembly set for the fixation to the PROFI bench legs.
- Note: supporting leg not included!



Meeting Element with half - and quarter circle elements




Meeting Element with full circle element

PROFI Meeting Element 40 T .53 K .000				
T Depth	K Circle			
6 800mm	Quarter		Half	Full
7 900mm	0 Standard		2 Standard	4 Standard
8 1000mm	5 ESD 		7 ESD 	9 ESD 

HEIGHT ADJUSTABLE SIDE TABLE

Multipurpose table for the flexible use in laboratories and ESD areas, e.g. as meeting - or notebook area.

- Total height: 750 - 1150mm.
- Round (diameter: 750mm) bench top 30mm thick with surrounding 3mm PP plastic edge.
- Stable chromated lifting column, 75mm diameter.
- Pneumatic spring, blocking in each position.
- Polished aluminium base with glides, diameter 70mm.
- ESD version with volume conductive 3-layer chipboard with conductive HPL layer according to DIN-EN 61340-5-1.

Height Adjustable Side Table	
118.100.500	Standard
118.100.000	ESD 



PROFI CANTILEVER OR C-LIFT IN CORNER COMBINATIONS

- Corner combinations with 2 height adjustable benches in L-Combination or with extra corner element.
- Synchronization cable for synchronizing two or more benches.
- Depending on the configuration up to 7 lifts can be synchronized.

Your advantages:

- Synchronization of max. 7 lifts
- Lifting capacity max. 1200kg

Accessory for Height Adjustable Combinations

410.004.907	Synchronization Cable / PROFI Cantilever Combin.
410.003.907	Synchronization Cable / C-Lift Combinations
940.817.100	Assembly Set for C-Lift L-Shape



Height Adjustable L-Combination with 4 Lifts



Height Adjustable C-Lift Combination with Corner Element



L-Combination with 3x Lifts

FLEX SOCKET STRIP

- The socket strip can be mounted to the PROFI profile or it can be placed into the cable tray of the laboratory bench. Optionally it can be connected to the mains panel to provide extra sockets to your workstation.



FLEX Socket Strip 293.6 A S . Z 0 F				
A Sockets	S Switch	Z Cable	F Color	
3 3 Sockets Type F	0 with Switch	0 no Cable	0 white	
4 4 Sockets Type F	1 no Switch	1 1,5m Cable	1 black	
6 6 Sockets Type F		3 3m Cable	2 red	
293.600.000	Fixing Set for PROFI Profile		5 5m Cable	
293.600.010	Connection to the Mains Panel			
293.600.030	Option Socket Strip fixed in Cable Tray			
293.642.100	4x Sockets Type G (British Standard)		293.660.980	6x Sockets Type B (NEMA)

SOCKET STRIP INDUSTRY

- Socket strip made of durable plastic profile and black PE sockets, Type F, child protection.
- Black power cable H05VV-F 3G1,50mm² (length 2m) with angled plug.
- With 2poles switch.
- Dimensions: 70 x 45mm (WxH).



Socket Strip Industry			
293.204.100	4 Sockets (W: 355mm)	293.209.100	9 Sockets (W: 570mm)
293.206.100	6 Sockets (W: 440mm)	293.212.100	12 Sockets (W: 700mm)

SOCKET FLAP FOR FURNITURE INTEGRATION

- Steel frame, dimensions 248 x 151mm.
- Solid flap mechanism, snapping into end positions (depth: 56mm).
- Flap can be closed even if plugged in, due to integrated brush strip.
- Stable fastening clip for 18-30mm thick material.
- The outlet module can be installed after the frame is completely mounted.

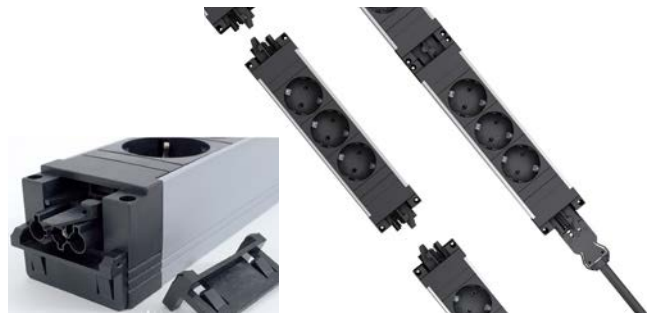


Socket Flap for Furniture Integration	
293.338.025	Socket Flap, metallic (sim. RAL9006)
293.338.026	Socket Flap, anthracite (sim. RAL7016)
293.911.001	Socket Flap, white (sim. RAL9010)
293.333.107	Module with 3 Sockets
293.912.003	Module with 2x Sockets + 1x Keystone Adapter
293.912.002	Module with 1x PE Socket + 2x Keystone Adapter



MODULAR POWER SYSTEM STEP

- The STEP power system is available in aluminium or plastic profile.
- More elements can be connected modularly.
- The elements of the STEP power system are equipped with Wieland GST18 in- and output connectors.
- PE Socket type F (type E and G on demand!).



STEP Power System with Plastic Profile

293.336.600	3fold Sockets, 220mm
293.336.601	3fold Socket, red, 220mm
293.336.604	4fold Socket, 263mm
293.336.626	5fold Socket, 305mm



STEP Power System with Aluminium Profile

293.336.039	3fold Socket, 220mm
293.336.067	3fold Socket, red, 220mm
293.906.014	4fold Socket, 263mm
293.906.003	3fold Socket with Switch, 263mm
293.906.031	3fold Socket and Switch for Sockets and Output
293.906.000	2fold Socket and Frame for 1x Keystone Module, 220mm
293.906.001	2fold Socket and Frame for 2x Keystone Module, 263mm
293.336.065	RCBO 2poles B16A, RCD 30mA, 220mm
293.336.004	Overvoltage Protection 2kV and Mains Filter 30MHz, 220mm



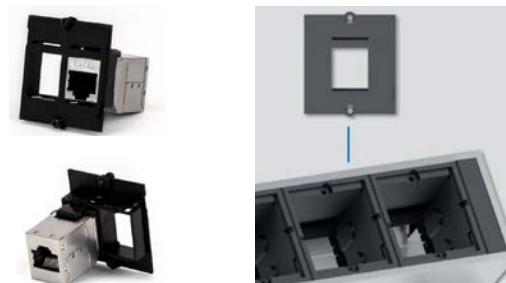
STEP Accessory

293.375.038	Connecting Cable H05VV-F3G 1,5mm², 2m
293.375.003	Power Cable H05VV-F3G 1,5mm², 3m
293.940.097	Mounting Plate, Stainless Steel, 2pcs.
293.940.096	Mounting Brackets, Stainless Steel, 2pcs.



Keystone Adapter and Modules

293.917.001	Adapter for 1x Keystone Module
293.917.000	Adapter for 2x Keystone Module
Keystone Modules:	
330.800.000	Blind Cover
330.810.100	RJ45 Coupler CAT 5e
330.810.200	RJ45 Coupler CAT 6a
330.810.400	RJ45 Socket > insulation displacement, Cat.6 shielded
330.830.200	USB2.0 A Socket > A Plug with Cable
330.830.400	USB3.0 A Socket > A Plug with Cable
330.830.500	USB3.0 C Socket > C Plug with Cable
330.840.200	HDMI Socket > HDMI Plug with Cable



See chapter 10 for more Keystone Modules



ROUND INSERT FOR CABLE ACCESS

- Plastic outer ring with rotatable spring flap.
- For inserting a cable with plug, the flap can be removed.
- Incl. cutout in bench top.



Round Insert for Cable Access	
419.061.000	Ø 80/92mm, light grey
419.061.100	Ø 80/92mm, stainless steel color
419.061.200	Ø 80/92mm, black
419.061.300	Ø 80/92mm, beige
419.061.400	Ø 80/92mm, white
419.062.000	Ø 60/72mm, light grey
419.062.100	Ø 60/72mm, stainless steel color
419.062.200	Ø 60/72mm, black
419.062.300	Ø 60/72mm, beige
419.062.400	Ø 60/72mm, white



Round Inserts for Cable Access and Technical Feature	
419.061.900	Wireless Charger USB, Ø 80/92mm, black
419.062.900	3fold USB-Hub + 2x Audio, Ø 60/72mm, black

PLASTIC VENTILATION INSERT

- Made of plastics.
- Incl. cutout in bench top.

Plastic Ventilation Insert	
419.063.900	Round, 55/50mm, white
419.064.000	Round 65/60mm, white
491.064.100	Rectangular 155 x 131mm, white



ALUMINIUM VENTILATION INSERT

- Made of anodized aluminium with 40 x 7,5mm holes.
- Incl. cutout in bench top.

Aluminium Ventilation Insert	
419.065.025	250 x 100mm
419.065.040	400 x 100mm
419.065.100	1000 x 100mm



CABLE FLAP, RECTANGULAR

- For bench top integration with silver-anodized flap.
- Black brush for cable protection in closed position.
- Incl. cutout in bench top.

Cable Flap, rectangular	
293.930.310	120 x 120mm
293.930.320	240 x 120mm
293.930.330	360 x 120mm



PROFI CONNECTOR FOR CABLE TRAY

- Plastic housing for power connection in the cable tray.
- Incl. two PE sockets, type F.
- Terminal clamp with tension relieve for the connection to the bench rack.

Connector for Cable Tray 419.081.001



PROFI CABLE CLAMP

- Stainless steel clamp for clipping into the profile slots. It guides external cable runs.
- Durable powder coated according to RAL Code.
- Dimensions: 40 x 40 x 100mm (WxDxH).

PROFI Cable Clamp 419.032.900



BRUSH CHANNEL, VERTICAL

- Durable powder coated sheet steel channel for the flexible cable run behind the PROFI extensions. The channel is closed with a brush strip, for a flexible cable access in each position.
- The easy cable arrangement with the brush channel is recommended for permanently changing cable cables.
- Depth: 70mm.



for ENERGY, closed



for SINGLE/ MULTI,
slotted



for SINGLE/MULTI,
closed

Brush Channel		401.0 HH A F 0											
HH Height								A Version		F Extension			
03	300mm	05	500mm	07	700mm	09	900mm	11	1100mm	5	closed	0	SINGLE/MULTI
04	400mm	06	600mm	08	800mm	10	1000mm	12	1200mm	6	slotted	1	ENERGY

PROFI PC SUPPORT


- Suspended PC support made of sheet steel.
- Stepless adjustable width.
- The PC support can be installed at each PROFI bench leg in variable height.
- Durable, light grey powder coating.
- Dimensions: 440 x 230mm (WxH).

PROFI PC Support		491.08	F	BB 0
F	Bench Legs	BB	Width	
0	SINGLE / MULTI / ENERGY	10	160 - 210mm	
1	C-Lift	15	130 - 180mm	
		20	90 - 130mm	



PROFI KEYBOARD EXTENSION

- For installation under the bench top.
- Keyboard height: max. 75mm (adjustable in steps).
- Light grey 19mm thick shelfboard, all sides with 2mm PP plastic edge.
- Metallic telescopic rails with endposition lock (telescopic length: 279mm).
- Dimensions: 680 x 400 x 100mm (WxDxH).

PROFI Keyboard Extension		
491.068.501	Standard	
491.068.551	ESD	



PROFI KEYBOARD EXTENSION WITH MOUSE PAD

- For installation under the bench top, suitable for 3 heights (93, 104, 116mm).
- Width: 600mm (max. keyboard width 555mm).
- Position lock and extendable mouse pad.
- Compartment for writing utensils.

PROFI Keyboard Extension with Mouse Pad	
491.060.000	grey
491.060.005	black



PROFI HEIGHT ADAPTERS

- Height adapters 50mm for increasing the bench height later on.
- Durable powder coated according to RAL Code.
- Incl. assembly set.

PROFI Height Adapters, Set

401.200.900



PROFI LEG SHELL

- Eight half shells made of aluminium.
- Durable powder coated according to RAL Code.
- Incl. nuts and screws for the height variable fixation to the bench legs.

PROFI Leg Shell, Set

401.300.900

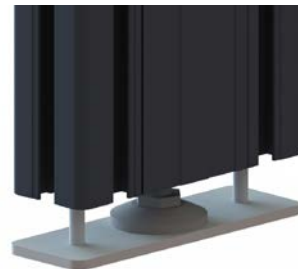


HEAVY DUTY LEVELLERS FOR PROFI BENCH

- Stainless steel plate with two bolts for the fixation to the bench leg.
- For the reduction of punctual loads especially for sensitive floors.

Heavy Duty Levellers

419.015.000



VIBRATION DAMPED LEVELLER FOR PROFI BENCH

- For metallic levellers with rubber damper.
- Ideal for measurement benches with ideal scales and microscopes.

Vibration Damped Leveller

419.017.000



PROFI BENCH CONNECTOR, SET

- For the connection of two PROFI benches.
- Two steel connectors.
- Incl. assembly set.



row positioning



back-to-back positioning



head-to-side positioning (head bench)

PROFI Bench Connector			
419.021.000	Row Positioning (stainless steel)	419.022.000	Back-to-Back Positioning (powder coated)
419.021.900	Row Positioning (powder coated)	419.023.000	Head-to-Side (powder coated)

FLOOR FIXATION FOR PROFI BENCH

- 2pcs. sheet steel brackets to anchor PROFI benches to the floor.
- Durable, light grey powder coating.
- Incl. assembly material.

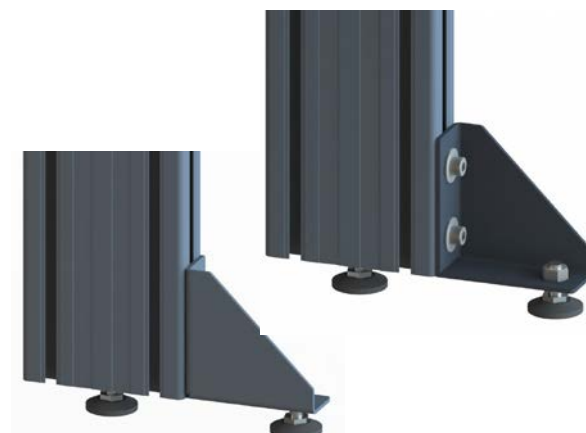


Floor Fixation, Pair	419.011.000
----------------------	-------------

PROFI STABILIZER, PAIR

The PROFI Stabilizer prevents benches with punctual center of gravity from toppling over, especially if they are not placed at the wall or head-to-head set-ups.

- 2x cantilever with leveling screw.
- Edge length: 100mm
- Durable powder coated according to RAL Code.
- Incl. assembly set.



PROFI Stabilizer, Pair	401.350.900
------------------------	-------------

PROFI **BOTTLE HOLDER**

- Two-part holder made of aluminium for a max. bottle diameter of 94mm.
- Durable light grey powder coating.
- For the fixation to the PROFI or FLEX profile in variable height.
- Dimensions: 117 x 120mm (DxH).

PROFI Bottle Holder	
468.200.102	1x Bottle, Width 114mm
468.200.202	2x Bottle, Width 210mm



PROFI **SLOT COVER**

- Suitable for all slots of the PROFI profiles.
- Material: Hard-PVC.
- Width: 10mm (max. length: 2,5m).

PROFI Slot Cover	
419.001.500	grey
419.001.100	black



PROFI **CABLE DUCT**

- For cable runs outside the PROFI profile, with detachable cover and flexible cable outlet.
- Incl. assembly set.



Cable Duct 15 x 15mm



Cable Duct 40 x 40mm



Cable Duct 110 x 60mm



Sheet steel cover 125 x 80mm

PROFI Cable Duct			
419.030.015	15 x 15mm (WxH) Plastics, light grey	419.033.900	100 x 60mm (WxH) galvanized steel, powder coated
419.030.040	40 x 40mm (WxH) Plastics, light grey	419.034.900	125 x 80mm (WxH) Sheet steel cover, powder coated for the assembly to the PROFI profiles
419.030.110	110 x 60mm (WxH) Plastics, light grey		
419.031.000	40 x 40mm (WxH) Aluminium, anodized		
419.031.900	40 x 40mm (WxH) Aluminium, powder coated		



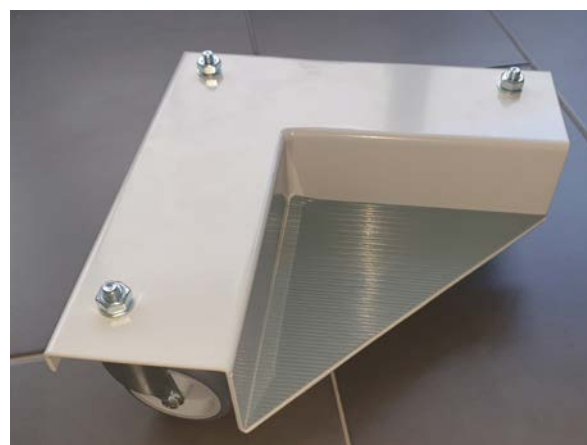
Rear side with stabilizer for free standing PROFI benches (not wall standing or back-to-back positioning). Recommended for benches with heavy bench racks and center of gravity concentrated to the rear side.

SET OF CORNER MOVERS

Corner movers enable to relocate heavy loads, such as laboratory benches on even floors.

- 4 pieces of corner movers, each with 3x swivel casters (75mm diameter).
- Made of 300x300mm triangled sheet steel tray, durable light grey powder coated.
- Rubbered slip-protection.
- Load capacity per set: 450kg (evenly loaded).

During transportation the load needs to be safeguarded!



Corner Movers

960.010.007



CHAPTER 3: PROFI BENCH RACKS

- | | | | |
|------------|----------------------------------|------------|---|
| 060 | Extensions MULTI and SINGLE | 082 | Shelf Rack with Sliding Doors |
| 061 | Extensions ENERGY and ENERGY 45° | 083 | Shelf Rack with Roller Shutter |
| 062 | Cross Profile with TFT Support | 084 | Shelf Rack with Tilted Front |
| 064 | Support and Heavy Duty Support | 085 | Separation Panels |
| 065 | Shelf | 088 | LED Workstation Lamp ST (Standard) |
| 066 | Swivel - and Function Shelf | 089 | LED Workstation Lamp PR (Premium) |
| 067 | Aluminium Rail for PROFI Shelf | 090 | LED Workstation Lamp with Gooseneck |
| 068 | Sheet Steel Swivel Shelf in ESD | 091 | LED Workstation Lamp Accessory |
| 069 | Multimedia Support | 092 | Universal LED Flatlight |
| 071 | Compact Terminal | 094 | Training System Frame and Sliding Mechanics |
| 072 | KK Modules | 096 | Installation Wall for Training Boxes |
| 075 | Brush Channel | 100 | Overhead Frame with Overhead Lamp |
| 076 | Cable Tray for Shelf | 104 | Perforated Backplane |
| 078 | Cable Clearance Drawer | 105 | Bin Holder and Backplane for Socket Strip |
| 079 | Corner Support and - Shelf | 106 | PROFI Swivel Arm |
| 080 | Cable Tray for Corner Shelf | 108 | Document Protector, Bottle Holder, Switching Module |
| 081 | Shelf Rack | 109 | Cable Comb and Cord Holder |

PROFI EXTENSIONS SINGLE / MULTI, PAIR

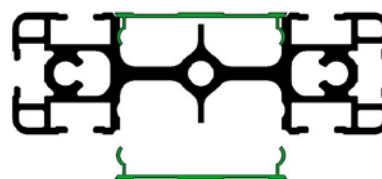
- Aluminium extrusions for bench configurations with shelves or suspended instrument racks.
- Dimensions: 125 x 40mm.
- Modular extendable.
- Durable powder coated according to RAL Code.

MULTI Extensions:

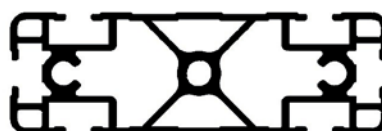
- Aluminium profiles with clip profile covers to close the cable channels.
- Ideal for the height variable cable access for one or more cables or hoses.
- Invisible and very stable connection between bench legs and extensions. Completely covered by the aluminium profile covers.

SINGLE Extensions:

- Closed profiles for shelves and racks with none or minor cable runs.
- Invisible and very stable connection between bench legs and extensions.



MULTI Extensions



SINGLE Extensions

PROFI Extensions SINGLE / MULTI		401.0	HH.9	A	P
HH Height		A Connection		P Extensions	
02 H: 200mm	10 H: 1000mm	0 for PROFI Bench		0 MULTI	
03 H: 300mm	11 H: 1100mm	1 for EASY Bench		2 SINGLE	
04 H: 400mm	12 H: 1200mm				
05 H: 500mm	13 H: 1300mm				
06 H: 600mm	14 H: 1400mm				
07 H: 700mm	15 H: 1500mm				
08 H: 800mm	16 H: 1600mm				
09 H: 900mm	18 H: 1800mm				

PROFI ADAPTION TO OTHER BENCHES



Bench prepared for PROFI extensions and cable management

EASY Bench prepared for PROFI Extensions

401.100.000	prepared for SINGLE / MULTI Extensions
401.110.000	prepared for ENERGY Extensions



Two aluminium profiles 40x40mm with caps for the acceptance of the extensions; length 350mm

PROFI Adapter for Extensions, Pair

401.100.900	for SINGLE / MULTI Extensions
-------------	-------------------------------

PROFI EXTENSIONS ENERGY, PAIR

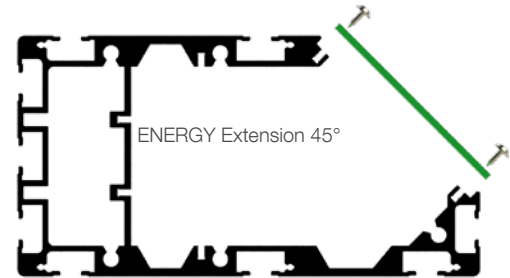
- Two vertical aluminium extrusions prepared for the acceptance of modules in KP raster, suitable for the installation on PROFI - and EASY benches.
- With surrounding slots for the assembly of PROFI shelves and PROFI instrument racks.
- Durable powder coated according to RAL Code.

ENERGY Extensions, standard:

- Dimensions: 102 x 125mm (WxD).

ENERGY Extensions 45°:

- Dimensions: 102 x 195/130mm (WxD).
- One extra slot at the front side.



B Fixation



5 EASY (Work-) Bench



6 PROFI Bench



7 PROFI Bench with Power Legs

PROFI Extensions ENERGY

320. **HH** **B** **9** **A** **0**

HH Height

02 2x 4KP H: 200mm	07 2x 16KP H: 700mm	12 2x 29KP H: 1200mm
03 2x 6KP H: 300mm	08 2x 19KP H: 800mm	13 2x 31KP H: 1300mm
04 2x 9KP H: 400mm	09 2x 21KP H: 900mm	14 2x 34KP H: 1400mm
05 2x 11KP H: 500mm	10 2x 24KP H: 1000mm	15 2x 36KP H: 1500mm
06 2x 14KP H: 600mm	11 2x 26KP H: 1100mm	

B Fixation

5 EASY (Work -) Bench
6 PROFI Bench
7 PROFI with Power Legs

A Version

0 Standard
5 45°

320.000.900 Fixing Bracket for one sided installation of ENERGY Extension



PROFI CROSS PROFILE

- The PROFI cross profile is horizontally installed between the rear sided extension and is for the acceptance of TFT supports and other accessory.
- Made of the aluminium profile SINGLE and for installation in variable height.
- Durable powder coated according to RAL Code.

PROFI Cross Profile 419.0 BB.9 F 0

BB Bench Width

59	500mm	72	1295mm
69	603mm	73	1500mm
70	800mm	78	1600mm
77	900mm	74	1800mm
71	1000mm	75	2000mm
79	1200mm	76	2303mm

F Extensions

0	SINGLE/MULTI (-80mm)
5	ENERGY (-204mm)



PROFI TFT SUPPORT

- Horizontally movable sheet steel support with sliding mechanism, durable powder coated in light grey.
- VESA adapter (100x100mm and 75x75mm) for the acceptance of a TFT monitor and extra perforation for swivel heads.

PROFI TFT Support, no Swivel Head

491.053.050	front side assembly to the PROFI Cross Profile
491.053.150	rear side assembly to the ENERGY Profile (Width: 150mm / Height: 360mm)
491.053.250	assembly below ENERGY Profile or Aluboard (Width: 150mm / Height: 360mm)
491.053.550	assembly to Multimedia Support

TFT Swivel Head for PROFIT TFT Support

491.052.100	PLUS tilt -, swivel - and rotatable; silver (130mm reach; load capacity: 15kg)
491.056.100	LC tilt -, swivel - and rotating 3°; black (65mm reach; load capacity: 20kg)
491.057.100	TSS with spherical head and quick fastener (105mm reach; load capacity: 15kg)



PROFI KEYBOARD TRAY

- Ergonomically tilted tray with stop edge made of durable powder coated sheet steel.
- Horizontally movable due to sliding mechanism.
- Dimensions: 470 x 250mm.

PROFI Keyboard Tray

320.009.600	for ENERGY Profile
940.123.400	for Cross Profile



USE YOUR SPACE IN THE MOST EFFICIENT WAY

The PROFI system holds a variety of shelves which are distinguished in material, load capacity and mechanism. In following pages you will learn what is the ideal type for your application.

If your application is not covered we will help you find an individual solution!



Swivel Shelf with
integrated Sockets

Shelf with Multi-
media Support

Functional Shelf

PROFI SUPPORT

- Sheet steel stiffening for all shelves which are not supported by an instrument rack.
- Durable, light grey powder coating.
- Incl. assembly set.
- Dimensions: 140 x 30mm (DxH).



PROFI Suport		424.0 BB . 0 F 0							
BB Bench Width		F Extensions							
05	500mm	09	900mm	13	1295mm	18	1800mm	0	for SINGLE / MULTI
06	603mm	10	1000mm	15	1500mm	20	2000mm	1	for ENERGY
08	800mm	12	1200mm	16	1600mm	23	2303mm		

PROFI HEAVY DUTY SUPPORT

- Heavy duty support for heavily loaded shelves and wooden bench racks. Surrounding frame with tubular steel, sides with sleeves for the solid connection to the extensions.
- Durable, light grey powder coating.
- Incl. assembly set.
- Dimensions: 260 x 40mm (DxH).



PROFI Heavy Duty Support 424.0 BB . 5 F 0									
BB Bench Width					F Extensions				
05	500mm	09	900mm	13	1295mm	18	1800mm	0	for SINGLE / MULTI
06	603mm	10	1000mm	15	1500mm	20	2000mm	1	for ENERGY
08	800mm	12	1200mm	16	1600mm	23	2303mm		

PROFI ANGLE STIFFENER

- Universal angle made of sheet steel with bores for the fixation to the PROFI extensions.
- Durable, light grey powder coating.
- Incl. assembly set.
- Dimensions: 123 x 123 x 30mm.



PROFI Angle Stiffener (pcs)	424.029.000
-----------------------------	-------------

PROFI SHELF

- Light grey, 30mm thick, melamine resin covered chipboard, sides with 3mm PP plastic edge.
- Lower side with thread insert for the assembly to a stiffener.
- The stiffener can be an instrument rack, heavy duty support or a standard support.

ESD Version:



- Chipboard with conductive surface and volume, (according to DIN EN 61340), sides with antistatic 3mm PP plastic edge.
- Conductive connected to the stiffener.

F Type



SINGLE / MULTI Extensions



ENERGY Extensions

PROFI Shelf 328. BB T F B A

BB Width

05	500mm
06	603mm
08	800mm
09	900mm
10	1000mm
12	1200mm
13	1295mm
15	1500mm
16	1600mm
18	1800mm
20	2000mm
23	2303mm

T Depth

3	300mm
4	400mm
5	500mm

F Extensions

0	Cutout for SINGLE / MULTI Extensions
1	between SINGLE / MULTI Extensions
3	Cutout for ENERGY Extensions 45°
4	Cutout for ENERGY Extensions
5	between ENERGY Extensions
6	no Cutout

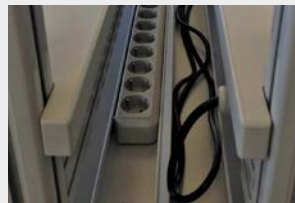


424.029.500: Optional Milled Stop Edge


- per meter, 6mm high

B Fixation

0	with Thread Inserts (standard support or instrument rack)
1	no Thread Inserts (heavy duty support, face-down multimedia support)
2	Face-Up Multimedia Support (Usable depth -85mm)



A Version

0	Standard
5	ESD 

424.028.500: Option Shelf Moved to the Front

- 40mm moved to the front to enable cable guidance if placed to the wall or back-to-back



PROFI SWIVEL SHELF




- Light grey, 30mm thick melamine resin covered chip board, sides with 3mm PP plastic edge.
- Lower side with thread inserts for the assembly to the swivel support.
- Front - and rear side of the shelf with integrated stop edge (height: 6mm) preventing instruments from dropping down in tilted position.
- Swivel shelf made of steel sheet with durable light grey powder coating.
- Stepless adjustable height and tilt (0-37°).
- Stepless adjustable depth (+/- 25mm).
- Dimensions: 140 x 30mm (DxH).

ESD Version:

- Chipboard with conductive surface and volume, (according to DIN EN 61340), sides with antistatic 3mm PP plastic edge.
- Incl. assembly set for a continuous conductive connection between shelf, swivel support and extensions.

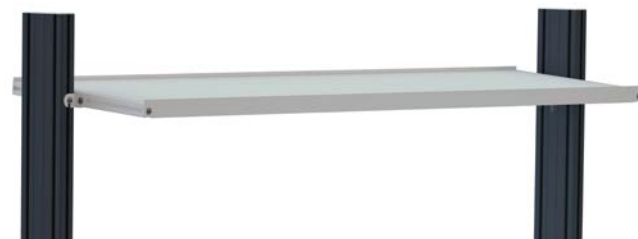


PROFI Swivel Shelf 329 . BB T . F 0 A											
BB Bench Width						T Depth	F Extensions			A Version	
05	500mm	10	1000mm	16	1600mm	3 300mm	5 for SINGLE/ MULTI (-80mm)	0 Standard		5 ESD	
06	603mm	12	1200mm	18	1800mm	4 400mm					
08	800mm	13	1295mm	20	2000mm	5 500mm	0 for ENERGY (-204mm)				
09	900mm	15	1500mm	23	2303mm						

PROFI FUNCTION SHELF




- Light grey, 30mm thick melamine resin covered chip board, sides with 3mm PP plastic edge. The ESD chipboard with conductive surface and volume (according to DIN EN 61340).
- Front - and rear side with sheet steel stop edge, durable light grey powder coated (height: 40mm).
- Side parts with 30x30mm aluminium profile for the flexible acceptance accessory.
- Stepless adjustable height, tilt and depth.
- Incl. assembly set.



adjustable stop edge for instruments



stop edge usable for magnets

PROFI Function Shelf 427. BB T . F 0 A											
BB Bench Width						T Depth	F Extensions			A Version	
05	500mm	10	1000mm	16	1600mm	3 300mm	1 for SINGLE / MULTI (-80mm)	0 Standard		5 ESD	
06	603mm	12	1200mm	18	1800mm	4 400mm					
08	800mm	13	1295mm	20	2000mm	5 500mm	5 for ENERGY (-204mm)				
09	900mm	15	1500mm	23	2303mm	6 600mm					

427. **BB** 0.000: Option: Adjustable Stop Edge

OPTION **ALUMINIUM RAIL** FOR PROFI SHELF

- Matt anodized aluminium profile 30 x 30mm for the assembly to the PROFI shelves; with slots for the acceptance of accessories.
- With fixing holes for the assembly to shelf fronts.



Option Aluminium Rail for PROFI Shelf 427. BB 9. F K 0									
BB Bench Width					F Color		K Extensions		
05	500mm	10	1000mm	16	1600mm	0	anodized	0	no Cutout (-0mm)
06	603mm	12	1200mm	18	1800mm	9	powder coated	2	between SINGLE / MULTI (-80mm)
08	800mm	13	1295mm	20	2000mm			4	between ENERGY (-204mm)
09	900mm	15	1500mm	23	2303mm				

SEPERATOR FOR SHELVES WITH ALUMINIUM RAIL

- Adjustable sheet steel seperators e.g. for carton storage in packing benches.
- Durable, light grey powder coating.
- Height: 400mm.



Depth		Depth	
430mm	427.000.040	630mm	427.000.060
530mm	427.000.050		

OPTION **CUTOUT** FOR COMPACT TERMINAL

- Rear sided cutout for shelves or bench tops to hold the modular equipped compact terminal.
- Incl. plastic covered slot for hidden cable run in shelves.



Cutout for Compact Terminal	329.000.000
-----------------------------	-------------



PROFI ESD SWIVEL SHELF METAL



- Swivel shelf with support made of sheet steel with durable conductive powder coating in light grey.
- Front side with 15mm stop edge, rear side with 30mm stop edge.
- Stepless adjustable in height, tilt (0-37°) and depth (+/- 25mm).



PROFI ESD Swivel Shelf Metal 428 . **BB** **T** .00 **F**

BB Bench Width

05	500mm	10	1000mm	16	1600mm
06	603mm	12	1200mm	18	1800mm
08	800mm	13	1295mm	20	2000mm
09	900mm	15	1500mm	23	2303mm

T Depth

1	300mm
0	400mm

F Extensions

1	for SINGLE-/ MULTI (- 80mm)
5	for ENERGY (-204mm)



ALL CONNECTORS IN ERGONOMIC REACH

The **Multimedia Support** with rear sided modular channel can be quipped with sockets, LAN, USB, pressured air connector, ... So it provides all necessary connectors for shelf-positioned instruments. It is a perfect heavy duty stiffener for heavy duty shelves and offers plenty of room to hide all cable runs.

Your advantages:

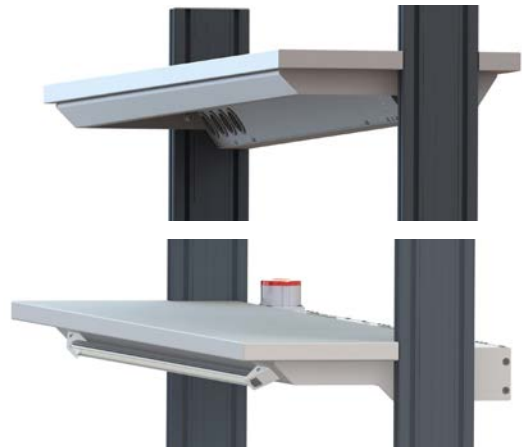
- rear side with modular channel
- heavy duty support including hidden cable runs
- tilted front prepared for the acceptance of the LED workstation lamp



PROFI MULTIMEDIA KONSOLE

Heavy duty support for shelves or wooden racks with modular equipable channel and completely hidden cable runs, provides power and jacks directly where it is required.

- Rear sided compact terminal prepared for the acceptance of KK modules.
- Surrounding heavy duty support with sufficient space for hidden cable runs directly into the extensions.
- Ergonomically tilted front prepared for the acceptance of the LED workstation lamp.
- Durable, conductive powder coating in light grey.
- Dimensions: 390 x 84/40mm (WxH).



Multimedia Support (face-up equipment)



Multimedia Support (face-down equipment)

PROFI Multimedia Support 424.0 **BB** **A** **F** 0

BB Width & Equipment (SINGLE / ENERGY)

05	500mm (39cm / 26cm)	13	1295mm (118cm / 105cm)
06	603mm (49cm / 36cm)	15	1500mm (139cm / 126cm)
08	800mm (69cm / 56cm)	16	1600mm (149cm / 136cm)
09	900mm (79cm / 66cm)	18	1800mm (169cm / 156cm)
10	1000mm (89cm / 76cm)	20	2000mm (189cm / 176cm)
12	1200mm (109cm / 96cm)	23	2303mm (219cm / 206cm)

A Version

8	straight (modules face-up)
9	tilted (modules face-down)

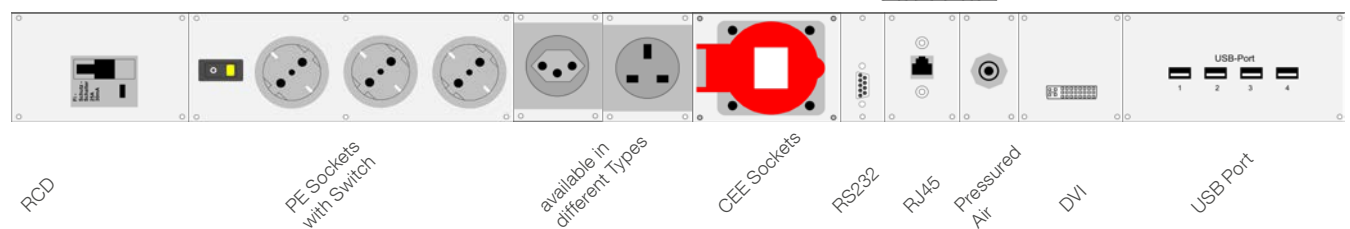
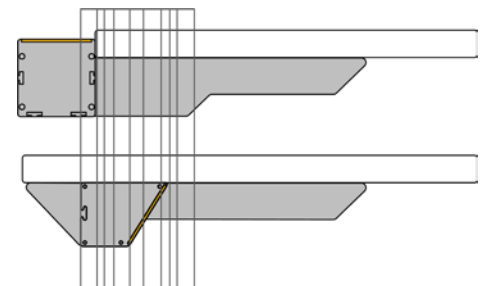
F Extensions

0	for SINGLE / MULTI
1	for ENERGY

Modular Equipment for Multimedia Support:

The rear side of the multimedia support is prepared for the KK modules, so please choose from page 072 - 074. Empty spaces are covered with blank panels.

Example:



COMPACT TERMINAL

- Aluminium channel with durable light grey powder coating.
- Front prepared for the flexible acceptance of modules in KK raster.

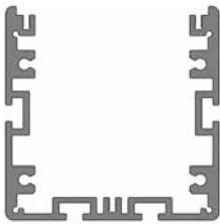
Straight Version:

- Applicable for multimedia support, in cable tray or between extensions, etc.

Tilted Version:

- Applicable for bench top assembly, multimedia support or shelf-integration, etc.

straight



Dimensions: 85 x 85mm

tilted



Dimensions: 70 x 95/52mm

M Installation



1 Bench Top Assembly



2 below Shelf



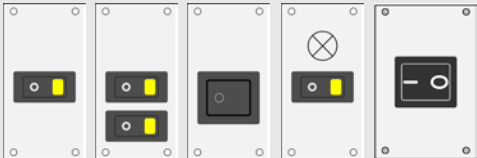
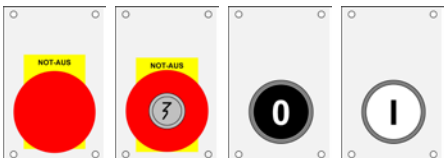


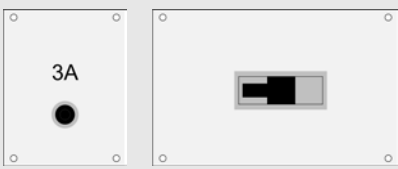
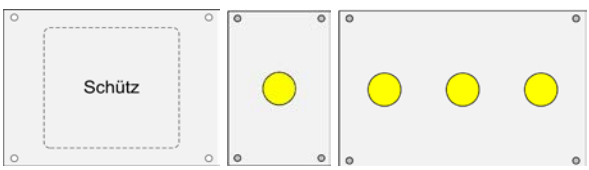
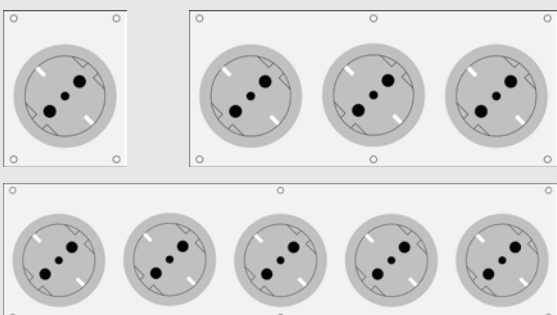
3 with Mounting Brackets
4 between Extensions

Compact Terminal				29	A	BBB	M	00
A Version		BBB Width		M Montage				
7	Tilted	min. 10cm, max. 230cm		1	Bench Top Assembly (equippable with - 1cm)			
8	Straight			2	Below Shelf (equippable with - 1cm)			
297.000.000 : customized cable access				3	Sides with Mounting Brackets (equippable with - 1cm)			
				4	Between Extensions (width = equippable width)			

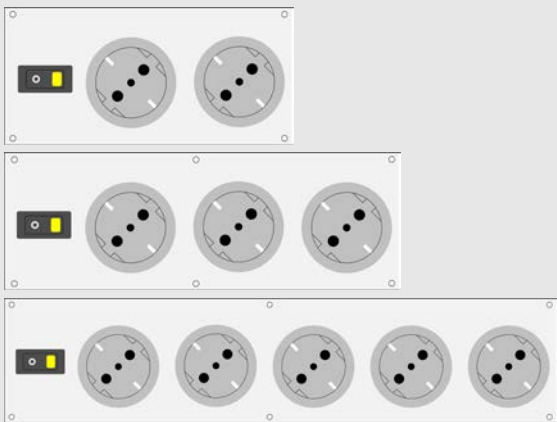
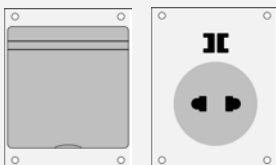
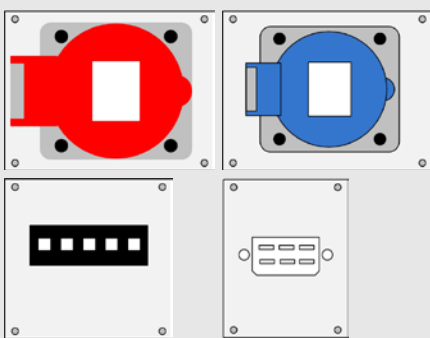
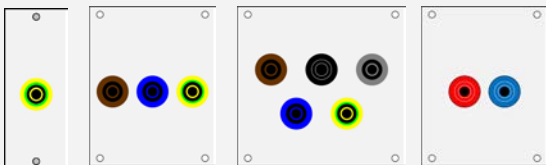
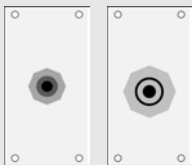



KK MODULES

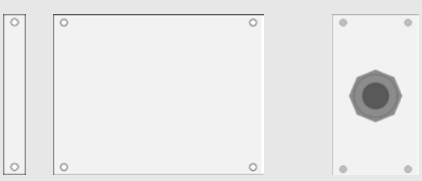




- The modules for the compact terminal are completely wired and installed and 100% tested on function and safety.
- Front panels are made of durable 3mm plastics in grey.
- Module height: 70mm.
- If desired all front panels can be made in aluminium with durable light grey powder coating and earth connection of each front panel.
- Emergency Stop Function consists of:
200.02x.101 + 200.052.xx1 + 200.040.101

Art-No.	Module	Width	Picture
200.010.101 200.011.101 200.012.101 200.010.201 200.013.101	Illuminated 2poles Switch 16A <ul style="list-style-type: none"> 1fold 2fold 1fold, no illumination Switch with Lamp Symbol DC Switch 1fold 24V/10A 	4cm 4cm 4cm 4cm 5cm	
200.020.101 200.021.101 200.025.101 200.026.101	<ul style="list-style-type: none"> Emergency Off / Rotation Release Emergency Off / Key Release Off Button (NCC) On Button (NOC) 	5cm	
200.052.XX1	Automatic Circuit Breaker with Undervoltage Release for Emergency Off Circuit and Voltage Control Lamp <ul style="list-style-type: none"> XX = Tripping Current Note: 1poles circuit breaker is only applicable for reverse protected plugs!	15cm	
200.040.101 200.041.101 200.041.701 200.041.401	<ul style="list-style-type: none"> RCD 2poles 25A / 30mA RCBO 16A/10mA RCBO 13A/10mA RCBO 10A/10mA (over - and residual current protection) 	14cm	
200.050.XX1 200.051.XX1	<ul style="list-style-type: none"> Thermomagnetic fuse XX = Tripping Current (1A - 16A) Automatic Circuit Breaker B-Characteristics XX = Tripping Current 	6cm 14cm	
200.060.101 200.061.101 200.063.101	<ul style="list-style-type: none"> Miniature Contactor 1x Phase Control Lamp (L) 3x Phase Control Lamp (L1, L2, L3) 	10cm 5cm 12cm	
200.101.101 200.102.101 200.103.101 200.104.101 200.105.101	<ul style="list-style-type: none"> 1fold PE Socket Type F 2fold PE Socket Type F 3fold PE Socket Type F 4fold PE Socket Type F 5fold PE Socket Type F 	6cm 12cm 18cm 24cm 30cm	

KK MODULES

Art-No.	Module	Width	Picture
200.111.101 200.112.101 200.113.101 200.114.101 200.115.101	Modules with Illuminated 2poles Switch: <ul style="list-style-type: none"> 1fold PE Socket Type F 2fold PE Socket Type F 3fold PE Socket Type F 4fold PE Socket Type F 5fold PE Socket Type F International types on page 074 (more on demand!)	10cm 16cm 22cm 28cm 34cm	
XXX.XXX.201 200.150.101	<ul style="list-style-type: none"> Optionally with Flap for PE Sockets Sockets for Floating Voltage and External Isolating Transformer 	6cm	
200.205.101 200.203.101 200.205.201 200.205.301	<ul style="list-style-type: none"> CEE Socket 5poles 16A red CEE Socket 3poles 16A blue Winsta Socket 5poles 16A FSH Socket 5poles 16A Other colors and types on demand!	10cm 10cm 8cm 6cm	
200.301.101 200.303.101 200.305.101 200.302.101 200.302.201	4mm Safety Jacks <ul style="list-style-type: none"> PE Jack 3poles (L, N, PE) 5poles (L1, L2, L3, N, PE) Output for External DC Sources (+/-) Output for External AC Sources (L/N) 	2cm 6cm 8cm 6cm 6cm	
200.401.101 200.401.401 200.401.201 200.401.301	Quick Connectors for Pressured Air <ul style="list-style-type: none"> for Hose 6/4 for Hose 8/6 NW 5 NW 7,2 	4cm	
200.551.101 330.810.500 330.810.400 330.810.310 330.830.200 330.830.400 330.830.500 330.840.200	Module with Keystone Frame Suitable Keystone: <ul style="list-style-type: none"> RJ45 Coupling CAT 6 (angled) RJ45 - Cut / Grip Technology, shielded CAT 6 RJ45 - Cut / Grip Technology, shielded CAT 6 (F=0: black; 1: red; 2: green; 3: yellow; 4: blue) USB2.0 A-Socket > A-Plug with Cable USB3.0 A-Socket > A-Plug with Cable USB3.0 C-Socket > C-Plug with Cable HDMI Socket > HDMI Plug with Cable 	4KK	

KK MODULES

Art-No.	Module	Width	Picture
200.524.101 200.525.101	<ul style="list-style-type: none"> USB-Port 4fold 2.0 USB-Port 4fold 3.0 Note: USB-Ports with external Power Unit	15cm 15cm	
200.541.101 200.542.101 200.543.101	<ul style="list-style-type: none"> Sub-D Socket 15poles VGA Sub-D Socket 9poles RS232 DVI-I-Socket 	3cm 3cm 7cm	
XXX.XXX.401 XXX.XXX.501 XXX.XXX.601 XXX.XXX.701 XXX.XXX.801 XXX.XXX.901	International Types (choose version from type F modules) <ul style="list-style-type: none"> Type J - Swiss (10A) Type E - Franco/ Belgian (16A) Type L - Italian (10A) Type G - British (13A) Type B - NEMA 5-15R 125V / 15A Type B - NEMA 6-20R 250V / 20A Other types on demand!	6cm	
200.000.XX1	<ul style="list-style-type: none"> Blank Panle XX = width	cm	
200.800.100 200.800.101 200.810.101	<ul style="list-style-type: none"> Cable Gland M16 Cable Gland M20 Cable Gland M25 	4cm 4cm 4cm	
200.835.000	<ul style="list-style-type: none"> 5m Power Cord (3x 1,5mm²) with open end 	1cm	
200.835.100	<ul style="list-style-type: none"> 3m Power Cord (3x 1,5mm²) with angled Plug Type F 	1cm	
200.855.000	<ul style="list-style-type: none"> 5m Coper Cord (5x 2,5mm²) with open End 	2cm	
200.855.100	<ul style="list-style-type: none"> 5m Power Cord (5x 2,5mm²) with CEE Plug 16A red 5m Power Cord (3x 1,5mm²) with CEE Plug 16A blue 	2cm	
200.XXX.XX5	<ul style="list-style-type: none"> Front Panels made in aluminium, durable powder coated and earthed 		
200.XXX.XX6	<ul style="list-style-type: none"> IT Socket (red frame), with separate input terminal for integration into the IT networks (not connected to circuit breaker) 		

BRUSH CHANNEL

- Sheet steel channel with durable powder coating according to RAL Code, closed with brush for a flexible cable outlet.
- The brush channels are installed in parallel to the extensions and offer an easy cable management for permanently changing cable runs with flexible cable access.
- Depth: 70mm.



for ENERGY Extensions,
closed



for SINGLE/MULTI,
slotted



for SINGLE/MULTI,
closed

Brush Channel, vertical

401.0 **HH** **A** **F** **0** **T**

HH Height

03 300mm	07 700mm	11 1100mm
04 400mm	08 800mm	12 1200mm
05 500mm	09 900mm	
06 600mm	10 1000mm	

A Version

5 closed
6 slotted

F Extension

0 SINGLE/MULTI (W: 40mm)
1 ENERGY (W: 102mm)

T Cutout

0 no Bench Top Cutout
1 with Bench Top Cutout

Brush Channel, horizontal

401.0 **BB** **A** **M** **0**

BB Width

05 500mm	09 900mm	13 1295mm	18 1800mm
06 603mm	10 1000mm	15 1500mm	20 2000mm
08 800mm	12 1200mm	16 1600mm	23 2303mm

A Version

5 closed
6 slotted

M Installation

5 full Bench Width (-0mm)
6 between SINGLE/MULTI (-80mm)
7 between ENERGY (-204mm)

401.090.000 Set of brackets for the fixation of brush channels to the inner side of the extensions



CABLE TRAY FOR PROFI SHELF

- Cable tray with openings for cable access.
- Made of sheet steel, durable powder coated in light grey.
- Incl. assembly set.

Version for assembly behind the Extensions:

- Dimensions: 70 x 40mm (DxH).
- Width = bench width.

Version for assembly between Extensions:

- Dimensions: 102 x 40mm (DxH).
- Width reduced by 80mm or 204mm.



Cable Tray for PROFI Shelves								426. BB 9.00 A	
BB Bench Width								A Extensions	
05	500mm	09	900mm	13	1295mm	18	1800mm	2	behind Extensions
06	603mm	10	1000mm	15	1500mm	20	2000mm	3	between SINGLE / MULTI
08	800mm	12	1200mm	16	1600mm	23	2303mm	4	between ENERGY

SOCKET STRIP FOR SHELF CABLE TRAY

- Socket strip in durable plastic housing with 45° turned PE sockets, type F (other types on demand!).
- Power Cable H05VV-F3G 1,5mm².

Steckdosenleiste für Ablagenkabelwanne	
293.630.100	PE Socket 3fold (185x56x41), with 1,5m cable
293.640.100	PE Socket 4fold (288 x56x41), with 1,5m cable
293.660.100	PE Socket 6fold (340 x56x41), with 1,5m cable
293.210.200	PE Socket 10fold (530x70x60), switch and 3m cable
293.600.010	Option Integrated in Bench Wiring
458.000.100	Cable Gland for ENERGY Extensions



CABLE COMB FOR SHELF OR RACK

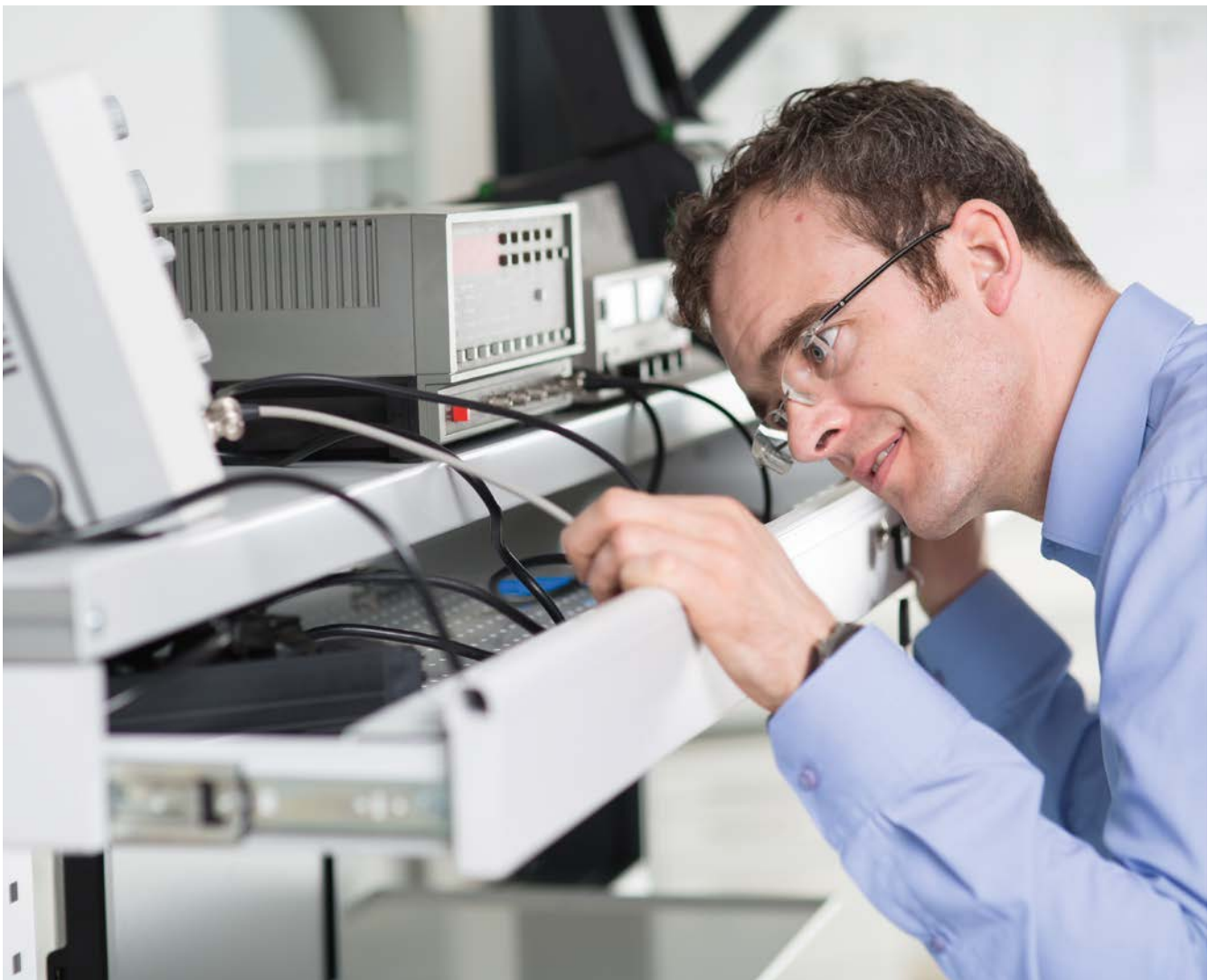
- The cable comb is installed under the shelf or instrument rack and arranges oversized laboratory cords.
- Applicable as document holder in combination with magnets.
- Made of sheet steel, durable powder coated.
- Dimensions: 60 x 35mm (DxH).



Cable Comb for Shelf or Rack								424. BB 9. 0 K 0	
BB Bench Width								K Extensions	
05	500mm	09	900mm	13	1295mm	18	1800mm	0	for Shelves with Cutout
06	603mm	10	1000mm	15	1500mm	20	2000mm	2	between SINGLE / MULTI
08	800mm	12	1200mm	16	1600mm	23	2303mm	4	between ENERGY

PLENTY OF ROOM FOR YOUR MEASURING LEADS

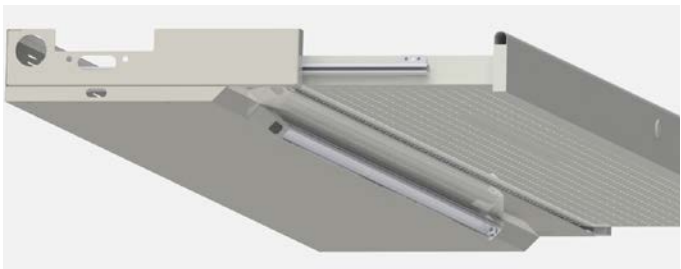
The racks and shelves in an electric laboratory can be used for plenty of applications and instruments. While in the past it was good enough to connect your test items to the in- or output of an instrument or a source, you have nowadays a bigger variety of highly specified laboratory devices most of which also require extra data cables. The result is a tangled cable mess, that uses lots of precious workspace. In order to keep your bench tops clear our PROFI workstation can be equipped with a cable clearance comb or a cable clearance drawer, which eat up unrequired cable length and keep your bench top clear for more important tasks.



CABLE CLEARANCE DRAWER

The drawer will keep your bench top clear of unrequired cables and cable length.

- For the modular installation under shelves and instrument racks with a min. depth of 400mm.
- Sheet steel drawer, durable powder coated in light grey, with fully extensional telescopic rails and locking in end-position (extension lenght: approx. 240mm).
- Drawer front made of 19mm melamine resin covered chipboard in light grey, rubber lip for cable outlet, metal handle and key-lock.
- Lower and rear side with sheet steel cover, durable light grey powder coated and ergonomic bevelling for an optional acceptance of the LED workstation lamp.
- Depth: 390mm; height: 85/105mm (front/rear).



Cable Clearance Drawer		420. BB 0.0 K 5	
BB Width		K Extension	
08	800mm	13	1295mm
09	900mm	15	1500mm
10	1000mm	16	1600mm
12	1200mm	18	1800mm
20	2000mm	0	for SINGLE / MULTI
23	2303mm	1	for ENERGY



PROFI CORNER SUPPORT

- Sheet steel support for corner shelves without instrument rack.
- Durable, light grey powder coating.
- Incl. assembly set.
- Dimensions: 140 x 30mm (DxH).



PROFI Corner Support 424.05 **K** **V** 00

K Edge Length

0	1213 x 1213mm	5	935 x 935mm	4	1000 x 1200mm
1	835 x 835mm	2	1035 x 1035mm	3	1200 x 1000mm

V Type

0	Standard
5	Heavy Duty

PROFI CORNER SHELF TRIANGLE

- Light grey, 30mm thick, melamine resin covered chip board, sides with 3mm PP plastic edge. Lower side with thread inserts for the assembly of the supporting leg and the support.
- Stiffening can be done by support or instrument rack.
- Supporting leg made of PROFI profile (please state height!).
- Durable powder coated according to RAL Code.



PROFI Corner Shelf Triangle 424. **T** **K** **A** 901


T Depth

3	300mm
4	400mm

K Edge Length

0	1213 x 1213mm	2	935 x 935mm	4	1000 x 1200mm
1	835 x 835mm	3	1035 x 1035mm	5	1200 x 1000mm

A Version

0	Standard
5	ESD 



PROFI CORNER SHELF TRAPEZIUM

- Light grey, 30mm thick melamine resin covered chip board, sides with 3mm PP plastic edge. Lower side with thread inserts for the acceptance of the stiffening.
- Stiffening can be done by support or instrument rack.



PROFI Corner Shelf		424. <div>T</div> <div>K</div> <div>A</div> .001				
<div>T</div> Depth	<div>K</div> Edge Length					<div>A</div> Version
3 300mm	0 1213 x 1213mm	2 935 x 935mm	4 1000 x 1200mm	0 Standard		
4 400mm	1 835 x 835mm	3 1035 x 1035mm	5 1200 x 1000mm	5 ESD 		

CABLE TRAY FOR PROFI CORNER SHELF

- Cable tray made of sheet steel with openings for cable access.
- Durable, light grey powder coating.
- Dimensions: 70 x 95mm (DxH).



Edge Length		Edge Length		Edge Length	
426.519.000	835 x 835	426.529.000	1035 x 1035	426.549.000	1000 x 1200
426.559.000	935 x 935	426.539.000	1200 x 1000	426.509.000	1213 x 1213



PROFI SHELF RACK

- The shelf rack is for direct assembly on the bench top or for suspended use between extension (please choose suitable stiffening!).
- Body made of 19mm melamine resin covered chipboard. Color: light grey, pearl structured.
- Incorporated, decorative 13mm thick rear wall.
- Sides and intermediate wall with 32mm hole strip for acceptance of the shelfboards in variable height.
- The 2OH rack is with 2 height adjustable shelf boards.
- Depth: 430mm.




ESD Version:



- Body made of conductive 19mm melamine resin covered chipboard.
- Conductive shelfboards.
- All components are with conductive connection.

PROFI Shelf Rack 423.BB H.0 F A

BB Width				H Heigh		F Extensions		A Version	
05	500mm	13	1295mm	2	380mm (1OH)	0	with Cutout for SINGLE / MULTI	1	Standard
06	603mm	15	1500mm	3	720mm (2OH)	1	between SINGLE / MULTI (W: -80mm)	6	ESD 
08	800mm	16	1600mm			5	between ENERGY (W: -204mm)		
09	900mm	18	1800mm			6	no Cutout (width = bench width)		
10	1000mm	20	2000mm						
12	1200mm	23	2303mm						

PROFI Corner Shelf Rack 423.5 K H.00 A

K	Edge Length	H	Height	A	Version
0	1213 x 1213mm	2	380mm (1OH)	1	Standard
1	835 x 835mm	3	720mm (2OH)	6	ESD 
5	935 x 935mm				
2	1035 x 1035mm				




PROFI SHELF RACK WITH SLIDING DOORS

- Body made of 19mm melamine resin covered chipboard. Color: light grey, pearl structured.
- Incorporated, decorative 13mm thick rear wall.
- Sides and intermediate wall with 32mm hole strip for acceptance of the shelfboards in variable height. Sliding doors with easy running synthetic roller guides.
- Pushlock (master-key system) and two keys.
- Each compartment with height adjustable shelf board.
- Depth: 430mm.




PROFI Shelf Rack with Sliding Doors

423.BB H .0 F A

BB Width	H Height	F Extensions	A Version
05 500mm 13 1295mm	4 380mm (1OH)	0 with Cutout for SINGLE / MULTI	1 Standard
06 603mm 15 1500mm	5 720mm (2OH)	1 between SINGLE / MULTI (W: -80mm)	6 ESD 
08 800mm 16 1600mm		5 between ENERGY (W: -204mm)	
09 900mm 18 1800mm		6 no Cutout (width = bench width)	
10 1000mm 20 2000mm			
12 1200mm 23 2303mm			

PROFI Corner Rack with Sliding Doors 423.5 K H .00 A

K Edge Length	H Height	A Version
0 1213 x 1213mm	4 380mm (1OH)	1 Standard
1 835 x 835mm	5 720mm (2OH)	6 ESD 
5 935 x 935mm		
2 1035 x 1035mm		



Shelf Rack with Sliding Doors 1OH



Shelf Rack with Sliding Doors and Corner 2OH

PROFI SHELF RACK WITH ROLLER SHUTTER

- Body made of 19mm melamine resin covered chipboard. Color: light grey, pearl structured.
- Incorporated, decorative 13mm thick rear wall. Sides and intermediate wall with 32mm hole strip for acceptance of the shelfboards in variable height. Roller shutter is rolled up in the sides.
- Pushlock (master-key system) and two keys.
- Each compartment with height adjustable shelf board.
- Depth: 430mm.



PROFI Shelf Rack with Roller Shutter 423. **BB** **H** **0** **F** 1

BB Width

05	500mm	13	1295mm
06	603mm	15	1500mm
08	800mm	16	1600mm
09	900mm	18	1800mm
10	1000mm	20	2000mm
12	1200mm	23	2303mm

H Height

6	380mm (1OH)
7	720mm (2OH)

F Extensions

0	with Cutout for SINGLE / MULTI
1	between SINGLE / MULTI (W: -80mm)
5	between ENERGY (W: -204mm)
6	no Cutout (width = bench width)

PROFI Corner Shelf Rack with Roller Shutter 423.5 **K** **H** .001

K Edge Length

0	1213 x 1213mm
1	835 x 835mm
5	935 x 935mm
2	1035 x 1035mm

H Height

6	380mm (1OH)
7	720mm (2OH)



Shelf Rack with Roller Shutter 2OH



Shelf Rack with Roller Shutter 1OH

PROFI SHELF RACK WITH TILTED FRONT

- Body made of 19mm melamine resin covered chipboard. Color: light grey, pearl structured.
- Incorporated, decorative 13mm thick rear wall.
- Sides and intermediate wall with 32mm hole strip for acceptance of the shelfboards in variable height.
- The 2OH rack is with 2 height adjustable and to the front tilted shelfboards.
- Dimensions: 470/410 x 420/350mm (DxH).




PROFI Shelf Rack with Tilted Front

423. **BB** **A** .001

BB Width

A Version


08	800mm	15	1500mm	0	Standard
09	900mm	16	1600mm	1	ESD 
10	1000mm	18	1800mm		
12	1200mm	20	2000mm		
13	1295mm	23	2303mm		

PROFI Corner Shelf Rack with Tilted Front

423.5 **K** **A** .001

K Edge Length

A Version

0	1213 x 1213mm	0	Standard
1	835 x 835mm	1	ESD 
2	935 x 935mm		
3	1035 x 1035mm		



PROFI BENCH SHIELD, REAR

The shield is installed at the rear side of the bench to separate the workstations if placed back-to-back.




- Incl. assembly set for the rear sided installation at PROFI extensions.

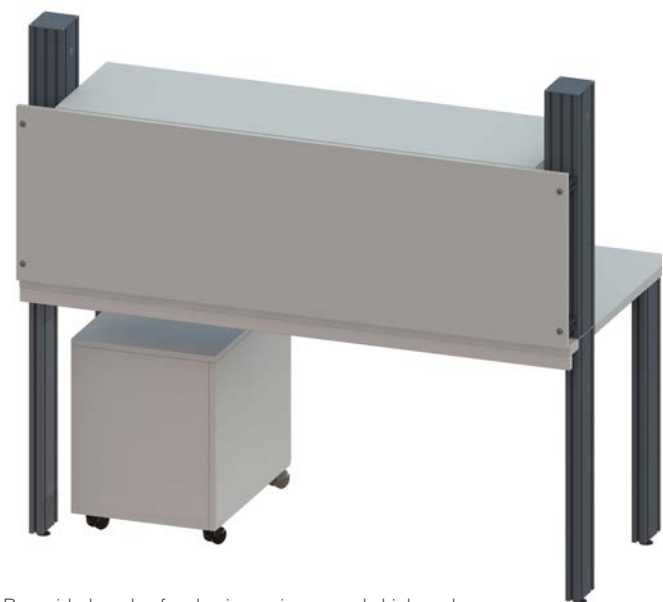
Types:

- Anodized aluminium profiles with transparent 6mm thick standard syntetic sheet (SAN) or conductive polycarbonat:
 - UV proofed
 - high chemical resistance
- 19mm melamine resin covered chipboard standard or ESD, sides with 2mm PP plastic edge.
- Magnetic separator made of 1,5mm thick sheet steel with rounded corners, durable conductive powder coating in light grey.



Transparent Shield, rear sided

PROFI Bench Shield, Rear		417.M BB.HH0							
M Types			BB Width				HH Height		
1	Transparent Rear Shield		05	500mm	10	1000mm	16	1600mm	03 300mm 07 700mm
2	Trannsparent Rear Shield, ESD		06	603mm	12	1200mm	18	1800mm	04 400mm 08 800mm
5	Melamine Covered Rear Shield		08	800mm	13	1295mm	20	2000mm	05 500mm 09 900mm
6	Melamine Covered Rear Shield, ESD		09	900mm	15	1500mm	23	2303mm	06 600mm 10 1000mm
8	Sheet Steel Rear Shield, ESD								



Rear sided made of melamine resin covered chipboard



Rear sided shield made of powder coated sheet steel

PROFI BENCH SHIELD, SIDE

Version 1: Bench Top Mounted Shield

(only for SINGLE / MULTI extensions)

- Open frame made of anodized aluminium profile 30x30mm.
- Connectors for fixation to the SINGLE / MULTI extensions.
- Shield implemented into the profile slots.
- Suitable for positioning more benches in a row.



Version 2: Side Attached Shield

(also suitable for ENERGY extensions)

- Frameless version with bores for solid 3-point fixation.
- Incl. assembly set for the fixation to the PROFI profiles.

Shield Types:

- Anodized aluminium profiles with transparent 6mm thick standard syntetic sheet (SAN) or conductive polycarbonat:
 - UV proofed
 - high chemical resistance
- Shield made of highly sturdy hardlamine 5mm thick with rounded edges, black core and light grey surface.
- Magnetic separator made of 1,5mm thick sheet steel with rounded corners, durable conductive powder coating in light grey.

PROFI Bench Shield, Side		417.MAT.HH0	
M Types	A Version	T Depth	HH Height
1 Transparent Side Shield	4 Bench Top Mounted	8 800mm	03 300mm 07 700mm
2 Transparent Side Shield, ESD 	6 Side Attachment	9 900mm	04 400mm 08 800mm
5 Hardlaminated Side Shield 5mm		0 1000mm	05 500mm 09 900mm
8 Sheet Steel Side Shield, ESD 			06 600mm 10 1000mm



Bench Top Mounted Type



Side Attachment Type

THE SUITABLE LIGHT FOR EACH PROFESSION

Especially in laboratories or workshops, where precision is part of the daily routine, it is very important to have perfect light conditions. No matter if natural, artificial or a combination of both, there must be always enough light, in a glare-free manner and in a comfortable color, that helps to draw full attention on your current project for the longest possible duration.

For that reason we offer different types of light with adjustable parameters to suit your individual desires.



PROFI LED WORKSTATION LAMP ST (STANDARD)

Slim design made of anodized aluminium profile with tiltable optics and thus perfect for the discreet installation to shelves or racks.

- Anodized aluminium profile with cooling fins.
- Housing 320° tiltable, ø 25mm.
- Triangled side parts (W: 95mm) for completely hidden cable runs, with switch.
- Incl. 24V supply.
- Continuous LED module strip with narrow LED pattern for an absolute homogeneous illumination of the complete bench top.

Version:

- Install-Unit firmly wired and supply unit integrated in instrument rack.
- Attachment-Unit firmly wired with supply unit integrated in extra housing, which is e.g. attached under shelf or bench top (for configurations without instrument rack).
- Add-On-Unit with plug connector and supply unit with housing (for retro-fitting).

Dimmer:

- Optional dimmable with microcontroller controlled PWM dimmer, brightness adjustable 0...100%.

Technical Details:

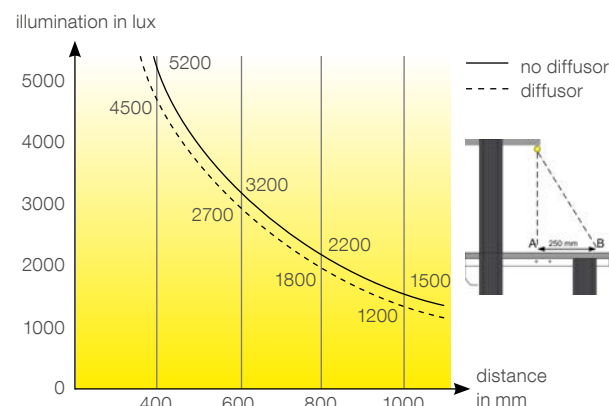
- Module length: 300mm, consisting of 28 OsramLEDs, gapless positioned, module power approx. 14,4W.
- Brightness: 2.000lm (>3.300 lux in a distance of 500mm).
- Emitting angle: 120°.
- Color reproduction Ra: typ. 85.
- Color temperature: 5.000K (neutral white).
- Color quality: Single binning according to ANSI (finely selected LEDs for a constant light temperature).



0...100 % DIMMABLE



320° TILTABLE



Housed LED Power Supply 365 x 68 x 38mm (WxDxH)



LED with Diffusor / LED without Diffusor

PROFI LED Workstation Lamp ST 456. B 61. M 0 A

B Width (Lumen)

1	500mm (2.000lm)
2	800mm (4.000lm)
3	1100mm (6.000lm)
4	1400mm (8.000lm)
5	1700mm (10.000lm)
6	2000mm (12.000lm)

M Version

0	Installation-Unit
2	Attachment-Unit
1	Add-On-Unit
5	Installation-Unit with Dimmer
6	Attachment-Unit with Dimmer
7	Add-On-Unit with Dimmer
8	IMOD Integration (controlled by IMOD) Control-Unit)

A Type

1	no Diffusor for a maximum of illumination
2	with Diffusor for homogeneous illumination without shading
3	Waterproofed IP67, PU potted

PROFI LED WORKSTATION LAMP PR (PREMIUM)

Slim design made of anodized aluminium profile with tiltable optics and thus perfect for the discreet installation to shelves or racks.

- Anodized aluminium profile with cooling fins.
- Housing 320° tiltable, \varnothing 25mm.
- Triangled side parts (W: 95mm) for completely hidden cable runs, with switch.
- Incl. 24V supply.
- Continuous LED module strip with narrow LED pattern for an absolute homogeneous illumination of the complete bench top.

Version:

- Install-Unit firmly wired and supply unit integrated in instrument rack.
- Attachment-Unit firmly wired with supply unit integrated in extra housing, which is e.g. attached under shelf or bench top (for configurations without instrument rack).
- Add-On-Unit with plug connector and supply unit with housing (for retro-fitting).

2-Channel DIMMER with adjustable white:

- Dimmable brightness 0...100%.
- Stepless adjustable color temperature between 2.700K (warm white) to 5.500K (cold white).
- 2-Channel microcontroller controlled PWM dimmer.

Technical Details:

- Module length: 400mm, consisting of 42 Osram LEDs, gapless positioned, module power approx. 23W.
- Brightness: 3.000lm (> 4.500 lux in a distance of 500mm).
- Emitting angle: 120°.
- Color reproduction Ra: typ. 85.
- Color temperature adjustable due to alternating arrangement of warm white and cold white LEDs.



0...100% DIMMABLE

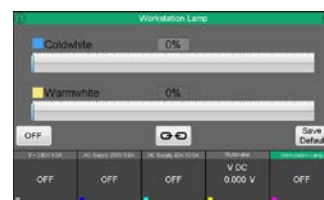
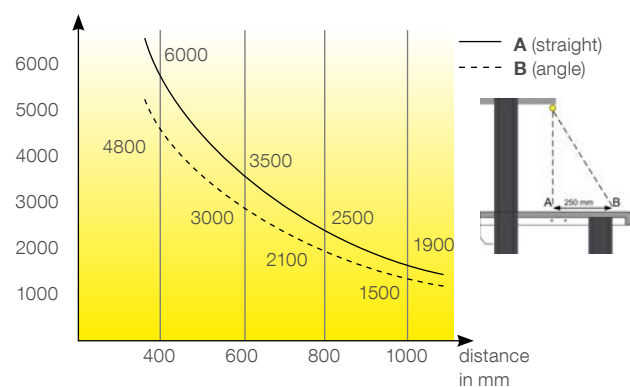


320° TILTABLE

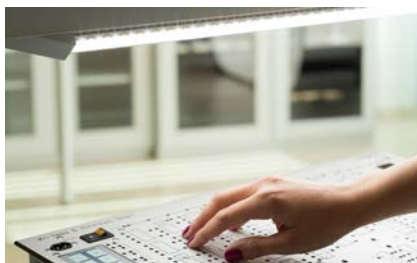


COLOR TEMPERATURE ADJUSTMENT

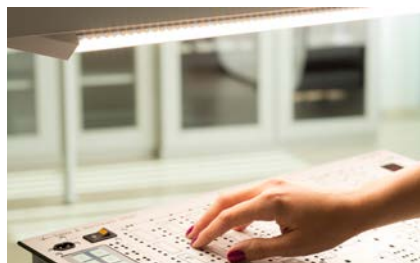
illumination in lux



IMOD Integration
(completely controlled with IMOD Control-Unit)



adjustable color temperature: cold white (5.500K)



neutral white



to warm white (2700K)

PROFI LED Workstation Lamp PR 456. **B** 81. **M** 0 **A**

B Width (Lumen)

1	600mm (3.000lm)
2	1000mm (6.000lm)
3	1400mm (9.000lm)
4	1800mm (12.000lm)

M Version

0	Installation-Unit
2	Attachment-Unit
1	Add-On-Unit
8	IMOD Integration

A Type

1	no Diffusor for a maximum of illumination
2	with Diffusor for homogeneous illumination
3	Waterproofed IP67, PU potted

PROFI LED WORKSTATION LAMP WITH GOOSENECK

- The highly flexible gooseneck allows a precise positioning of the lamp.
- Housing with button for dimmer and color adjustment (only PR).
- Tilttable lamp body made of aluminium profile with cooling fins.
- Lamp body with LED module strip and diffusor in full length.
- Separate 24V power supply with integrated dimmer in sheet steel housing 365 x 68 x 38mm (WxDxH).

Version:

- Adapter for PROFI sleeve suitable for PROFI Swivel Arm (491.002.000).
- Bench clamp with max. span width of 90mm.
- Sliding adapter for the assembly to the ENERGY profile, aluminium board or multimedia support.
- Sliding mechanism for horizontal movement of the lamp across the full bench width.

Technical Details to the LED Lamp:

- Version ST see page 088
- Version PR see page 089



2-channel dimmer with stepless adjustable color temperature



0...100 % DIMMABLE



COLOR TEMPERATURE ADJUSTMENT



Type with PROFI sleeve and PROFI swivel arm



Type with bench clamp



Sliding adapter in ENERGY profile



Sliding adapter in multimedia support

PROFI LED Workstation Lamp with Gooseneck 456 LA 1 M S 2

LA Type (Length)

06	Standard ST L: 75mm (500lm)
16	Standard ST L: 150mm (1000lm)
26	Standard ST L: 300mm (2000lm)
08	Premium PR L: 133mm (1000lm)
18	Premium PR L: 266mm (2000lm)
28	Premium PR L: 400mm (3000lm)

M Type

1	Adapter with PROFI Sleeve
2	Bench Clamp
3	Sliding Adapter for ENERGY Profile
4	Sliding Adapter for Multimedia Support

S Gooseneck

4	500mm
5	800mm

DAZZLE PROTECTOR FOR LED WORKSTATION LAMP

Especially for height adjustable workstations, looking into the bright light when adjusting the bench height or the emitting angle of the lamp might be unavoidable. This can be prevented by installing the dazzle protector to the cooling fins of the lamp.



Dazzle Protector		456.0 BB .001
BB Width		
05	ST 500mm	14 ST/PR 1400mm
06	PR 600mm	17 ST 1700mm
08	ST 800mm	18 PR 1800mm
10	PR 1000mm	20 ST 2000mm
11	ST 1100mm	

OPTION HIDDEN CABLE RUN

- This option is for a milled slot in shelf or rack with light grey plastic cover for a hidden cable run.



Option Hidden Cable Run	458.000.000
-------------------------	-------------

HEIGHT ADJUSTABLE CABLE RUN IN ENERGY EXTENSION

- Milled slot with plastic cover in ENERGY extension for a hidden cable run between shelf / rack and ENERGY extension in adjustable height.
- Rear sided bore with cable gland in ENERGY extension.

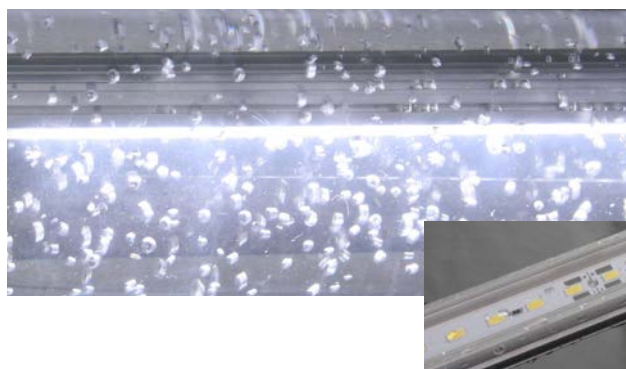


Cable Run in ENERGY Extension	458.000.100
-------------------------------	-------------

LED WORKSTATION LAMP IP67

This type of LED Workstation Lamp is fully water resistant and thus perfect for the installation in wet areas, e.g. machines with liquid cooling.

- The LED modules are fully casted inside the lamp housing with two component PU compound.



► see details for PROFI LED Workstation Lamp ST / PR

OPTION MAGNET HOLDER

The add-on unit of the PROFI LED Workstation lamp can be equipped with magnet holders for the use at sheet steel shelves.

- Magnets for lamp housing.
- Magnets for power supply.
- Magnets for 10x10mm cable channel.

Option Magnet Holder

456.000.000



UNIVERSAL LED FLATLIGHT

- Very flat and nicely shaped LED light with integrated power supply and switch.
- Dimensions: 40 x 15mm (DxH).
- Homogeneous and shadowfree illumination due to gapless LED arrangement and diffuser.
- Longlasting 80mW LEDs (approx. 30.000h).
- Energyefficient: 1430lm/m (80lm/W).
- Color reproduction: Ra/CRI > 80.
- Color: neutral white, approx. 4.000K.



Universal LED Flatlight

299.106.045	Length 450mm / 8 Watt / 640lm
299.106.060	Length 600mm / 10 Watt / 800lm
299.106.090	Length 900mm / 15 Watt / 1200lm
299.106.120	Length 1200mm / 18 Watt / 1440lm



PRACTICAL SOLUTIONS FOR TRAINING FACILITIES

The ideal educational laboratory holds sufficient electrical protection to keep the trainees safe and offers the optimal equipment for current and future training targets. It facilitates teaching in an interesting and comfortable learning environment.



PROFI SLIDING MECHANICS, STANDARD

The sliding mechanics in combination with a training system frame allows the student to work in an ergonomic upright position. The frame can be slid to the front while used and slid to the rear when not needed.

- Two linear rails made of anodized aluminium profile 40x40mm which are attached at the sides of the bench.
- Sliding mechanism allows to lock the optional training system frame in 3 positions.

NOTE: Suitable for later-on installation.

PROFI Sliding Mechanics, Standard	
461.008.001	for Bench Depth: 800mm
461.009.001	for Bench Depth: 900mm
461.010.001	for Bench Depth: 1000mm



PROFI SLIDING MECHANICS, INTEGRATED

The sliding mechanics in combination with a training system frame allows the student to work in an ergonomic upright position. The frame can be slid to the front while used and slid to the rear when not needed.

- Two linear rails made of anodized aluminium profile 40x40mm which are integrated into the bench (usable bench width reduced by 80mm).
- Sliding mechanism allows to lock the optional training system frame in 3 positions.

TIPP: Gapless bench set-ups in a row.

PROFI Sliding Mechanics, Integrated	
461.008.002	for Bench Depth: 800mm
461.009.002	for Bench Depth: 900mm
461.010.002	for Bench Depth: 1000mm



Sliding Mechanics, Standard



Sliding Mechanics, Integrated

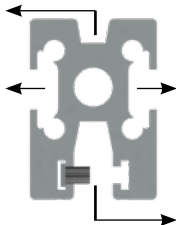
TRAINING SYSTEM FRAME FOR STANDARD A4 PANELS

- H-Profile in DIN A4 height to hang up training panels in standard size.
- Lower side with incorporated brush strip for clatter-free use.
- Upper side with V-slot for training systems with max. 6mm thick front panels.
- Front - and rear side with slots for sliding nuts.
- With side parts, prepared for the assembly between the PROFI extensions.
- Dimensions: 26 x 37mm (DxH).
- The training system frames for the sliding mechanics includes a small part tray for extra cross-stability.



V-slot for tight fitting to training systems

rear side prepared to accept cable trays or other components



front side prepared for the acceptance of different accessory

incorporate brush for clatter-free utilization

Training System Frame				461. <div>BB</div> <div>H</div> <div>9</div> <div>F</div> <div>O</div>					
<div>BB</div> Bench Width				<div>H</div> Levels/ Height		<div>F</div> Extensions		<div>O</div> H-Profile	
05	500mm	13	1295mm	0	Single H-Profile	0	between SINGLE / MULTI	0	aluminium anodized
06	603mm	15	1500mm	1	2x H-Profile / 360mm	3	Sliding Mechanics, Standard	2	powder coated
08	800mm	16	1600mm	2	3x H-Profile / 680mm	4	Sliding Mechanics,		
09	900mm	18	1800mm	3	4x H-Profile / 1000mm	5	between ENERGY		
10	1000mm	20	2000mm						
12	1200mm	23	2303mm	461.000.500 Slot Adapter for Training Systems <ul style="list-style-type: none">Slot adapter, if an Aluboard should be used as part of Training System FrameWhite plastic U profile as reduction for aluboard slot					



INSTALLATION WALL FOR TRAINING BOXES

The installation walls are for hanging into the training system frame, so the frame can either be used for training panels or training boxes.

- Raster dimensions are 12x5 (hera specific) or 10x5mm (universally for hera and other brands in suitable raster).
- Sheet steel with 1,5mm bending for surrounding reinforcement and durable light grey powder coating.
- 2 level type with integrated white plastic handles.

Installation Wall, detachable		461. BB E 10 R	
BB Width	E Levels	R Raster	
06 600mm	1 1 Level	3 hera-Raster 12 x 5mm	
08 800mm	2 2 Level	4 E-Raster 10 x 5mm	



Installation Walls for Training System Frame, 2 levels and 1 level

WOODEN INSTALLATION WALL FOR TRAINING SYSTEM FRAME

- 19mm plywood panel.
- Incl. hangers and holding screws for training system frame.

Wooden Installation Wall		461. BB E .800	
BB Width	E Levels		
08 800mm	2 2 Levels (H: 680mm)		
12 1200mm	3 3 Levels (H: 1000mm)		



TURNING MECHANISM FOR TRAINING SYSTEM FRAMES

consisting of:

- Pair of side parts with turning mechanism and locking pin.

NOTE:

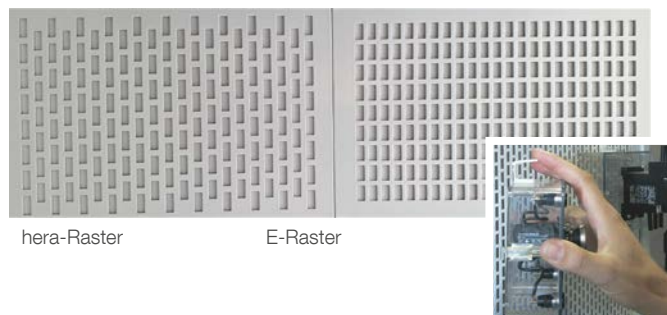
- Choose suitable training system frame or firmly installed installation wall for training boxes.
- An extra stiffener between the extensions is recommended.

Turning Mechanism for Training System Frames	
461.001.100	1 Level with 2 Locking Pins
461.001.200	2 Levels with 4 Locking Pins



INSTALLATION WALL, FIRMLY MOUNTED

- Sheet steel with 1,5mm bending for surrounding reinforcement and durable light grey powder coating.
- Raster dimensions are 12x5 (hera specific) or 10x5mm (universally for hera and other brands in suitable raster).
- The installation walls are prepared for the fixation between the PROFI extensions.



hera-Raster

E-Raster

Installation Walls, firmly mounted

461.BB H .1 F R

BB Width

05	500mm	10	1000mm	16	1600mm
06	603mm	12	1200mm	18	1800mm
08	800mm	13	1295mm	20	2000mm
09	900mm	15	1500mm	23	2303mm

H Height

1	360mm
2	680mm
3	1000mm

F Extensions

0	between SINGLE / MULTI
3	for Sliding Mechanics, Standard
4	for Sliding Mechanics, Integrated
5	between ENERGY

R Raster

0	hera-Raster
1	E-Raster

CABLE TRAY FOR TRAINING SYSTEM FRAME

- Made of sheet steel for the acceptance of long laboratory cords or small parts.
- Durable powder coated in light grey.
- Dimensions: 100 x 20mm (DxH).

Cable Tray for Training System Frame 461.BB 5.902

BB Width

08	800mm	10	1000mm	13	1295mm	16	1600mm
09	900mm	12	1200mm	15	1500mm	18	1800mm
						20	2000mm



DISTRIBUTION PANEL FOR TRAINING SYSTEM FRAME

- For a clearly arranged circuit wiring, the distribution panel provides multiple distribution points. Closed housing for touch protection.
- 5 rows of 4mm safety jacks (completely wired).
- Durable light grey powder coated.
- Dimensions: 50 x 90mm (DxH).

Distribution Panel for Training System Frame 461.BB 6.902

BB Width

08	800mm	10	1000mm	13	1295mm	16	1600mm
09	900mm	12	1200mm	15	1500mm	18	1800mm
						20	2000mm



INSTRUMENT TRAY

- For instruments max. 378 x 290mm (WxD).
- Frame with tiltable tray, made of sheet steel for hanging into the training system frame.
- The tiltable tray is with position lock and stop edges.
- Durable light grey powder coating.

461.930.000

Instrument Tray



SPARES FOR TRAINING SYSTEMS

- Hard laminated front panel 5mm thick with camfered edges, black core, light grey surface. Height: 297mm.
- Tilted hoods made of light grey plastics. Depth: 90/50mm; height: 270mm.

Spares for Training Systems

500.000.001	Front Panel S (W:1 33)
500.000.002	Front Panel M (W: 266)
500.000.003	Front Panel L (W: 532)
500.000.011	Front Panel S with Tilted Hood
500.000.012	Front Panel M with Tilted Hood
500.000.013	Front Panel L with Tilted Hood
500.000.021	Tilted Hood S
500.000.022	Tilted Hood M
500.000.023	Tilted Hood L



CLAMP HOLDER FOR TRAINING SYSTEMS

- For a firm fixation of the training systems. mit Sterngriff
- Made of durable powder coated sheet steel.
- Rubber surface for slip-protection.

950.004.000

Clamp Holder for Training System



SPARES FOR TRAINING BOXES

- Completely closed transparent box with screw-fixed cover.
- Replacable hooks and position locks.
- For the flexible use in installation walls.
- Dimensions: 115 x 115 x 50mm.

Spares for Training Boxes

302.000.000	Transparent Box, unequipped (not assembled)
302.000.010	Set of Hooks
302.000.020	Position Lock



INSTALLATION DOWELS FOR SURFACE INSTALLATIONS

- Set of dowels for trainings with surface installation material.
- Incl. panhead screws, length: 9,5mm.

301.150.100

Installation Dowels (100pcs)



PRACTICAL ACCESSORY ESPECIALLY FOR WORKSHOP BENCHES

Besides the laboratory components, the PROFI program holds all relevant options for a well equipped workshop, e.g. overhead lamp, tool holders, pressured air supply for tools, bin holders, swivel arms, ... everything necessary for an ergonomic workstation.



PROFI OVERHEAD FRAME

- Cross brace made of aluminium profile 30 x 30mm for the acceptance of a tool slide.
- SD Type:
Depth braces made of sheet steel, durable powder coated.
Height: 75/30mm.
- PD Type:
Depth braces with 45° stiffener made of aluminium profile 30 x 30mm, durable powder coated.
Height: 230mm.



SD Type for SINGLE/ MULTI



SD Type for ENERGY



PD Type for SINGLE / MULTI / ENERGY 45°

PROFI Overhead Frame 450. BB T A 00								
BB Width			T Depth			A Type		
09	900mm		13	1295mm	18	1800mm	0	SD for SINGLE / MULTI
10	1000mm		15	1500mm	20	2000mm	1	SD for ENERGY
12	1200mm		16	1600mm	23	2303mm	9	PD for SINGLE / MULTI/ ENERGY 45°

PROFI LED OVERHEAD LAMP

- Glarefree overhead lamp with parabolic reflector.
- Lamp housing made of white sheet steel 207 x 56mm (DxH).
- Brightness adjustable in 3 steps in the lamp housing.
- Color reproduction: 4000K (Ra: >80).
- Hidden cable run in overhead frame.

Bench Width: ≤ 1600mm (Lamp Width: 1245mm):

- Power: 51W (can be reduced to 35W or 24W).
- Brightness: 7600lm (5600 or 4000lm).

Bench Width: ≥ 1800mm (Lamp Width: 1545mm):

- Power: 63W (can be reduced to 44W or 30W).
- Brightness: 9600lm (7100 or 5100lm).

PROFI LED Overhead Lamp 455. BB 0.05 A				
BB Bench Width			A Version	
13	1295mm	18	1800mm	2 for Overhead Frame PD
15	1500mm	20	2000mm	3 for Overhead Frame SD
16	1600mm	23	2303mm	



PROFI MULTIFUNCTIONAL LED LAMP FOR OVERHEAD FRAME

- Ergonomic LED lamp made of anodized aluminium profile with rear sided slot M8.
- Height: 65mm; depth: 45mm.
- Homogeneous, shade-free illumination of the full workspace due to microprism optics.
- Light color: 5.500 K (Ra: >85).
- Emitting angle: 100°.
- Optionally with dimmer button.
- Incl. switch and 3m power cord.
- Tiltable mounting brackets.



PROFI Multifunctional LED Lamp 458.0 **BB** . **A** 01

BB Width

05	500mm (13W / 1575lm)
09	900mm (25W / 3150lm)
12	1200mm (34W / 4410lm)
15	1500mm (39W / 5040lm)

A Type

0	Standard
1	Dimmable



TOOL SLIDE WITH SNAP HOOK FOR OVERHEAD FRAME

- For hanging tools slidable into the overhead frame.
- Width: 60mm, bore-Ø: 8mm.
- Color: black.



Tool Slide with Snap Hook

459.100.100

SPRING BALANCER FOR OVERHEAD FRAME

- Spring balancer to hang tools into the overhead frame, weight adjustable in different ranges.
- Cord length: 1,6m with snap hook.

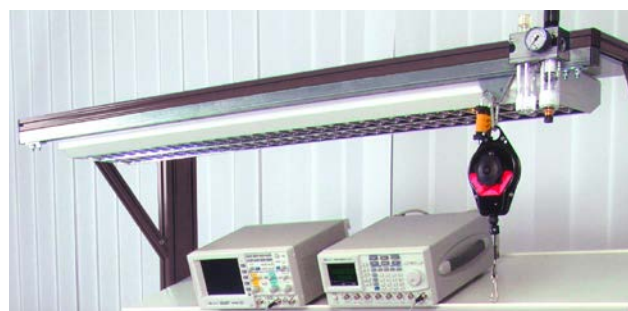
Spring Balancer	
459.100.190	0,4 - 1,0kg
459.100.200	1,0 - 2,0kg
459.100.210	2,0 - 3,0kg



SLIDING RAIL FOR PROFI OVERHEAD FRAME

- C-rail made of sheet steel with snap hook slide on ballbearings.
- Fixing set for the assembly to the PROFI Overhead Frame.
- Dimensions: 30 x 32 x 2mm.

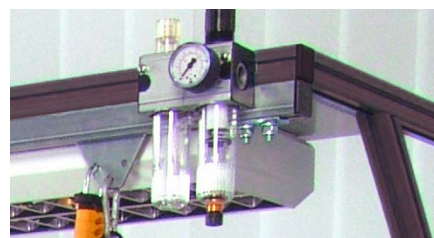
Length		Length	
1295mm	451.130.000	1800mm	451.180.000
1500mm	451.150.000	2000mm	451.200.000
1600mm	451.160.000	2303mm	451.230.000
451.000.000 Snap Hook Slide without C-Rail			



PRESSURED AIR UNIT WITH FILTER

- For the assembly to the PROFI Overhead Frame.
- Two part pressure unit consisting of an pressure independent reversible diaphragm pressure control valve with secondary ventilation with centrifugal separator and oiler.
- Output with quickfastener NW7,2.

Pressured Air Unit with Filter	459.200.100
--------------------------------	-------------



SPIRAL HOSE QUICK CONNECTOR

- Polyurethan spiral hose with connector and coupler NW7,2 for medium temperature -20°C to +60°C.
- Diameter: approx. 50mm.
- Service length: 4m.
- Operating pressure: max. 10 bar.

Spiral Hose Quick Connector	459.200.150
-----------------------------	-------------



PROFI PERFORATED BACKPLANE BETWEEN EXTENSIONS

- For the assembly between the extensions. The back plane can be used to attach tool holders, storage bin bars, etc.
- With 10x10mm perforation in 38mm raster.
- Made of sheet steel (1,5mm) with surrounding bending for reinforcement.
- Durable light grey powder coating
- Incl. assembly set.



PROFI Perforated Backplane between Profiles 460. **BB** **H** .9 **F** 1

BB Width

05	500mm	09	900mm	13	1295mm	18	1800mm
06	603mm	10	1000mm	15	1500mm	20	2000mm
08	800mm	12	1200mm	16	1600mm	23	2303mm

H Height

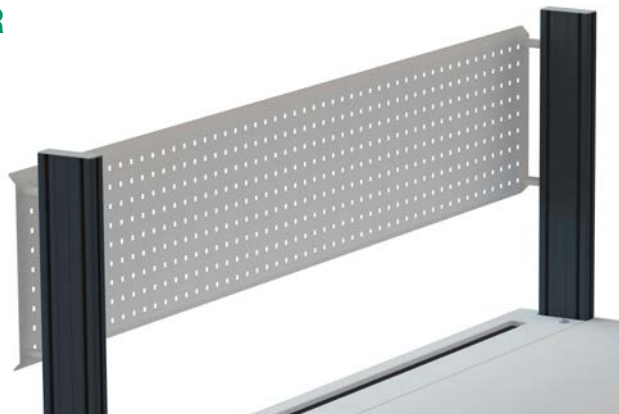
0	150mm
5	350mm

F Extensions

0	SINGLE / MULTI
5	ENERGY

PROFI PERFORATED BACKPLANE, REAR

- For the assembly between the extensions. The back plane can be used to attach tool holders, storage bin bars, etc.
- With 10x10mm perforation in 38mm raster.
- Made of sheet steel (1,5mm), upper and lower side with 45° bending for reinforcement.
- Durable light grey powder coating.
- 4x distance profiles 40x40mm, incl. assembly set.



PROFI Perforated Backplane, rear 460. **BB** **H** .902

BB Width

08	800mm	10	1000mm	13	1295mm	16	1600mm	20	2000mm
09	900mm	12	1200mm	15	1500mm	18	1800mm	23	2303mm

H Height

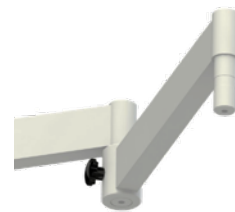
0	150mm
5	350mm



PROFI SWIVEL ARM AND SLEEVE

Swivel arm for various applications with solid sleeve/
bolt combination.

- Sleeve for the adaption to the PROFI profiles.
- Made of steel with durable conductive powder coating in light grey.
- Load capacity: max. 50kg.



PROFI Swivel Arm



PROFI Sleeve



PROFI Swivel Arm and Sleeve	
491.002.000	Sleeve for PROFI Swivel Arm Ø 20mm
491.003.000	PROFI Swivel Arm, Reach: 250mm
491.004.000	PROFI Swivel Arm, Reach: 300mm
491.005.001	PROFI Swivel Arm, Reach: 500mm
491.002.100	Set 1: Sleeve + Swivel Arm, Reach 300mm
491.010.100	Set 2: Sleeve + Swivel Arm, Reach: 300 + 250mm

TRAY FOR PROFI SWIVEL ARM

- Rotatable tray made of sheet steel with surrounding stop edge.
- Durable conductive powder coating in light grey.
- Bolt (Ø 20mm).



Tray for PROFI Swivel Arm	
491.026.100	300 x 300 x 10mm (WxDxH)
491.026.110	400 x 400 x 10mm (WxDxH)
491.026.120	500 x 500 x 10mm (WxDxH)

TILTABLE TRAY FOR PROFI SWIVEL ARM

- Front and sides with 20mm stop edge. Tiltable in 3 steps (0°/ 5°/ 10°/ 15°).
- Made of sheet steel.
- Durable conductive powder coating in light grey.



Tiltable Tray for PROFI Swivel Arm	
491.027.110	300 x 250mm (WxD)
491.027.130	450 x 350mm (WxD)
491.027.150	650 x 500mm (WxD)

BIN SUPPORT FOR PROFI SWIVEL ARM

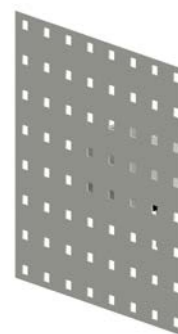
- Hanging rails for storage bins.
- Durable conductive powder coating in light grey.
- Bolt (Ø 20mm).



Width	1 Level	3 Levels
300mm	491.022.101	491.022.300
400mm	491.022.111	491.022.310
500mm	491.022.121	491.022.320

PERFORATED BACKPLANE FOR PROFI SWIVEL ARM

- For the acceptance of tool holders.
- Made of sheet steel (1,5mm) with surrounding bending for reinforcement.
- Durable conductive powder coating in light grey.



Perforated Backplane for PROFI Swivel Arm

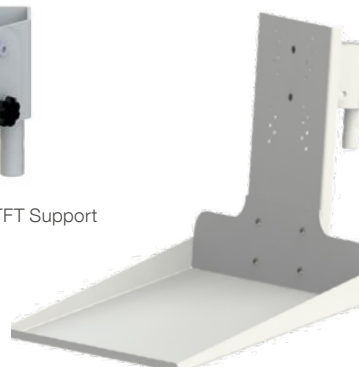
491.024.101	300 x 290mm (WxD)
491.024.111	300 x 130mm (WxD)
491.024.121	550 x 290mm (WxD)
491.024.131	550 x 130mm (WxD)

TFT SUPPORT FOR PROFI SWIVEL ARM

- Solid swivel head (+/- 20°) with 2x fixing screws and bolt (Ø 20mm).
- Adapter plate for VESA standard (100x100mm and 75x75mm).
- Keyboard tray 470 x 220 x 320mm (WxDxH).
- Swivel mouse pad 200 x 200mm.
- Durable conductive powder coating in light grey.



491.028.101 TFT Support



491.028.111 TFT Support with Keyboard Tray



491.028.121 TFT Support with Keyboard Tray and Mouse Pad

TFT Support for PROFI Swivel Arm

491.028.101	TFT Support
491.028.111	TFT Support with Keyboard Tray
491.028.121	TFT Support with Keyboard Tray and Mouse Pad

NOTEBOOK - / KEYBOARD SUPPORT FOR PROFI SWIVEL ARM

- Solid swivel head (+/- 20°) with 2x fixing screws and bolt (Ø 20mm).
- Tiltable tray made of sheet steel with angled stop edge at the front.
- Notebook tray: 400 x 300mm (WxD).
- Keyboard tray: 470 x 200mm (WxD).
- Durable conductive powder coating in light grey.



491.028.320 Notebook Tray



491.028.330 Keyboard Tray



491.028.330 + 491.028.340
Keyboard Tray with Mousepad

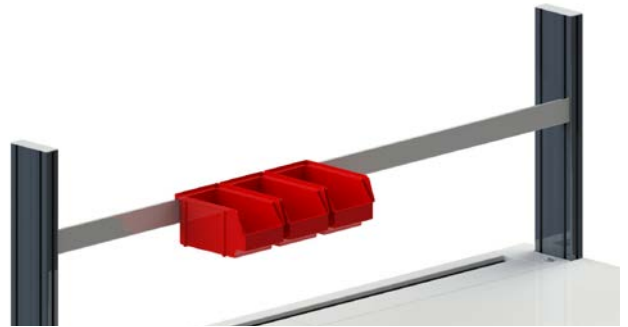
Notebook - / Keyboard Support for PROFI Swivel Arm

491.028.320	Notebook Tray
491.028.330	Keyboard Tray
491.028.340	Option Mousepad for Keyboard Tray

PROFI BIN BAR FOR STORAGE BINS

- Made of double folded 2mm sheet steel for solid rigidity over the full width.
- Durable light grey powder coated.
- Incl. assembly set for the fixation between the PROFI extensions.
- Dimensions: 30 x 60mm (DxH).

► see chapter 13 for suitable storage bins



PROFI Bin Bar for Storage Bins 462.BB 0.0 F 0									
BB Width								F Extensions	
800mm	10	1000mm	13	1295mm	16	1600mm	20	2000mm	0 SINGLE / MULTI
900mm	12	1200mm	15	1500mm	18	1800mm	23	2303mm	5 ENERGY

PROFI BACKPLANE FOR SOCKET STRIP „INDUSTRY“

- The PROFI Backplane for socket strips is mounted between the extensions in flexible height.
- Including openings for cable access, made of sheet steel, durable powder coated in light grey.
- Dimensions: 46 x 76mm (DxH).

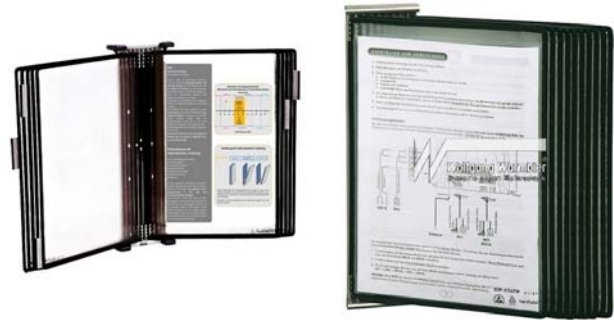


PROFI Backplane for Socket Strip „Industry“ 463.BB 0.0 F 0				Socket Strip „Industry“, Type F	
BB Width				F Extensions	
05	500mm	15	1500mm	0 SINGLE / MULTI	293.204.100 4 Port with Switch (L: 355mm)
06	603mm	16	1600mm	5 ENERGY	293.206.100 6 Port with Switch(L: 440mm)
08	800mm	18	1800mm		293.209.100 9 Port with Switch (L: 570mm)
10	1000mm	20	2000mm		293.212.100 12 Port with Switch(L: 700mm)
12	1120mm	23	2303mm		
13	1305mm				



ESD DOCUMENT PROTECTOR DIN A4

- 10x DIN A4 document protectors in a black metallic frame with transparent ESD polyethylen foils in ESD.
- Stainless steel frame and assembly set for the fixation to the PROFI extensions.



ESD Document Protector DIN A4

468.100.100

PROFI BOTTLE HOLDER

- Two part aluminium bottle holder for max. bottle diameter of 94mm.
- Incl. assembly set for the fixation to the PROFI profile in flexible height.
- Durable light grey powder coating.
- Dimensions: 117 x 120mm (DxH).



PROFI Bottle Holder

468.200.102	1x Bottle, Width 114mm
468.200.202	2x Bottles, Width 210mm

PROFI SWITCH MODULE

- Mounting plate made of sheet steel with durable light grey powder coating and top mount toggle switch with control lamp. Prepared for the assembly to the PROFI profile.
- Hidden cable run inside the cable channels of the PROFI profile.
- Incl. complete wiring and installation.



PROFI Switch Module

468.300.000

SWITCH INTEGRATED IN MULTI PROFILE

- In MULTI profile integrated illuminated 2poles switch.
- Incl. complete wiring inside the profile.



Switch Integrated in MULTI Profile

940.144.300	1x Switch
940.268.500	2x Switch

PROFI CABLE COMB

- Cable comb made of sheet steel with different gaps for the acceptance of cables max. 12mm.
- Durable light grey powder coating.
- Incl. assembly set for the fixation to the PROFI extensions.
- Height: 30mm.



Depth	300/17	500/31	Width / No. Gaps 603/37	800/46	1000/56
80mm	448.160.000	448.180.000	448.200.000	448.220.000	448.240.000
160mm	448.170.000	448.190.000	448.210.000	448.230.000	448.250.000

PROFI CABLE SUPPORT

- Cable support with bow and integrated cable comb made of 3mm thick aluminium sheet.
- Cable comb suitable for lab cords, power cords, etc.
- Durable conductive powder coating in light grey.
- Dimensions: 160 x 100 x 65mm (WxDxH).



PROFI Cable Support

299.221.501

PROFI HOSE - AND CABLE SUPPORT

- Hose support made of aluminium die-cast.
- For acceptance of hoses and cables.
- Dimensions: 190 x 70mm (WxD).



PROFI Hose - and Cable Support

940.196.400





CHAPTER 4: EASY WORKSTATION SYSTEM

- | | | | |
|------------|---|------------|---|
| 110 | Workbench in Standard and ESD | 123 | Height Adjustable Bench |
| 112 | Trapezium Bench and EMV Bench | 124 | Option Lifting Casters |
| 113 | Bench with Casters and PC Support | 126 | Bench Top Frame |
| 114 | Cable Tray and Cable Insert | 127 | Shelving Rack |
| 116 | Corner Solution for EASY Benches | 128 | Shelf Rack |
| 117 | Bench Connector | 130 | Training System Support |
| 118 | Floor Fixation, H-Leg for Mechanical Workshop | 131 | Training System Frame and Installation Wall |
| 119 | Bench Top for Laboratory and Workshops | 132 | Installation Wall, metal and wood |
| 122 | Mechanical Workshop Bench | 133 | Installation Cabin |
| | | 134 | TFT Chest |

EASY WORKBENCH STANDARD AND ESD



- Total height: 780mm.
- Highly stable bench frame made of durable powder coated tubular steel 40 x 40mm.
- Durable, 30mm thick bench top (multilayer chipboard according to DIN EN ISO 13894-1). Upper side with 0,8mm thick hardlamine according to DIN EN 438-2).
- All sides with 3mm PP plastic edge.
- Four bench legs made of tubular steel 40 x 40mm with leveling screws, connected to the bench frame with torsion resistant corner joints.

EASY Workbench

- highly stable bench frame
- surrounding frame made of 40 x 40mm tubular steel
- flexible and vibration-free bench legs with aluminium corner joints

ESD Version:



- Right and left front with press stud for the connection of ESD wrist bands.
- Rear side with defined earth bonding point EBP.
- Surface- and volume conductive bench top (according to DIN EN 61340), all sides with antistatic 3mm PP plastic edge. Conductively connected to the bench frame.
- Bench legs with conductive leveling screws.



Front with 50mm overhang



ESD - and standard bench top



Standard height adjuster

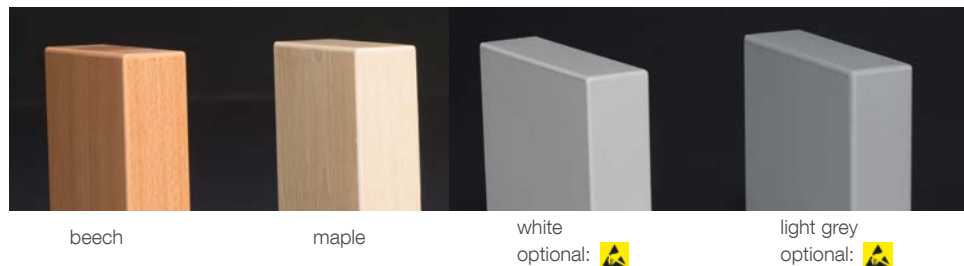
EASY WORKBENCH STANDARD AND ESD

A Type with Middle Brace



- with extra middle brace for even higher load capacity
- with thread inserts for the fixation of a PROFI suspended container in front and middle brace



F Color



EASY Workbench 1 TT BBB F 0 A

TT	Depth	BBB	Width	F	Color (Bench Top / Base)	A	Type
06	600mm	060	600mm	5	light grey / light grey	0	Standard
10	800mm	080	800mm	7	light grey / anthracite	5	with Middle Brace
11	900mm	090	900mm	8	Wood decor (beech/maple) / Base according to RAL Code		
12	1000mm	100	1000mm	9	Bench Top white or light grey / Base according to RAL Code		
ESD		120	1200mm				
37	600mm	126	1260mm				
07	800mm	129	1295mm	Accessory ESD			
27	900mm	148	1485mm				
17	1000mm	150	1500mm	299.890.110	Wrist Band with Spiral Cord		
		160	1600mm	299.890.120	Wrist Band		
		180	1800mm	299.890.130	Spiral Cord		
		200	2000mm	299.890.520	Connection Box with 2x Press Studs 10,3		
		230	2303mm				



OPTION THREAD INSERTS FOR SUSPENDED CONTAINER

- Right and left side of the lower bench top with thread inserts for the fixation of hanging containers.
- Metallic thread inserts M6, pullout-save for heavily loaded containers.

Option Thread Inserts for Suspended Containers

100.110.570	for PROFI Containers, Depth: 580
100.110.670	for PROFI Containers, Depth: 680
100.110.770	for PROFI Containers, Depth: 780
100.120.500	for EASY Containers
100.130.400	for Sheet Steel Containers



EASY TRAPEZIUM BENCH 60°

The trapezium benches are ideal for the realization of hexagonal team workstations. Especially in training rooms the benches can either be placed separately or as team workstation. Also ideal is to have a double sided instrument rack in the middle and place a trapezium bench on both sides.

- Total height: 780mm.
- Surrounding bench frame with bench legs, made of tubular steel 40x40mm.
- Steel parts with durable powder coating.



EASY Trapezium Bench 1 **TT** **BBB** **F** 50

TT Width		BBB Depth		F Color (Bench Top / Base)	
06	600mm	126	1260mm	160	1600mm
10	800mm	130	1295mm	180	1800mm
11	900mm	148	1485mm	200	2000mm
12	1000mm	150	1500mm		
				5	light grey / light grey
				7	light grey / anthracite
				9	light grey or white /
					in RAL Code

EASY EMC BENCH

- Benches for electromagnetic compatibility.
- Bench top made of beech multiplex, oiled, 40mm thick with camfered edges.
- Bench frame made of solid oiled and sanded beech wood.
- Optional with bench top cover:
 - galvanized steel sheet 1,5mm
 - copper sheet 1mm
 - aluminium sheet 2mm
 The covers are screw-fixed or glued and with earth bonding point.

- Load capacity 100kg.
- Bench height: 780mm.
- Optionally with four steering casters, two with brakes.
- Optionally 3-sided with stiffeners (recommended for bench with casters).



EASY EMC Bench 1 **TT** **BB1** **A** **V** **F**

TT Depth		BB Width		A Surface		V Stiffener		F Casters	
10	800mm	12	1200mm	18	1800mm	0	Wood	3	Aluminium
11	900mm	16	1600mm	20	2000mm	0	no Stiffener	0	none
12	1000mm					1	galvan. Steel	4	Stainless Steel
						2	Copper	5	with Stiffener
								5	with

EASY H-STIFFENER

- Recommended for mobile benches and benches for mechanically very rough use.
- Consisting of two side braces and one cross brace, made of tubular steel 40 x 40mm.
- Steel parts durable powder coated.
- Installation height: 100mm.



EASY H-Stiffener 191 . **BB** **T** . **F** 50

BB Width

06	600mm	12	1200mm	16	1600mm
08	800mm	13	1260mm	18	1800mm
09	900mm	14	1485mm	20	2000mm
10	1000mm	15	1500mm	23	2303mm

T Depth

6	600mm
8	800mm
9	900mm
1	1000mm

F Color

1	anthracite
5	light grey
9	RAL Code

EASY BENCH, MOBILE

- Shortened bench legs with integrated threaded plate for the solid fixation of the casters.
- Four steering casters, two with brakes.
- For a total bench height of 780mm.



75mm Standard



with Brake

EASY Bench, Mobil 191 . 07 **A** . **F** **R** 0

A Version

1	Standard
2	ESD 

F Color

1	anthracite
5	light grey
9	RAL Code

R Caster Diameter

0	100mm
1	75mm
2	125mm

EASY PC SUPPORT

- Suspended PC support made of tubular steel supported sheet steel construction for width adjustment between 160 - 210mm.
- The PC support can be mounted at the left or right EASY bench leg.
- Steel parts with durable powder coating.
- Dimensions: 160-210 x 400 x 160mm (WxDxH).

EASY PC Support

191.080.101	anthracite
191.080.501	light grey
191.080.901	RAL Code



CABLE TRAY FOR EASY BENCH

- Made of sheet steel, for the fixation between the rear bench legs in variable height.
- Steel parts with durable powder coating.

EASY Cable Tray 113 . **BBB** . **F** 0 **A**

BBB Width

080	800mm	126	1260mm	160	1600mm
090	900mm	129	1295mm	180	1800mm
100	1000mm	148	1485mm	200	2000mm
120	1200mm	150	1500mm	230	2303mm

F Color

1	anthracite
5	light grey
9	RAL Code

A Type

1	Suspended Cable Tray
5	Cable Tray with Brush Strip (60mm rear overhang)

CABLE INSERT, ROUND

- Plastic outer ring with rotatable spring flap.
- Incl. cutout in bench top.
- The spring flap can be removed for leading through the plugs.

Cable Insert, round (inner - / outer diameter)

419.061.000	Ø 80/92mm, light grey
419.061.100	Ø 80/92mm, stainless steel color
419.061.200	Ø 80/92mm, black
419.061.300	Ø 80/92mm, beige
419.062.000	Ø 60/72mm, light grey
419.062.100	Ø 60/72mm, stainless steel color
419.062.200	Ø 60/72mm, black
419.062.300	Ø 60/72mm, beige
419.062.900	Ø 60/72mm, with 3x USB Port and 2x Audio Jacks, black



Please state the position!

CABLE ACCESS ELEMENT, RECTANGULAR

- Practical bench top element with foldable flap in anodized silver color.
- Black brush strip for cable outlet even if closed.
- Incl. cutout in bench top.

Cable Access Element, rectangular

293.930.310	120 x 120mm
293.930.320	240 x 120mm
419.063.100	276 x 80mm



FLEX SOCKET STRIP

- The socket strip can be placed or fixed into the cable tray of the EASY bench.



FLEX Socket Strip 293 . 6 A S . Z 0 F

A Sockets	S Switch	Z Cable	F Color
3 3 Sockets Type F	0 with Switch	0 no Cable	0 white
4 4 Sockets Type F	1 no Switch	1 1,5m Cable	1 black
6 6 Sockets Type F		3 3m Cable	2 red
293.600.000 Fixing Set for PROFI Profile für FLEX Socket Strip		5 5m Cable	
293.600.010 Connected to the Mains Panel			
293.600.030 Option Socket Strip fixed in Cable Tray			
293.642.100 4x Sockets Type G (British Standard)		293.660.980 6x Sockets Type B (NEMA)	

SOCKET STRIP INDUSTRY, TYPE F

- High quality socket strip in silver colored plastic housing and black outlets with child protection (45° turned), black end caps and fixing tongues.
- Black power cord H05VV-F 3G1,50mm², 2m with angled plug Type F.
- Dimensions: 70 x 45mm (WxH).



Socket Strip Industry

293.204.100 4fold with Switch (L: 355mm)	293.209.100 9fold with Switch (L: 570mm)
293.206.100 6fold with Switch (L: 440mm)	293.212.100 12fold with Switch (L: 700mm)

SOCKET UNIT FOR FURNITURE INTEGRATION

- Silver colored steel sheet frame (248 x 151mm).
- Solid flap-mechanism, snapping into end position (integration depth: 56mm).
- Cable outlet even in closed condition due to brush strip.
- Stable clamp connection for 18 - 30mm thick bench tops.
- The socket unit can be inserted after the flap mechanism is integrated.
- Sockets Type F (others on demand).



Socket Unit for Furniture Integration

293.338.025	Metallic Integration Frame (sim. RAL9006)
293.338.026	Anthracite Integration Frame (sim. RAL7016)
293.911.001	White Integration Frame (sim. RAL9010)
293.333.107	Socket Unit 3fold
293.912.003	Socket Unit 2fold and 1x Keystone Adapter
293.912.002	Socket Unit 1fold and 2x Keystone Adapter



MOUNTING KIT L-COMBINATION FOR EASY BENCHES

- This leg-reduced corner combination is for an ergonomic use of the corner element, it requires two EASY benches and the mounting kit.
- Steel parts are durable powder coated.

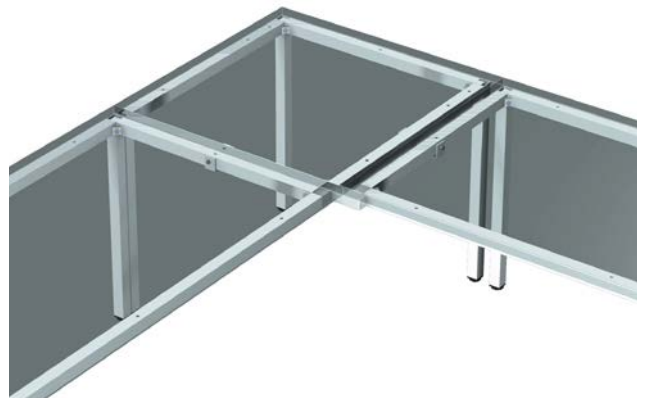
Mounting Kit L-Combination	
191.027.100	anthracite
191.027.500	light grey
191.027.900	RAL Code



MOUNTING KIT CORNER BENCH FOR EASY BENCHES


- This leg-reduced corner combination is for an ergonomic use of the corner, it requires two EASY benches, one squared workbench and the mounting kit.
- Steel parts are with durable powder coating.

Mounting Kit for Combinations with Corner Bench	
191.028.100	anthracite
191.028.500	light grey
191.028.900	RAL Code



EASY PC CORNER BENCH

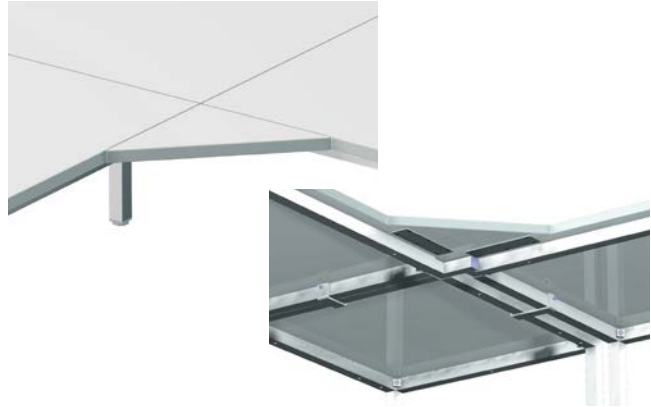
- Special bench frame for a stable corner combination.
- Incl. corner leg and two recessed bench legs with height adjusters.
- Durable 30mm thick bench top with 3mm PP plastic edge, tailored front edge to enable ergonomic use of the corner.
- Steel parts with durable powder coating.
- Front edge: 580mm (bench depth: 800), 440mm (bench depth: 900), 300mm (bench depth: 1000).
- Rear edges: 1213 x 1213mm.

EASY PC Corner Bench 1 BB . 500. F 00	
BB Width	F Color (Bench Top / Base)
10 800mm	5 light grey / light grey
11 900mm	7 light grey / anthracite
12 1000mm	8 Wood Decor (beech / maple) / Base in RAL Code
ESD 	9 light grey or white / Base in RAL Code
07 800mm	
27 900mm	
17 1000mm	




TRIANGLE ELEMENT FOR EASY CORNER COMBINATION

- The triangle element is an option for corner benches or L-combinations, so the corner can be ergonomically used as workspace.
- Made of 30mm thick bench top with PP plastic edge and connecting plates to the adjoining benches.
- Front edge: 500mm, side length: 350mm.



Triangle Element for EASY Corner Combinations

		ESD	
light grey	191.029.500	191.030.500	
white	191.029.800	191.030.800	

EASY BENCH LEG FOR LEG-FREE BENCH ROWS

- For more ergonomic bench rows the middle bench optionally can be a leg-free variant supported by an extra EASY leg in recessed position.
- For the connection of two bench frames, span with: 85mm, steel parts durable powder coated.
- Height: 710mm for a total bench height of 780mm.

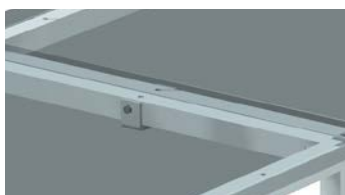
EASY Bench Leg for Leg-Free Bench Rows

		ESD	
anthracite	191.022.100	191.023.100	
light grey	191.022.500	191.023.500	
RAL Code	191.022.900	191.023.900	



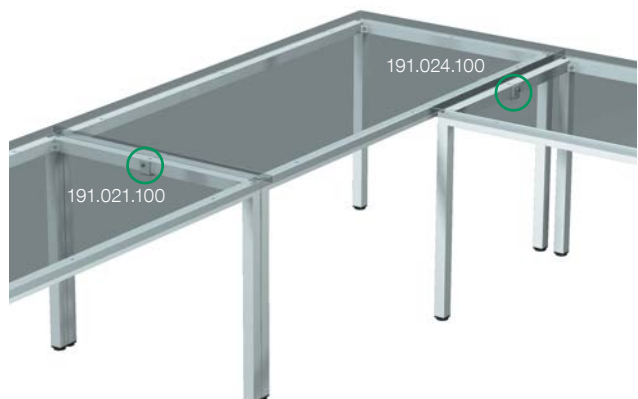
EASY BENCH CONNECTOR

- Nickel-plated clamp with fixing screw.
- For the connection of two EASY bench frames.



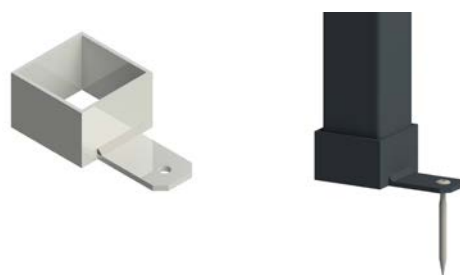
EASY Bench Connector

191.021.100	Span Width: 85mm
191.024.100	Span Width: 130mm



FLOOR FIXATION FOR EASY BENCH

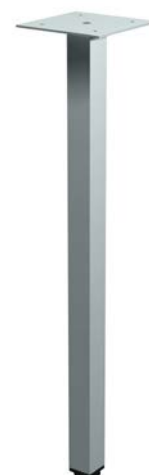
- The EASY benches can be anchored to the floor.
- Durable powder coated tubular steel with lug and floor dowel.



EASY Floor Fixation	
191.011.100	anthracite
191.011.500	light grey
191.011.900	RAL Code

EASY BENCH LEG WITH MOUNTING PLATE

- Tubular steel 40 x 40mm with height adjuster and mounting plate.
- The bench leg is for the variable positioning under different types of bench top elements.
- Height: 750mm (for standard bench height: 790mm).



EASY Bench Leg with Mounting Plate	
123.000.100	anthracite
123.000.500	light grey
123.000.900	RAL Code

EASY H-LEG FOR MECHANICAL WORKBENCH

- Welded H-shaped double bench leg, made of 40 x 40 x 2mm tubular steel with massive fixing plate.
- Incl. assembly set and height adjusters.
- Sheet steel parts durable powder coated.
- Height: 750mm (for a total height of 780mm).



EASY H-Leg for Mechanical Workbench		123.0	TT	F	00
TT	Depth	F	Color		
20	620mm	1	anthracite		
10	750mm	5	light grey		
		7	RAL Code		

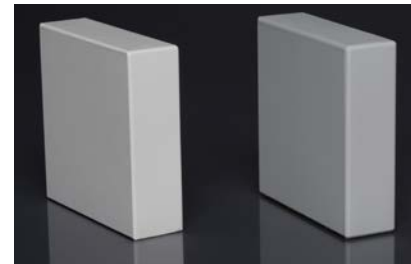
DIRECTLY COVERED BENCH TOPS


- Melamine resin covered 3-layer chipboard.
- All sides with durable PP plastic edge.
- Customized dimensions.

ESD Version:



- Surface- and volume conductive 3-layer chipboard according to DIN-EN 61340-5-1.



Directly Covered Bench Tops 10 A .0 ST . F 00				
A	Version	ST	Thickness	F Color
1	Standard	08	8mm	5 light grey
8	ESD 	19	19mm	8 white
		25	25mm	9 beech / maple (not in ESD)
		00	28mm	

HARDLAMINATED BENCH TOPS


- 3-layer chipboard with hardwearing HPL surface (multilayer chipboard according to DIN EN ISO 13894-1. Upper side with 0,8mm HPL layer according to DIN EN 438-2).
- All sides with 3mm PP plastic edge.
- Thickness: 30mm.

ESD Version:



- Surface- and volume conductive 3-layer chipboard according to DIN-EN 61340-5-1.



Hardlaminated Bench Tops 10 A .000. F 00				
A	Version	F	Color	
0	Standard	5	light grey	
7	ESD 	8	white	
		9	beech / maple (not in ESD)	

MECHANICAL WORKTOPS

- Massive beech tops, either multiplex or solid timber.
- Multiple sanded and laquered or oiled.
- Camfered edges.



Mechanical Worktops 10 A .0 ST .000				
A	Type	ST	Thickness	
4	Multiplex	20	20mm (only multiplex)	
5	Solid Timber	30	30mm	
		40	40mm	
		50	50mm (only solid timber)	


BENCH TOPS WITH BEVELLED FRONT EDGES

- Hardlaminated light grey bench tops with bevelled front edge (70mm drop edge covering the frame) or PROFIttec edge (impact proofed detachable edge made of solid black plastics with 10mm radius).
- Other sides with 3mm PP plastic edge.
- Customized dimensions (max. 3600 x 1100mm).
- Thickness: 30mm.

ESD Version:

- Light grey 30mm thick melamine resin covered chip-board, sides with 3mm PP plastic edge.
- ESD version volume and surface conductive according to DIN EN61340.



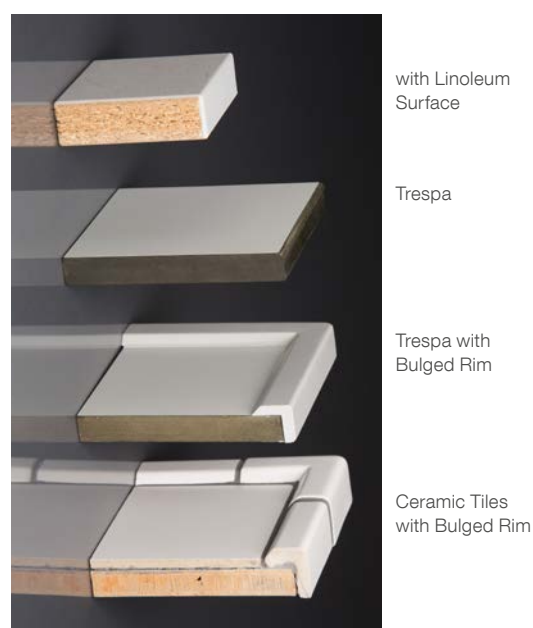
Bench Tops with Bevelled Front Edges 10 A 0 V 0.500	
A Type	V Version
0 Standard	1 PROFIttec
7 ESD 	2 P26 Edge
	4 70mm drop edge



SPECIAL TOPS

- Bench top with affixed covering and 3mm PP plastic edge.
- Tiled worktop, support plate with white ceramic tiles or red-brown fine stoneware tiles, optionally with bulged rim.
- Trespa bench top (extremely hardwearing plate with solid hard core in black and light grey surface. Optional with epoxy bulged rim 20/27mm).
- Stainless steel top with V100 chipboard and optional with bulged rim.

Special Tops	
103.000.000	Bench Top with Linoleum Surface
103.100.000	Bench Top with surfaced with 2mm ESD Mat
109.000.000	Worktop with white Ceramic Tiles
109.100.000	Worktop with red-brown Stoneware Tiles
106.000.000	Trespa Bench Top, no Bulged Rim
106.100.000	Trespa Bench Top, with Bulged Rim
108.000.000	Stainless Steel Top, no Sink
108.100.000	Stainless Steel Top, with Sink



THE MECHANICAL WORKBENCH DEFYS ANY IMPACT

The surrounding tubular steel frame with extra H-stiffener offers extraordinary stability even for rough mechanical works. The workbench can be equipped with vise, sheet steel container and many accessory to make sure you have everything in perfect reach.



EASY MECHANICAL WORKBENCH

- Highly stable and durable powder coated bench frame with extra H-stiffener made of 40 x 40mm tubular steel.
- 40mm thick solid wooden bench top. Multiple oiled or laquered.
- Height: 790mm, depth: 700mm.

Beech
MultiplexSolid Timber
Beech

Mechanical Workbench with Beech Top			11	A	1	B	0	F	00
A Type		B Width		F Color					
4	Multiplex	2	1200mm	1	anthracite				
5	Solid Timber	5	1500mm	5	light grey				
		8	1800mm	9	RAL Code				

SHELF BOARD FOR MECHANICAL WORKBENCH

- Prepared for the assembly on the H-stiffener of the mechanical workbench.
- 20mm thick beech multiplex shelf, oiled.
- Depth: 400mm.

Shelf Board for Mechanical Workbench	
190.051.000	Width: 1200mm
190.052.000	Width: 1500mm
190.053.000	Width: 1800mm



RAISED EDGE FOR MECHANICAL WORKBENCH

- Mounted at the rear and / or side of the mechanical worktop.
- 19mm thick beech multiplex, oiled.
- Height: 70mm.

Raised Edge per Meter	190.050.000
-----------------------	-------------



OPTION **MECHANICAL HEIGHT ADJUSTMENT** FOR EASY BENCH

- Adjustable bench height 740 - 960mm.
- Bench legs, made of stable tube-in-tube solution with bolt fixation.
- Outer tube diameter 40 x 40mm with 20mm hole raster.
- With metallic leveling screws.
- Steel parts with durable powder coating.

Mechanical Height Adjustment	
191.092.100	anthracite
191.092.500	light grey
191.092.900	RAL Code



OPTION **HYDRAULIC HEIGHT ADJUSTMENT** FOR EASY BENCH

- Bench legs with four hydraulic cylinders and under the bench top installed hydraulic pump.
- Operated by hand crank or electrically.
- Height adjustable between 750 - 1150mm (hand crank: 400mm / electric lift: 380mm).
- Total load capacity: 3500N.
- Synchronized with 4-chamber hydraulic pump.
- The up / down button of the electric drive is ergonomically positioned at the front edge of the bench.
- The hand crank version is with ergonomically down-foldable crank.



Option Hydraulic Height Adjustment		
191.061.500	Hand Crank	5mm/U
191.062.500	Electric Lift	15mm/s

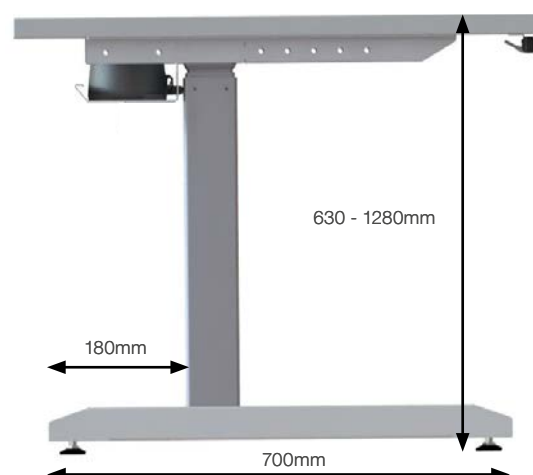
EASY C-LIFT BASE, NO BENCH TOP

Height adjustable bench base (630mm - 1280mm) consisting of:

- Two telescopic lifts with silent running spindle drive, durable white aluminium powder coated. Leg diameter: 50 x 80mm. Lifting height 650mm; max. lifting force: 2 x 800N, max. lifting speed: 38mm/s.
- Fully synchronized control unit installed under the bench top with hidden cable run between operating unit and lifts. Anticollision function (programmed switch-off force in case of collision, with stop and reverse function).
- Operating unit with memory function (3 programmable heights) with digital height indication is mounted at the right front edge of the bench.
- Nicely shaped sheet steel base with leveling screws, durable powder coated according to RAL Code. Depth: 700mm.
- Middle section made of sheet steel, mounted as stiffener between the lifts. Durable powder coated according to RAL Code.
- Stabil H-frame made of sheet steel with integrated rear sided cable tray (D: 160mm; H: 95mm). Durable dissipative powder coated in light grey.
- Completely installed.

Note: Please choose bench top on page 119 / 120

max. recommended bench depth: 900mm



EASY C-Lift Base		193. BB 0.000	
BB Width			
05	500mm	10	1000mm
08	800mm	12	1200mm
		16	1600mm
		18	1800mm

OPTION LIFTING CASTERS FOR EASY BENCH

- Mechanic lifting mechanism for EASY bench.
- Two height adaptable tubular steel frames with synchron shaft and eccentric lever.
- 75mm steering casters with brakes.

Option Lifting Casters		193.BB T .900	
BB Width		T Depth	
06	600mm	13	1260mm
08	800mm	14	1485mm
09	900mm	15	1500mm
10	1000mm	16	1600mm
12	1200mm	18	1800mm
6	600mm	8	800mm
		9	900mm
		1	1000mm



RELIABLE STABILITY WITH EASY BENCH TOP MOUNTINGS

The EASY bench top frame and all EASY shelf racks fit ideally to each EASY bench and mechanical workbench, the connection is solid screw fixing. You would like to combine those elements to an existing bench? Not a hera product? - No problem!



EASY BENCH TOP FRAME

- Two side parts with two cross braces made of 30 x 30mm tubular steel, prepared for the acceptance of a shelf and panelling.
- Durable powder coated steel parts.
- Dimensions 295 x 355mm (DxH).

EASY Bench Top Frame 198.BBB.F 00

BBB Width	F Color
080 800mm 148 1485mm	1 anthracite
090 900mm 153 1500mm	5 light grey
100 1000mm 160 1600mm	9 RAL Code
120 1200mm 180 1800mm	
126 1260mm 200 2000mm	



EASY BENCH TOP FRAME, HEIGHT ADJUSTABLE

- Two side parts, height adjustable due to tube-in-tube system with 20mm raster for locking bolts.
- Two cross braces made of 30 x 30mm tubular steel.
- Durable powder coated steel parts.
- Dimensions 295 x 355-605mm (DxH).

EASY Bench Top Frame, height adjustable 198.BBB.F 00

BBB Width	F Color
082 800mm 150 1485mm	1 anthracite
092 900mm 152 1500mm	5 light grey
102 1000mm 162 1600mm	9 RAL Code
122 1200mm 182 1800mm	
128 1260mm 202 2000mm	



EASY BENCH TOP FRAME, PANELED

- Two side parts with two cross braces made of 30 x 30mm tubular steel, prepared for the acceptance of a shelf and panelling.
- Incorporated rear - and side panels made of 19mm melamine resin covered chipboard.
- Durable powder coated steel parts.
- Dimensions 295 x 355mm (DxH).

EASY Bench Top Frame, Paneled 198.BBB.F 00

BBB Width	F Color
081 800mm 149 1485mm	5 light grey / light grey
091 900mm 151 1500mm	7 light grey / anthracite
101 1000mm 161 1600mm	9 white / RAL Code
121 1200mm 181 1800mm	
127 1260mm 201 2000mm	



SHELF FOR EASY BENCH TOP FRAME

- Melamine resin covered shelf, 28mm thick.
- All sides with 3mm PP plastic edge.
- Depth: 340mm.

ESD Version:



- Surface - and volume conductive 3-layer chipboard according to DIN-EN 61340-5-1.



Shelf for EASY Bench Top Frame

199.BBB.F 00

BBB Standard

080	800mm	148	1485mm
090	900mm	150	1500mm
100	1000mm	160	1600mm
120	1200mm	180	1800mm
126	1260mm	200	2000mm

BBB ESD

081	800mm	149	1485mm
091	900mm	151	1500mm
101	1000mm	161	1600mm
121	1200mm	181	1800mm
127	1260mm	201	2000mm

F Color

5	light grey
8	white
9	beech / maple (not ESD)

EASY SHELVING RACK

modular configuration consisting of:

- L-shaped base made of sheet steel, durable conductive powder coated in light grey. Slotted hole raster (40mm raster) for shelf supports, with fixing holes for the installation on the bench top. Dimensions: 40 x 300 x 800mm (WxDxH).
- Perforated backplane, installed between the L-shaped bases and for the acceptance of tool holders, bin supports, socket strips, etc.
- The cantilevers for the shelves are durable conductive powder coated in light grey with cross stiffening and fixing holes for the assembly of the shelf. Dimensions: 30 x 280mm (WxD).
- Light grey shelf made of 28mm thick melamine resin covered chipboard. Edges with 3mm PP plastic edge and incorporated stop edge (height: 6mm). Depth: 340mm.



ESD Version:

- Surface - and volume conductive 3-layer chipboard according to DIN-EN 61340-5-1.



EASY Shelving Rack

Width

800mm	198.080.505
1000mm	198.100.505
1260mm	198.126.505
1485mm	198.148.505
1600mm	198.160.505
1800mm	198.180.505
2000mm	198.200.505

Cantilevers for Shelf

198.080.510
198.100.510
198.126.510
198.148.510
198.160.510
198.180.510
198.200.510

Shelf with Stop Edge

Standard	ESD
199.080.510	199.081.510 
199.100.510	199.101.510
199.126.510	199.127.510
199.148.510	199.149.510
199.160.510	199.161.510
199.180.510	199.181.510
199.200.510	199.201.510

EASY SHELF RACK WITH TILTED FRONT

- Tilted front, identical to LS2000 instrument racks.
- Body made of 19mm thick melamine resin covered chipboard.
- Depth: 300/385mm, height: 468mm.
- Each shelf compartment with 1x height adjustable shelf board.



EASY Shelf Rack with Tilted Front 215.BBB.F 00

BBB Width

080	800mm	120	1200mm	160	1600mm
090	900mm	126	1260mm	180	1800mm
100	1000mm	148	1485mm	200	2000mm

F Color

5	light grey
8	white
9	beech / maple

EASY SHELF RACK WITH STRAIGHT FRONT

- Body made of 19mm melamine resin covered chipboard.
- Depth: 300mm, height: 470mm.
- Each shelf compartment with 1x height adjustable shelfboard.



EASY Shelf Rack with Straight Front 215.BBB.F 00

BBB Width

081	800mm	121	1200mm	161	1600mm
091	900mm	127	1260mm	181	1800mm
101	1000mm	149	1485mm	201	2000mm

F Color

5	light grey
7	white
8	beech / maple

EASY SHELF RACK WITH LAMP

- Tilted front for the assembly to a LS2000 instrument rack or bench top frame.
- Body made of 19mm thick melamine resin covered chipboard.
- Depth: 500/300mm, height 470mm.
- Each shelf compartment with 1x height adjustable shelf board.
- Upper panel with integrated fluorescent lamp, 36W and switch.



EASY Shelf Rack with Lamp 215.BBB.F 00

BBB Width

082	800mm	122	1200mm	162	1600mm
092	900mm	128	1260mm	182	1800mm
102	1000mm	150	1485mm	202	2000mm

F Color

5	light grey
8	white
9	beech / maple

EASY ADAPTION TO INDIVIDUAL TEACHING CONCEPTS

The EASY program holds a variety of products especially for the efficient configurations of educational laboratories. No matter if you prefer single -, double - or team workstations. Special installation cabins are available for practical trainings in industrial - or domestic wirings. For the respective training sets, please see our catalogue for technical training systems.



EASY SUPPORT FOR TRAINING SYSTEM FRAME, TILTED

- Bench top frame made of two L-Braces 40 x 40mm, tilted by 15°.
- Prepared for 1 level training system frame or installation wall (not included, please choose separately!).
- Durable powder coating.
- Depth: 285mm, height: 370mm.

EASY Support, Tilted	
170.001.801	1 Level, no Handle
170.001.851	1 Level, with Handle



EASY L-SUPPORT FOR TRAINING SYSTEM FRAME

- Two L-Braces made of 40 x 40mm tubular steel and fixing screw. The training system frame can be removed from the bench top.
- Prepared for training system frame or installation wall (not included, please choose separately!).
- Durable powder coating.
- Depth: 295mm.

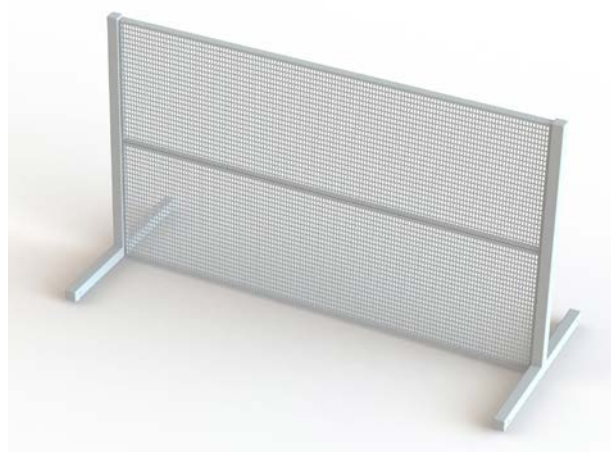
EASY L- Support for Training System Frame	
170.001.901	1 Level H: 360mm
170.002.901	2 Levels H: 680mm
170.003.901	3 Levels H: 1000mm



EASY T-SUPPORT FOR TRAINING SYSTEM FRAME

- Two T-Braces made of 40 x 40mm tubular steel, lower side with rubber feed for the flexible use on bench tops.
- Prepared for training system frame or installation wall (not included, please choose separately!).
- Durable powder coating.
- Depth: 300mm. ining system frame not included.
- Training system frame not included.

EASY T-Support for Training System Frame	
171.001.900	1 Level H: 360mm
171.002.900	2 Levels H: 680mm
171.003.900	3 Levels H: 1000mm



TRAINING SYSTEM FRAME

- H-Profile in DIN A4 height to hang up training panels in standard size. Durable light grey powder coated.
- Lower side with incorporated brush strip for clatter-free use.
- Front - and rear side with slots for sliding nuts.
- With side parts, prepared for the assembly to the EASY training system frame.
- Suitable for all type of hera supports.
- Dimensions: 26 x 37mm (DxH).

V-slot for tight fitting to training systems



incorporate brush for clatter-free utilization



Training System Frame

461. **BB** **H** .90 **O**

BB Width

05	500mm	09	900mm	13	1295mm	18	1800mm
06	603mm	10	1000mm	15	1500mm	20	2000mm
08	800mm	12	1200mm	16	1600mm	23	2303mm

H Height

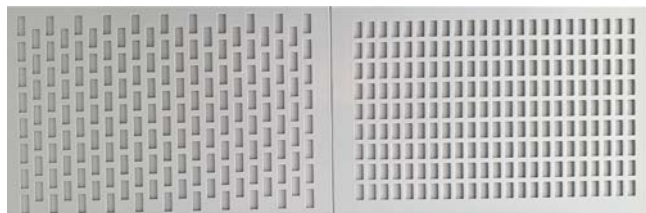
1	360mm
2	680mm
3	1000mm

O H-Profile

0	aluminium anodized
2	powder coated

INSTALLATION WALL, FIRMLY MOUNTED

- Sheet steel with 1,5mm bending for surrounding reinforcement and durable light grey powder coating.
- Raster dimensions are 12x5 (hera specific) or 10x5mm (universally for hera and other brands in suitable raster).



hera-Raster (5 x 12mm)

E-Raster (5 x 10mm)



hera-grid

Installation Walls, firmly mounted

461. **BB** **H** .10 **R**

BB Width

05	500mm	09	900mm	13	1295mm	18	1800mm
06	603mm	10	1000mm	15	1500mm	20	2000mm
08	800mm	12	1200mm	16	1600mm	23	2303mm

H Height

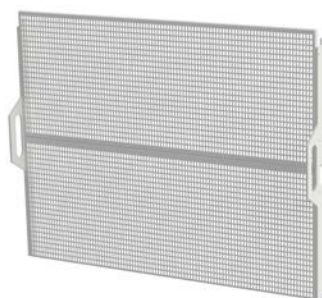
1	360mm
2	680mm
3	1000mm

R

0	hera-Raster
1	E-Raster

INSTALLATION WALL FOR TRAINING BOXES

- The installation wall is prepared for the acceptance in training system frames. It is used for practical trainings with training boxes or surfacemount installation material with dowel-fixation.
- Made of 1,5mm sheet steel with surrounding reinforcement. Durable light grey powder coated.
- 2 level version with handles for comfortable use.



Installation Wall for Training System Frame 461. **BB** **E** .10 **R**

BB Width	E Level	R Grid
06 600mm	1 1 Level	3 hera Grid 12 x 5mm
08 800mm	2 2 Levels	4 E-Grid 10 x 5mm



Installation Wall for 1 level and 2 levels

WOODEN INSTALLATION PANEL FOR TRAINING SYSTEM FRAME

- 19mm plywood.
- Incl. brackets and fixing screw for training system frame.

Wooden Installation Panel 461. **BB** **E** .800

BB Width	E Level
08 800mm	2 2 levels (H: 680mm)
12 1200mm	3 3 levels (H: 1000mm)



INSTALLATION DOWEL FOR INSTALLATION WALL

- 100pcs. dowels for installation wall.
- incl. panhead screw.
- Length: 9,5mm.



Set of Installation Dowels

301.150.100



INSTALLATION CABIN

- The installation cabin offers a most realistic training environment for domestic or industrial installations.
- The frame is made of anodized aluminium profile with incorporated installation walls. The cabin is ready to accommodate a modular equipped media channel.
- Durable, light grey powder coating.
- Dimensions: 1200 x 1000 x 2000mm (WxDxH).

Other dimensions on demand!



Installation Cabin

461.600.000



TFT CHEST

- Electric driven retractable VESA monitor support max. 24" and 80mm depth.
- Storing room for keyboard and mouse.
- Controlled by wired remote control.
- Body made of light grey 19mm melamine resin covered chipboard with service flap and cable access for the connection between computer and monitor.
- The chest is with self-opening and -closing lid, optionally with electric lock.
- Dimensions: 170 x 780mm (DxH).

TFT Chest

425.900.200	double (width: 1800 or 2000)
425.900.210	single (width: 900 or 1000)
425.900.290	Option Electric Lock

Theory - and Computer Bench

- fast and silent operating monitor lifts
- optional with electric lock for theft protection





CHAPTER 5: FLEX WORKSHOP SYSTEM

- | | | | |
|------------|---|------------|--|
| 136 | Base for Height Adjustable Workshop Bench | 150 | FIFO Shelf |
| 138 | Base for C-Lift Workshop Bench | 152 | Perforated Backplane |
| 139 | Option Mobile Workshop Bench | 153 | Bin Bar |
| 141 | Base for EASY Workbench | 154 | Overhead Frame |
| 142 | Bench Top | 155 | Overhead Lamp and Multifunctional Lamp |
| 143 | Foot Rest | 156 | Swivel Arm |
| 144 | PC Support and Bench Enlargement | 158 | Bottle Holder, Tool Holder and Turntable |
| 145 | FLEX Upright Sections | 160 | Transfer System |
| 146 | Backplane for Socket Strip | 161 | Heavy Duty Roller and Roller Strip |
| 147 | Shelf and Swivel Shelf | 162 | Stopper and Ball Roller |
| 148 | FIFO Swivel Shelf and Functional Shelf | | |

BASE FOR FLEX WORKSHOP BENCH

- Solid cantilever base, manually height adjustable between 690 - 1150mm in 20mm raster.
- Two cantilever legs made of sheet steel with metal levelling feet.
- Surrounding bench frame made of tubular steel. Rear side prepared for the acceptance of the cross brace.



ESD Version:



- Sheet steel parts with durable conductive powder coating in light grey.



Base for FLEX Workshop Bench

116 . **BB** **T** .00 **V**

BB Width

08	800mm	12	1200mm	16	1600mm
09	900mm	13	1295mm	18	1800mm
10	1000mm	15	1500mm	20	2000mm

T Depth

6	600mm
7	700mm
8	800mm

V Version

0	manual height adjustment
5	for hydraulic height adjustment

FLEX CROSS BRACE

- Rear sided brace for a stable 2-point-connection of the FLEX Upright Sections, also serves as cable tray.
- With keyhole perforation for the flexible fixation of a foot rest and a PC support.
- Made of sheet steel with durable conductive powder coating in light grey.
- Dimensions: 140 x 70mm (HxD).



FLEX Cross Brace

116. **BB** 0.010

BB Width

08	800mm	12	1200mm	16	1600mm
09	900mm	13	1295mm	18	1800mm
10	1000mm	15	1500mm	20	2000mm

CONTINUOUS FOOTREST FOR FLEX WORKSHOP BENCH



- For the height- and tilt-variable assembly to the sheet steel legs.
- Made of sheet steel with durable conductive powder coating in light grey.
- Depth: 300mm.

Continous Footrest				116. BB 0.050	
BB Width					
08	800mm	12	1200mm	16	1600mm
09	900mm	13	1295mm	18	1800mm
10	1000mm	15	1500mm	20	2000mm



OPTION HYDRAULIC LIFTS FOR FLEX WORKSHOP BENCHES

- For this option, the C-shaped base of the FLEX bench is replaced by two hydraulic lifts. Those lifts are available either for hand crank or electric operation.
- Height adjustment between 750 - 1150mm (lifting height hand crank: 400mm / electric: 380mm).
- Lifting force: 3000N.
- Two anodized aluminium legs with slots, parallel guidance and integrated lifting cylinder.
- Central 2-chamber hydraulic pump for synchron operation, installed under the bench top.
- Complete set of hoses installed in the bench legs.
- Up - and down button for the electric version are ergonomically installed at the front.
- The hand crank for the manual version can be folded under the bench top.

Option Hydraulic Lifts for FLEX Workshop Bench		
191.065.500	Hand Crank	5mm/U Lifting Speed
191.066.500	Electric	15mm/s Lifting Speed



Sitting Height



Standing Height

OPTION C-LIFT BASE FOR FLEX BENCH

- Height adjustable between 700 - 1150mm (stroke: 450mm), from floor to upper side of bench frame (without bench top).
- Heavy duty lifts made of anodized aluminium profile with spindle drive. Profile dimensions: 60 x 240mm.
- With 6 surrounding T-slots for the acceptance of various accessory (e.g. PC support, etc.).
- Fully synchronized and hiddenly mounted under the bench top with invisible cable run between control unit, control box and lifts. Variably programmable end positions and anti-collision function (programmable shut-off force, in case of collision with stop and reverse function).
- Surrounding bench frame made of tubular steel. Rear side with cross brace for a solid 2-point-fixation of the FLEX Upright Sections. The cross brace can also serve as cable tray (dimensions: 140 x 70mm).
- Nicely shaped cantilever base with leveling screws.
- All steel parts are durable conductive powder coated in light grey.
- Please choose the bench top separately!



Option C-Lift Base for FLEX Bench

1 TT BBB.720

TT Depth	BBB Width			Lifts	Force	Speed
06 550mm	060 600mm	126 1260 mm	160 1600mm	410.003.160	2x 800N	max. 18mm/s
10 750mm	080 800mm	129 1295mm	180 1800mm	410.003.320	2x 2000N	max. 9mm/s
11 850mm	090 900mm	148 1485mm	200 2000mm	410.003.321	2x 2000N	max. 18mm/s
12 950mm	100 1000mm	150 1500mm	230 2303mm	410.003.640	2x 3200N	max. 9mm/s
	120 1200mm					



Sitting Height



Standing Height

MOBILE C-LIFT BASE FOR FLEX WORKSHOP BENCH

For mobile C-lift bench please choose C-lift base from previous page and select from following options:

- Lifts with reduced lifting height of 350mm.
- Set of 100mm steering casters (2x position lock, 2x brake).
- Load capacity: max. 300kg.
- Bench height: 730mm - 1080mm.

Option Mobile C-Lift Bench (E: 7=Standard / 8=ESD)

410.003.16E	Stroke: 350mm / 2x 800N / 18mm/s
410.003.32E	Stroke: 350mm / 2x 2000N / 9mm/s
410.003.33E	Stroke: 350mm / 2x 2000N / 18mm/s
410.003.00E	Lift Shells without Lifting Mechanism



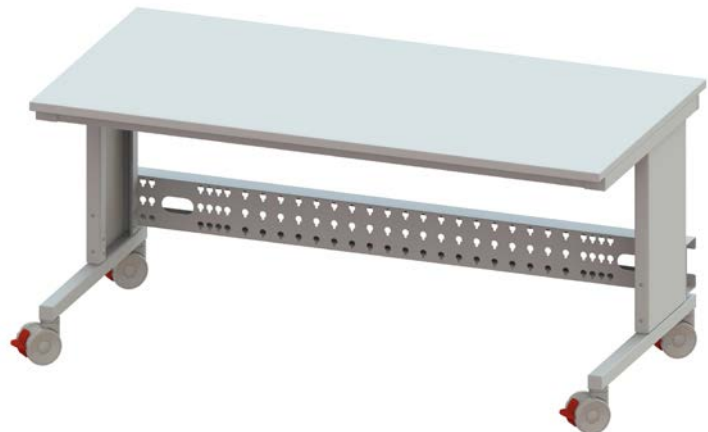
OPTION CASTERS FOR FLEX WORKSHOP BENCH (WITHOUT LIFTS)

The option „with casters“ for all FLEX workbenches with manual height adjustment consists of:

- Cantilever base with short bench legs to maintain the standard bench height of 780mm.
- Set of twin casters DESIGN (100mm), two with brakes and two with position lock.
- Load capacity: max. 300kg.

Option Casters for FLEX Workshop Bench

191.070.000	Standard
191.070.500	ESD



THE COMBINATION OF **EASY AND FLEX**

The basic elements of the FLEX Workshop System can be combined with the EASY benches or the FLEX benches. With respect to your selection the configuration offers different options e.g. manual or hydraulic height adjustment.



BASE FOR EASY BENCH

- Solid 4-leg base, height: 750mm.
- Closed bench frame made of 40 x 40mm tubular steel.
- Four bench legs made of 40 x 40mm tubular steel with floor leveling screws and torsion-resistant corner joints.
- All steel parts with durable conductive powder coating in light grey.



Base for EASY Bench 1 **TT** . **BBB** .520

TT Depth

06	550mm
10	750mm
11	850mm
12	950mm

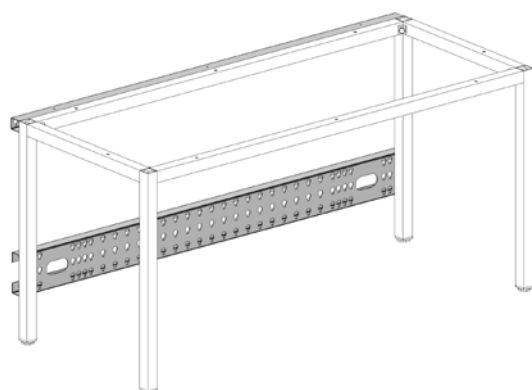
BBB Width

060	600mm	126	1260 mm	160	1600mm
080	800mm	129	1295mm	180	1800mm
090	900mm	148	1485mm	200	2000mm
100	1000mm	150	1500mm	230	2303mm
120	1200mm				

FLEX Cross Brace for EASY Bench 116. **BB** 0.510

BB Width

08	800mm	12	1200mm	16	1600mm
09	900mm	13	1295mm	18	1800mm
10	1000mm	15	1500mm	20	2000mm



MELAMINE RESIN COVERED BENCH TOPS

- Melamine resin covered 3-layer chipboard (no hardlaminated surface!).
- All sides with PP plastic edge.
- Customized dimensions (max. 2700 x 2000mm).

ESD Version:

- Volume - and surface conductive 3-layer chipboard according to DIN-EN 61340-5-1.



Melamine Resin Covered Bench Top 10 **A** .0 **ST** . **F** 00

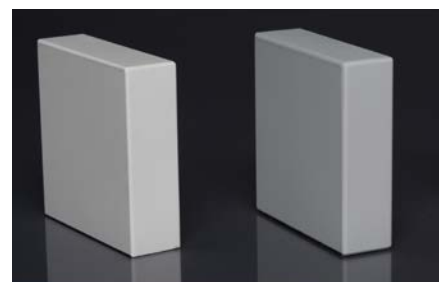
A Version

1	Standard
8	ESD 

ST Thick

08	8mm	5	light grey
19	19mm	8	white
25	25mm	9	maple / beech (not in ESD)
00	28mm		

F Color




white

light grey

HARDWEARING HARDLAMINATED BENCH TOP

- Hardwearing 3-layer chipboard with hardlaminated surface (multilayer chipboard according to DIN EN ISO 13894-1. Upper side with 0,8mm HPL hardlamine according to DIN EN 438-2).
- All sides with 3mm PP plastic edge.
- Thickness: 30mm.

Hardlaminated Bench Top		10	A	.000.	F	00
A	Version	F	Color			
0	Standard	5	light grey			
7	ESD 	8	white			
		9	maple / beech (not in ESD)			

ESD Version:

- Volume - and surface conductive 3-layer chipboard, according to DIN-EN 61340-5-1.



ESD

hardlaminated

directly covered

MECHANICAL BENCH TOPS

- Multiplex - or solid timber tops made of beech.
- Multiple sanded, laquered or oiled.
- All edges chamfered.

Mechanical Bench Tops		10	A	0	ST	.000
A	Version	ST	Thick			
4	Beech Multiplex	20	20mm (only multiplex)			
5	Solid Beech	30	30mm			
		40	40mm			
		50	50mm (only solid beech)			



Solid Beech

Beech Multiplex


BENCH TOPS WITH BEVELLED FRONT EDGE

- Hardlaminated bench tops with bevelled front edges or PROFitec edge (impact proofed and replacable front edge made of solid plastics in 10mm radius).
- All other sides with 3mm PP plastic edge.
- Customized dimensions (max. 3600 x 1100mm).
- Thick: 30mm.
- Color: light grey.

ESD Version:

- Volume - and surface conductive 3-layer chipboard, according to DIN-EN 61340-5-1.



Bench Tops with Bevelled Front Edge		10	A	0	V	0.500
A	Version	V	Front			
0	Standard	1	PROFitec			
7	ESD 	2	P26 Edge			
		4	70mm Drop Edge			



3mm PP plastic edge

P26 edge

PROFitec edge

70mm drop edge

FLEX FOOTREST



- Suspended footrest for attachment to the FLEX cross brace.
- Tilttable in four positions (0° / 9° / 18° / 27°) for ergonomic sitting.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX Footrest		116.3	B	T	.000
B	Width	T Depth			
4	400mm	3	300mm		
5	500mm	4	400mm		
6	600mm	5	500mm		
7	700mm				



FLEX BRACES FOR FOOTREST (PAIR)

- For the height adjustable attachment to the FLEX cross brace.
- Two braces with keyhole perforation in 50mm raster.
- Made of sheet steel, durable conductive powder coated in light grey.
- Dimensions: 70 x 40mm (WxD).

FLEX Braces for Footrest (Pair)			
116.302.000	H: 200mm	116.304.000	H: 400mm
116.303.000	H: 300mm	116.305.000	H: 500mm



FLEX L-SUPPORT FOR FOOTREST (STANDING)

- Two L-braces with metal leveling feet and cross stiffener.
- Height adjustable due to slotted perforation (raster: 50mm).
- Dimensions: 300 x 400mm (DxH).
- Made of sheet steel, durable conductive powder coated in light grey.

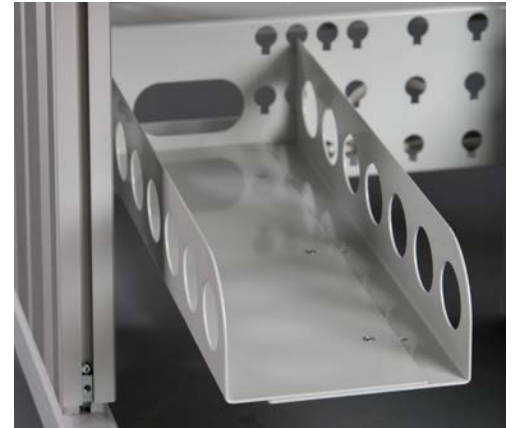
FLEX L-Support for Footrest (Standing)			
116.404.000	W: 400mm	116.406.000	W: 600mm
116.405.000	W: 500mm	116.407.000	W: 700mm



PC SUPPORT FOR FLEX WORKSHOP BENCH



- Suspended PC support for the attachment to the FLEX cross brace.
- Width adjustment: 135 / 160 / 185 / 210 / 235mm.
- Made of sheet steel, durable conductive powder coated in light grey.



PC Support for FLEX Workshop Bench 191.080.000

BENCH ENLARGEMENT, FOLDABLE AND TELESCOPIC

- Solid bench enlargement made of sheet steel with swivel mechanics and telescopic rails for the attachment to the side of the FLEX bench.
- The enlargement can be folded down and fixed with screw handle if not in use.
- 2x telescopic guides, extension length: 600mm.
- Bench top not included.
- Width: 300mm.



Bench Enlargement,
foldable and telescopic 191.090.500

► see page 142 for suitable bench tops



FLEX UPRIGHT SECTION (PAIR)

- Two braces with 3-sided keyhole perforation, raster 50mm for flexible configuration possibilities.
- Made of sheet steel, durable conductive powder coated in light grey.
- Dimensions: 70 x 40mm (WxD).

for rear side assembly to the cross brace:

- total length = height above bench top + 650mm

for bench top assembly in L-form:

- with solid angled brackets, 300mm reach



FLEX Upright Sections for Cross Brace				140.0	HH.000
HH Height above bench top					
03	300mm	08	800mm	12	1200mm
04	400mm	09	900mm	13	1300mm
05	500mm	10	1000mm	14	1400mm
06	600mm	11	1100mm	15	1500mm
07	700mm				

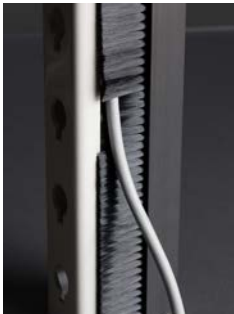
FLEX Brace in L-Form				140.0	HH.500
HH Height above bench top					
03	300mm	08	800mm	12	1200mm
04	400mm	09	900mm	13	1300mm
05	500mm	10	1000mm	14	1400mm
06	600mm	11	1100mm	15	1500mm
07	700mm				



BRUSH STRIP (PAIR)

- For hidden cable runs within the FLEX brace with flexible cable outlet.

Brush Strip (Pair)				140.0	HH.100
HH Height above bench top					
03	300mm	08	800mm	12	1200mm
04	400mm	09	900mm	13	1300mm
05	500mm	10	1000mm	14	1400mm
06	600mm	11	1100mm	15	1500mm
07	700mm				



FLEX BACKPLANE FOR SOCKET STRIP „INDUSTRY“

- Budgetary solution for workbench electrification. Suitable for socket strip „Industry“, type F sockets.
- Mounted between the FLEX upright sections.
- Made of sheet steel, durable conductive powder coated in light grey, with openings for cable access.
- Dimensions: 46 x 76mm (DxH).



Suitable Socket Strip „Industry“, Type F:

- Silver colored plastic housing with black sockets, type F (45° positioned).
- Black power cable (H05VV-F 3G 5W), 2m with angled plug.
- Illuminated 2poles switch, 16A.
- Dimensions: 70 x 45mm (WxH).



FLEX Backplane for Socket Strip „Industry“					141.1 BB.000
BB Width					
05	360mm	10	860mm	16	1460mm
06	460mm	12	1060mm	18	1660mm
08	660mm	13	1155mm	20	1860mm
09	760mm	15	1360mm		

Socket Strip „Industry“, Type F	
293.204.100	4fold with switch (L: 355mm)
293.206.100	6fold with switch (L: 440mm)
293.209.100	9fold with switch (L: 570mm)
293.212.100	12fold with switch (L: 700mm)

FLEX SOCKET STRIP

- Reconnectable socket strip made of durable plastic with mounting flanges at the sides.
- Power cable H05VV-F3G.
- Illuminated 2poles switch, 16A.
- Dimensions: 56 x 41mm (WxH).
- Type F (others on demand).



FLEX Socket Strip, Type F			
293.630.000	3fold (L:185) white no Cable	293.660.000	6fold (L:340) white no Cable
293.630.001	3fold (L:185) black no Cable	293.660.100	6fold (L:340) white with 1,5m Cable
293.630.100	3fold (L:185) white with 1,5m Cable	293.660.101	6fold (L:340) black with 1,5m Cable
293.630.101	3fold (L:185) black with 1,5m Cable	293.660.300	6fold (L:340) white with 3,0m Cable
293.630.300	3fold (L:185) white with 3,0m Cable	293.660.301	6fold (L:340) black with 3,0m Cable
293.630.301	3fold (L:185) black with 3,0m Cable	293.660.500	6fold (L:340) white with 5,0m Cable
293.630.302	3fold (L:185) red with 3,0m Cable	293.660.501	6fold (L:340) black with 5,0m Cable
293.630.500	3fold (L:185) white with 5,0m Cable	293.661.000	6fold (L:340) white no Cable with Switch
293.630.501	3fold (L:185) black with 5,0m Cable	293.661.100	6fold (L:340) white with 1,5m Cable with Switch
293.640.000	4fold (L:288) white no Cable	293.661.101	6fold (L:340) black with 1,5m Cable with Switch
293.640.100	4fold (L:288) white with 1,5m Cable	293.661.300	6fold (L:340) white with 3,0m Cable with Switch
293.640.101	4fold (L:288) black with 1,5m Cable	293.661.301	6fold (L:340) black with 3,0m Cable with Switch
293.641.000	4fold (L:288) white no Cable with Switch	293.661.500	6fold (L:340) white with 5,0m Cable with Switch
293.641.100	4fold (L:288) white with 1,5m Cable with Switch	293.661.501	6fold (L:340) black with 5,0m Cable with Switch
293.641.101	4fold (L:288) black with 1,5m Cable with Switch		

FLEX SHELF



- Shelf for the flexible assembly to the FLEX upright sections.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX Shelf 140.1 **BB.0** **T 0**

BB Width

T Depth

05	500mm	13	1295mm	3	300mm
06	600mm	15	1500mm	4	400mm
08	800mm	16	1600mm		
09	900mm	18	1800mm		
10	1000mm	20	2000mm		
12	1200mm				



FLEX SWIVEL SHELF



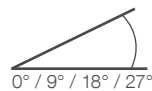
- Swivel shelf for the assembly to the FLEX upright section.
- Front edge with 20mm stop edge.
- Tiltable in four steps (0° / 9° / 18° / 27°).
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX Swivel Shelf 140.2 **BB.0** **T 0**

BB Width

T Depth

05	430mm	13	1225mm	3	300mm
06	530mm	15	1430mm	4	400mm
08	730mm	16	1530mm		
09	830mm	18	1730mm		
10	930mm	20	1930mm		
12	1130mm				



FLEX FIFO SWIVEL SHELF



- Made of sheet steel, durable conductive powder coated in light grey.
- Front edge with 20mm stop edge.
- Lower side with support for stepless adjustable tilt and depth.


FLEX FIFO Swivel Shelf 140.2 BB.5 T 0					
BB Width				T Depth	
05	360mm	13	1155mm	4	400mm
06	460mm	15	1360mm	5	500mm
08	660mm	16	1460mm	6	600mm
09	760mm	18	1660mm		
10	860mm	20	1860mm		
12	1060mm				

FLEX FiFo Shelf Guide 140.460.0 TT					
TT Depth					
04	400mm	05	500mm	06	600mm



FLEX FUNCTIONAL SHELF

- Light grey, 30mm thick, melamine resin covered chipboard, all sides with 3mm PP plastic edge.
- Front - and rear side with sheet steel stop edge, durable light grey powder coated. Optionally front edge with aluminium profile 30 x 30mm for the acceptance of shelf separators.
- Side parts made of 30 x 30mm aluminium profile with slots for sliding nuts.
- Sides with fixing brackets for the fixation to the FLEX upright sections, for a stepless tilt - and depth adjustment.

FLEX Functional Shelf 140.3 BB. E T 0					
BB Width				E Version	T Depth
05	360mm	13	1155mm	4 Standard	3 300mm
06	460mm	15	1360mm	5 ESD 	4 400mm
08	660mm	16	1460mm		5 500mm
09	760mm	18	1660mm		6 600mm
10	860mm	20	1860mm		
12	1060mm				

Accessory for FLEX Functional Shelf	
140.3BB.900	Option Front Edge Aluminium Profile
140.301.0T0	Separator for Aluminium Profile



ONE AFTER ANOTHER

The „First in – First out“ solutions of the FLEX system ensures that first stored prematerials are used up before the later ones. This grants an optimized stock rotation and makes sure, that no material boxes will left behind.



FLEX FIFO BIN FEEDING SYSTEM

The modular FLEX FiFo Bin Feeding System consists of following components:

- Pair of FLEX attachment braces with levelling feet and connecting elements to the upright sections.
- FLEX FiFo bracket for the connection between FLEX attachment braces and FLEX workshop bench.
- FLEX FiFo connecting brace to connect the two FLEX FiFo brackets.
- The storage bins are either positioned on the FLEX FiFo edge guide or the FLEX FiFo roller strip.
- FLEX FiFo stop edge holds the storage bins in place.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX FiFo Attachment Brace 141.400.HH 0

HH Height above bench top

05	500mm	09	900mm	13	1300mm
06	600mm	10	1000mm	14	1400mm
07	700mm	11	1100mm	15	1500mm
08	800mm	12	1200mm		



FLEX FIFO BRACKET

- Part of the modular bin feeding system.
- Pair of (left/ right) brackets for the attachment to the FLEX upright section and the FiFo attachment braces.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX FiFo Brackets 140.400.0 TT

TT Depth

06	600mm	08	800mm	10	1000mm	12	1200mm
----	-------	----	-------	----	--------	----	--------



FLEX FIFO CONNECTING BRACE

- Part of the modular bin feeding system.
- Connecting brace for the assembly to the FiFo brackets with raster holes for the flexible acceptance of FiFo roller strips and FiFo edge guides or FiFo stop edges.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX FiFo Connecting Brace 140.4 BB,000

BB Width

09	760mm	12	1060mm	15	1360mm	18	1660mm
10	860mm	13	1155mm	16	1460mm	20	1860mm



FLEX FIFO STOP EDGE

- Part of the modular bin feeding system.
- For the assembly to the FiFo connecting braces, height: 20mm.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX FiFo Stop Edge		140.4		BB 200	
BB Width					
09	760mm	12	1060mm	15	1360mm
18	1660mm	10	860mm	13	1155mm
16	1460mm	20	1860mm		



FLEX FIFO EDGE GUIDE

- Part of the modular bin feeding system.
- Two edge guides (right/ left) for the assembly to the FiFo connecting braces.
- Made of sheet steel, durable conductive powder coated in light grey.

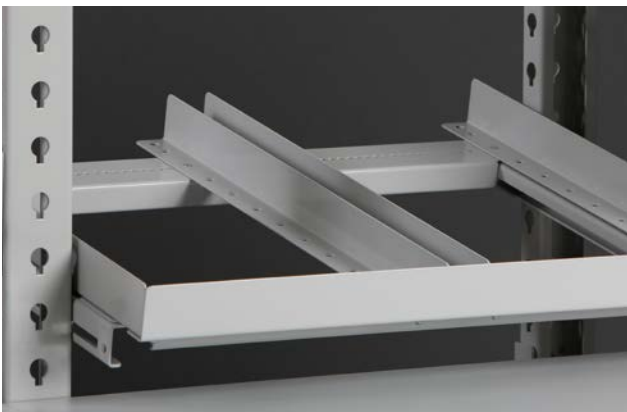
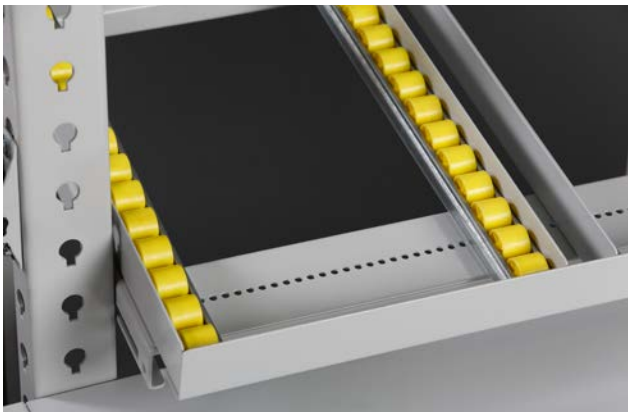
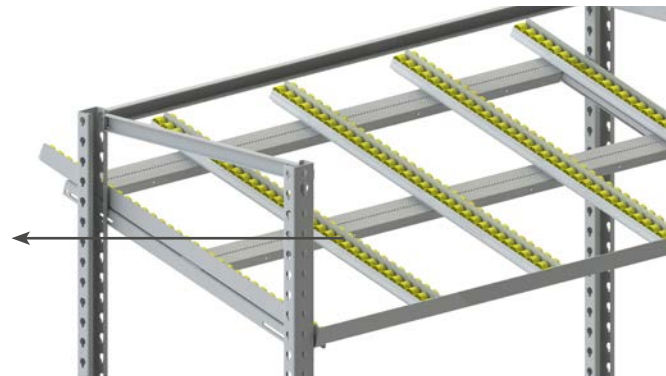
FLEX FiFo Edge Guide		140.460.0		TT	
TT Depth					
06	600mm	10	1000mm	12	1200mm



FLEX FIFO ROLLER STRIP

- Part of the modular bin feeding system.
- Two rails (right/ left) with reasy running plastic rollers (diameter: 25mm) and guiding sheets, for the flexible assembly to the FiFo connecting braces.
- Made of sheet steel, durable conductive powder coated in light grey.

FLEX FiFo Roller Strip		140.450.0		TT	
TT Depth					
10	1000mm	12	1200mm		

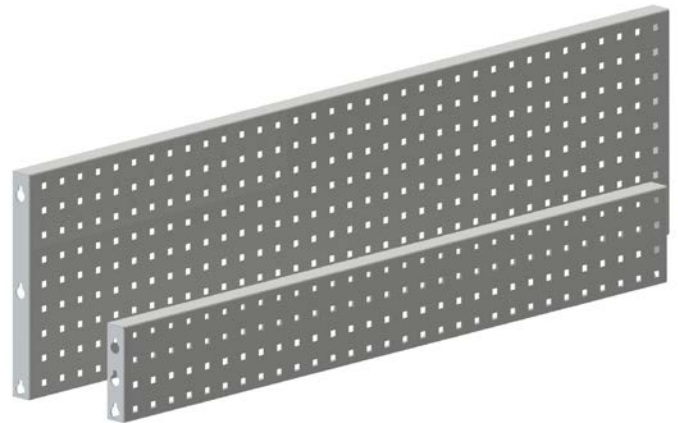


FLEX PERFORATED BACKPLANE



- Perforated panel for the assembly to the FLEX upright sections, prepared for the attachment of tool - or bin holders.
- Squared perforation 10 x 10mm in 38mm raster.
- Made of 1,5mm thick sheet steel, durable conductive powder coated in light grey.

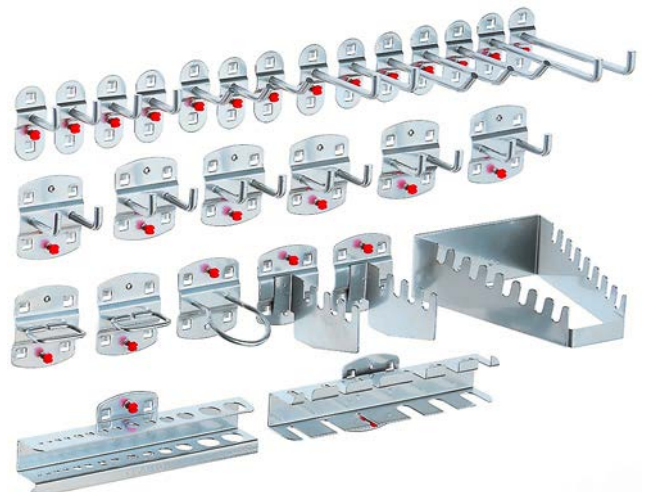
FLEX Perforated Backplane				140.5	BB	.0	T	0
BB Width				T Depth				
05	360mm	13	1155mm	1	150mm			
06	460mm	15	1360mm	3	350mm			
08	660mm	16	1460mm					
09	760mm	18	1660mm					
10	860mm	20	1860mm					
12	1060mm							



TOOL HOLDERS FOR PERFORATED BACKPLANE

- The tool holders are prepared for hooking into the perforated backplane, arrestable by screw.
- Made of aluminium colored steel, durable plastic coating.

Tool Holders for Perforated Backplane	
469.900.010	12pcs.
469.900.020	18pcs.
469.900.030	28pcs.
469.900.040	40pcs.



FLEX BIN BAR

- Bin bar made of double folded sheet steel, prepared for the assembly between two FLEX upright sections.
- Made of 2mm thick sheet steel, durable conductive powder coating in light grey.
- Dimensions: 30 x 60mm (DxH), tiltable (0° / 15° / 30°), both sides equipable.



FLEX Bin Bar		140.6 BB.000			
BB Width					
05	360mm	10	860mm	16	1460mm
06	460mm	12	1060mm	18	1660mm
08	660mm	13	1155mm	20	1860mm
09	760mm	15	1360mm		

STORAGE BINS

- Storage bins made of polyethylene.
- Stackable with label holder.
- Available colors: grey (standard), green, blue, red and yellow.
- Storage bins up to 290mm length can be hooked into storage bins.
- Packing unit 10pcs.

ESD Version:

- Made of special conductive plastics in black (with carbon fibres).
- GGG 010, 030, 050 not available in ESD.




Standard



ESD



Bins		296. GGG . A 01		(PU = 10x)	
GGG Dimensions (WxDxH)				A Version	
010	500x300x250	050	290x140x130	1	Standard
020	500x300x200	075	230x140x130	2	ESD 
030	350x200x200	100	160x105x75		
040	350x200x150	125	85x105x45		

FLEX OVERHEAD FRAME

- Consisting of two stable depth braces prepared for the acceptance of cables and hoses.
- Cross brace made of anodized aluminium profile 30 x 30mm for the acceptance of a tool slider.
- Made of sheet steel, durable conductive powder coated in light grey.
- Height: 75 / 30mm.



FLEX Overhead Frame 140.7 BB.0 T 0				
BB Width			T Depth	
05	500mm	13	1295mm	5 500mm
06	600mm	15	1500mm	6 600mm
08	800mm	16	1600mm	7 700mm
09	900mm	18	1800mm	8 800mm
10	1000mm	20	2000mm	
12	1200mm			



SLIDER WITH SNAP HOOK FOR FLEX OVERHEAD FRAME

- Tools can be hooked to the overhead frame and moved over the whole width of the bench.
- Color: black.
- Width: 60mm, hole diameter: 8mm.



Slider with Snap Hook	459.100.100
-----------------------	-------------

SPRING BALANCER FOR FLEX OVERHEAD FRAME

- Balancers help to organize the workstation and make workings with electric or pneumatic tools more safe and comfortable.
- Adjustable pulling force.
- Pull-out wire rope (max. 1,6m) with snap hook.

Spring Balancer	
459.100.190	0,4 - 1,0kg
459.100.200	1,0 - 2,0kg
459.100.210	2,0 - 3,0kg



FLEX OVERHEAD LAMP LED

- Glarefree overhead lamp with parabolic reflector, made of sheet steel.
- Lamp housing made of white sheet steel 207 x 56mm (DxH).
- Brightness adjustable in 3 steps in lamp housing.
- Color temperature: 4000K (Ra: >80).
- Hidden cable run in overhead frame.

Bench Width: ≤ 1600mm (lamp housing W: 1245mm):

- Power: 51W (adjustable to 35W or 24W).
- Brightness: 7600lm (5600 or 4000lm).

Bench Width: ≥ 1800mm (lamp housing: 1545mm):

- Power: 63W (adjustable 44W or 30W).
- Brightness: 9600lm (7100 or 5100lm).

FLEX Overhead Lamp 140.8 **BB.050**

BB Bench Width

13	1295mm	16	1600mm	20	2000mm
15	1500mm	18	1800mm	23	2303mm



MULTIFUNCTIONAL LAMP LED

- Ergonomic LED lamp made of anodized aluminium.
- Height: 65mm; depth: 45mm.
- Homogeneous and shade-free illumination of the work space due to micro-prism technology.
- Color reproduction: 5.500K (Ra: >85).
- Illumination angle: 100°.
- Optionally with flicker-free dimmer.
- Incl. switch and 3m power cable with PE plug.
- Sides with fixing brackets and tilting function.
- Pictures of the 120V version are differing.



Multifunctional Lamp LED

458.0 **BB . A 01**

BB Lamp Housing

A Type

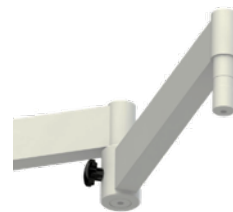
120V Types (5.000K)

05	500mm (13W / 1575lm)	0	Standard	458.100.090	899mm (35W / 974lx)
09	900mm (25W / 3150lm)	1	with Dimmer	458.100.120	1199mm (40W / 1100lx)
12	1200mm (34W / 4410lm)			458.100.150	1499mm (63W / 1422lx)
15	1500mm (39W / 5040lm)				

* distance 100cm in measuring field 100x100cm

PROFI SWIVEL ARM AND SLEEVE

- Hardwearing steel beam with solid sleeve / bolt combination.
- Load capacity: max. 50kg.
- Modular combination of:
 - Sleeve for fixation to extensions or upright sections.
 - Heavy duty swivel arm with bolt, sleeve and fixing screw. Available in different length, with cable holder.
 - Different end pieces with bolts.



PROFI Swivel Arm



PROFI Sleeve

PROFI Swivel Arm and Sleeve

491.002.000	PROFI Sleeve Ø 25mm
491.003.000	PROFI Swivel Arm / reach: 250mm
491.004.000	PROFI Swivel Arm / reach: 300mm
491.005.001	PROFI Swivel Arm / reach: 500mm
491.002.100	Set 1: Sleeve + Swivel Arm / reach: 300mm
491.010.100	Set 2: Sleeve + Swivel Arm / reach: 300 + 250mm

TRAY FOR SWIVEL ARM

- Tilttable tray made of sheet steel with surrounding stop edge.
- Durable conductive powder coating in light grey.
- Bolt (Ø 25mm).

Tray for PROFIL Swivel Arm

491.026.100	300 x 300 x 10mm (WxDxH)
491.026.110	400 x 400 x 10mm (WxDxH)
491.026.120	500 x 500 x 10mm (WxDxH)



TILTABLE TRAY FOR SWIVEL ARM

- Sheet steel tray with bolt for swivel arm acceptance.
- Front and sides with 20mm stop edge. Tilttable in 4 steps (0° / 5° / 10° / 15°).
- Durable conductive powder coating in light grey.
- Bolt (Ø 25mm).

Tilttable Tray for PROFIL Swivel Arm

491.027.110	300 x 250mm (WxD)
491.027.130	450 x 350mm (WxD)
491.027.150	650 x 500mm (WxD)



BIN SUPPORT FOR SWIVEL ARM

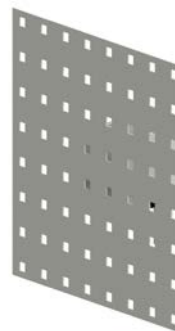
- Supporting rail made of steel for hanging up storage bins.
- Durable powder coating in light grey.
- Bolt (Ø 25mm).



Width	1 Level	3 Levels
300mm	491.022.101	491.022.300
400mm	491.022.111	491.022.310
500mm	491.022.121	491.022.320

BACKPLANE FOR PROFI SWIVEL ARM

- For the acceptance of tool holders, bin bars or shelves.
- Swivelling perforated backplane, made of sheet steel (1,5mm thick) with surrounding reinforcement.
- Durable light grey powder coated.
- Bolt (Ø 25mm).



Backplane for PROFI Swivel Arm

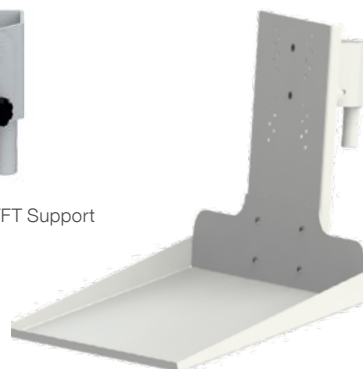
491.024.101	300 x 290mm (WxD)
491.024.111	300 x 130mm (WxD)
491.024.121	550 x 290mm (WxD)
491.024.131	550 x 130mm (WxD)

TFT SUPPORT FOR PROFI SWIVEL ARM

- Very sturdy swivel head (+/- 20°) with 2 fixing screws and bolt (Ø 25mm).
- Adapter plate in VESA standard (100x100mm and 75x75mm).
- Keyboard tray 470 x 220 x 320mm (WxDxH).
- Swivelling mouse pad 200x200mm.
- Durable light grey powder coated.



491.028.101 TFT Support



491.028.111 TFT Support with Keyboard Tray

TFT Support for PROFI Swivel Arm

491.028.101	TFT Support
491.028.111	TFT Support with Keyboard Tray
491.028.121	TFT Support with Keyboard Tray and Mouse Pad



491.028.121 TFT Support with Keyboard Tray and Mouse Pad

NOTEBOOK - AND KEYBOARD TRAY FOR PROFI SWIVEL ARM

- Very sturdy swivel head (+/- 20°) with two fixing screw and bolt (Ø 25mm).
- Tilttable shelf made of sheet steel. Front with bent stop edge.
- Notebook support 400 x 300mm (WxD).
- Keyboard support 470 x 200mm (WxD).
- Durable light grey powder coated.



491.028.320 Notebook Support

491.028.330 Keyboard Support

Notebook - and Keyboard Support for PROFI Swivel Arm

491.028.320	Notebook Support
491.028.330	Keyboard Support

BOTTLE HOLDER

- Two-part holder made of aluminium for bottles with max. 94mm diameter.
- Incl. assembly set for the flexible fixation to the PROFI extensions or FLEX upright section.
- Durable light grey powder coated.
- Dimensions: 117 x 120mm (DxH).

Bottle Holder	
468.200.102	Bottle Holder for 1x Bottle, W: 114mm
468.200.202	Bottle Holder for 2x Bottles, W: 210mm



TOOL HOLDER


- All tools always close at hand.
- The tools are easy to push in or pull out due to flexible plastic lugs.
- Color: black.
- Dimensions: 44 x 35 x 30mm (LxHxD).

Tool Holder	461.912.000
-------------	-------------



TURNTABLE FOR HEAVY PARTS

- Stainless steel disk with ripped rubber surface.
- Load capacity: 180kg.
- Height: 20mm.
- Position lock with pin in 45° raster, free-wheeling mechanism.

Turntable		299.62	A	D	T
A Version	D Diameter	T Type			
0 Standard	3 380mm	0 no Position Lock			
5 ESD 	5 500mm	5 with Position Lock			

ESD Version:

- Conductive rubber surface and earthing cable.



ESD DOCUMENT PROTECTOR DIN A4

- 10x DIN A4 document bags consisting of a black supporting frame with transparent dissipative polyethylene bags.
- Supporting frame made of stainless steel with assembly set for the fixation to the PROFI extensions or FLEX upright sections.

ESD Document Protector DIN A4	468.100.100
-------------------------------	-------------



KEEP THINGS MOVING!

You wish to establish a highly efficient and ergonomically designed production line? - The FLEX transfer systems offer lots of accessory to set-up an individual solution for various applications. The configuration can be adapted later-on with changing demands.



FLEX TRANSFER BASE

- Height: 750mm.
- Closed frame made of 40 x 40mm tubular steel.
- Four legs made of 40 x 40mm tubular steel with leveling feet. The legs are assembled to the frame with easy to install corner joints.
- Durable conductive powder coating in light grey.

FLEX Transfer Base 116. LL B .500					
LL Length			B Width		
06	600mm	16	1600mm	4	400mm
08	800mm	18	1800mm	5	500mm
10	1000mm	20	2000mm	6	600mm
12	1200mm	25	2500mm	7	700mm
14	1400mm	30	3000mm	8	800mm



OPTION HEIGHT ADJUSTMENT

- The legs are made as tube-in-tube system with fixing bolts and leveling feet.
- Height adjustable in the range of 740 - 960mm, in 20mm raster.
- Durable conductive powder coating in light grey.

Option Height Adjustment	191.092.500
--------------------------	-------------



TRANSFER LINE SIDE PARTS

- Prepared for the assembly to the transfer base. für die
- Anodized aluminium profile 30 x 30mm, all sides with profile slots.
- Durable light grey powder coated sheet steel parts with raster holes for heavy duty rollers.
- Height: 100mm.

Transfer Line Side Parts 116. LL 1.000					
LL Length					
06	600mm	14	1400mm	20	2000mm
08	800mm	16	1600mm	25	2500mm
10	1000mm	18	1800mm	30	3000mm
12	1200mm				



TRANSFER LINE STOP-END

- Stop-end for the assembly to the side parts.
- Sheet steel, durable light grey powder coated.
- Height: 100mm.



Transfer Line Stop-End 116.00 **B**.500

B Width

4	400mm	6	600mm	8	800mm
5	500mm	7	700mm		

CYLINDRIC HEAVY DUTY ROLLER

- Roller diameter: 30mm.
- Spring axle with 6mm diameter.



Cylindric Heavy Duty Roller 102.00 **B**.**M** 00

B Width

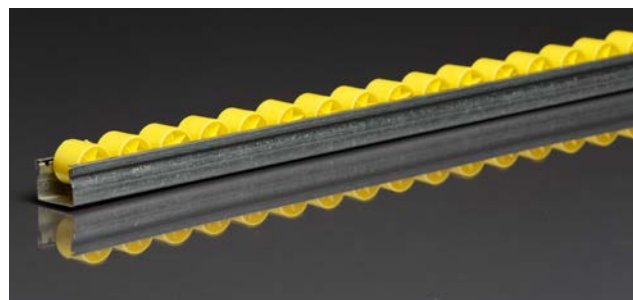
4	400mm	7	700mm
5	500mm	8	800mm
6	600mm		

M Material

2	anodized steel	4	aluminium
3	stainless steel	5	plastics

ROLLER STRIP

- Rollers made of high quality thermoplastic polyurethane.
- Optional with wheel flange.
- Easy roller replacement.
- U-guidance made of anodized sheet steel.
- Roller diameter: 30mm.
- Wheel flange diameter: 44mm.
- Roller width: 25mm.
- Total height: 40mm.
- Load capacity: 12kg.



Roller Strip 102.**LL** 0.**S** **RR**

LL Length

06	600mm	12	1200mm
08	800mm	14	1400mm
10	1000mm		

S Wheel Flange

0	no wheel flange
5	with wheel flange

RR Roller Distance

03	33mm (only without wheel flange)
05	50mm
10	100mm

STOPPER

- Support for the assembly to the side parts with gravity stopping mechanism.
- Sheet steel with durable light grey powder coating.

Stopper 116.00 **B** .700

B Width

4	400mm	6	600mm	8	800mm
5	500mm	7	700mm		



SHEET STEEL BED FOR ROLLER BALLS

- Sheet steel with folded edges and customer specific perforation for roller balls.
- Incl. assembly set for the fixation to the side parts.
- Durable, conductive powder coating in light grey.

Sheet Steel Bed for Roller Balls 116.0 **L** **B** .000

L Length

B Width

4	400mm	7	700mm	4	400mm	7	700mm
5	500mm	8	800mm	5	500mm	8	800mm
6	600mm			6	600mm		



ROLLER BALL

- Large stainless steel ball, easily wheeling on load-bearing balls in sheet steel shell.
- Outer diameter 31mm.
- Ball diameter 15,8mm.
- Dirtprotected due to surrounding sealing.

Roller Ball (pcs.)

102.100.000





CHAPTER 6: MOBILES & CARTS

- | | | | |
|------------|--------------------------------------|------------|---|
| 164 | PROFI Cart | 181 | PROFI Mobile Cord Holder |
| 168 | Base for PROFi Mobile | 182 | Top Shelf, Shelf Box and Mobile Cord Holder LC |
| 169 | Shelf for PROFi Mobile | 184 | EASY Cart |
| 172 | Base for PROFi Mobile ENERGY | 185 | EASY Storage Cart |
| 173 | Shelf for PROFi Mobile ENERGY | 186 | EASY Mobile Cord Holder |
| 174 | Short Container for PROFi Mobile | 188 | Mobile Cabinet, Storage Cart for Training Systems |
| 175 | 19" Rack and Brush Channel | 190 | Base for FLEX Mobile |
| 176 | Keyboard - and Notebook Drawer | 191 | Shelf for FLEX Mobile |
| 177 | Handle and Cable Support | 192 | Accessory for FLEX Mobile |
| 178 | Support for Cable Dispenser | | |
| 180 | Training System Frame and Cable Comb | | |

PROFI CART


- Highly stable frame made of tubular steel, durable light grey powder coated. Sides with sleeves for the flush attachment of the legs.
- Hardwearing, light grey 30mm thick top plate, edges with 3mm PP plastic edge and cutouts for the rear legs.
- Light grey 30mm thick height adjustable bottom shelf.
- Four aluminium legs with 6 surrounding slots, durable powder coated according to RAL Code.
- Four steerable twin-casters (diameter 75mm), two with brake.
- Total height: 780mm.
- Load capacity with standard casters: 150kg.



ESD Version:



- Top and bottom shelf are surface - and volume conductive according to DIN EN 61340 with antistatic 3mm PP plastic edge.
- With ESD twin-casters.


PROFI Cart 44 T .11 B .9 V 1			
T Depth	B Width	V Front Edge	
0 800mm	1 500mm	0 PP Plastic Edge	
1 900mm	2 603mm	5 70mm Drop Edge	
2 1000mm	3 800mm	7 PROFIttec Edge	
ESD 			
4 800mm			
5 900mm			
6 1000mm			



Standard 75mm
max. 150kg
height: 82mm

Heavy Duty 100/125mm
max. 300kg
height: 135/162mm

Design 100mm
max. 300kg
height: 118mm

Caster Options	Heavy Duty Ø 100mm	Heavy Duty Ø 125mm	Design Ø 100mm
Standard	440.001.900	440.003.900	440.001.950
ESD 	440.002.900	440.004.900	440.002.950

>> for handles please see page 177




MIDDLE SHELF FOR PROFI CART

- Light grey, 30mm thick melamine resin covered chipboard, sides with 3mm PP plastic edge.
- ESD version volume and surface conductive according to DIN EN61340.
- Fixing brackets, durable conductive powder coated in light grey.
- Incl. assembly set for a height variable fixation.



Middle Shelf for PROFI Cart 44 **T** .11 **B** .001

T Depth		B Width
Standard	ESD 	
0 630 for 800mm	4 630 for 800mm	1 420 for 500mm
1 730 for 900mm	5 730 for 900mm	2 523 for 603mm
2 830 for 1000mm	6 830 for 1000mm	3 720 for 800mm

SHORT CONTAINER FOR PROFI CART

- Body made of 19mm melamine resin covered chipboard with 2mm PP plastic edge.
- Robust organizable sheet steel drawer with single drawer blocking system in HE raster (1HE=50mm).
- Ball bearing guided telescopic extension, max. 25kg.
- Ergonomically bevelled front made of 19mm thick melamine resin covered chipboard with nickel-plated metal handles.
- 1HE pencil drawer with central lock (master-key-system) and 2 keys.

ESD Version:

- Volume and surface conductive body according to DIN EN 61340.
- Conductive organizable sheet steel drawer with conductive wooden front.




Design Type:

- Ergonomically bevelled front without handle.
- Both sides with vertical grip strip.

EE Drawer in HE raster (1HE = 50mm)



PROFI Short Container 43 **A** .**EE** **T** . **F** 0 **B**

A Version	EE Drawers	T Depth	F Type	B Width
1 Standard	12 1x Drawer; height: 170mm	0 580mm	0 Standard	3 420mm
3 ESD 	23 2x Drawers; height: 290mm	1 680mm	2 Design	5 523mm
	22 1HE Pencil Drawer + 2HE + 3HE; H: 340mm	2 780mm		7 720mm
	24 1HE Full Extension Shelf + 2HE + 3HE; H: 340mm	439.100.103 Full Extension (per drawer), max. load: 45kg		
		439.100.003 Drawer Closing with SoftStop (per drawer)		



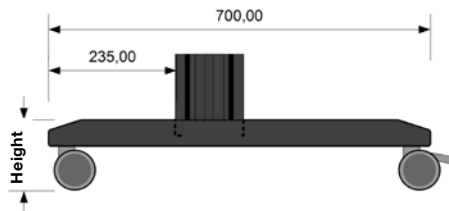
MOVE YOUR VALUABLE EQUIPMENT WITHOUT THE SLIGHTEST RISK


There are often vibration-sensitive instruments in laboratories or fully loaded small part bins on workshop benches which need to be moved carefully. For this reason we offer a broad modular range equipped with casters and extra stiffener, so you can move your equipment safely between the locations, even on uneven floors.



BASE FOR PROFI MOBILE


- Flat and very sturdy H-frame made of sheet steel with four thread inserts for steering casters.
- Reinforced bores for the acceptance of the extensions.
- Durable powder coated according to RAL Code.
- Four twin-casters (75mm), two with brakes.



Base for PROFI Mobile		44	A .11	B .900
A Version	B Width			
0 Standard	4 510mm	7	1010mm	
4 ESD 	5 613mm	8	1305mm	
	6 810mm			



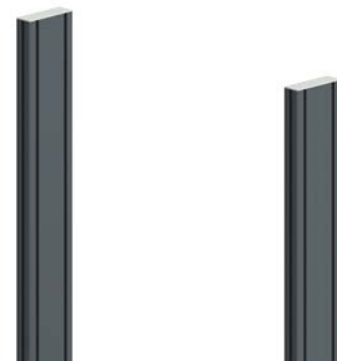
Caster Options	Heavy Duty Ø 100mm	Heavy Duty Ø 125mm	Design Ø 100mm
Standard	max. 150kg height: 132mm	max. 300kg height: 185/212mm	max. 300kg height: 168mm

Caster Options	Heavy Duty Ø 100mm	Heavy Duty Ø 125mm	Design Ø 100mm
Standard	440.001.000	440.003.000	440.001.050
ESD 	440.002.000	440.004.000	440.002.050

EXTENSIONS FOR PROFI MOBILE

- Two hera aluminium profiles SINGLE with six surrounding slots.
- Incl. 2 profile covers and assembly set.
- Durable powder coated according to RAL Code.

Extensions for PROFI Mobile		402.0	HH .900
HH Height			
05 500mm	max.	20	2000mm in 100mm raster



BASE SHELF FOR PROFI MOBILE

- Light grey 28mm thick melamine resin covered chip-board with 3mm PP plastic edge and cutout for extensions.
- Depth: 500mm.


Width	Standard	ESD 
500mm	443.058.001	443.558.001
603mm	443.068.001	443.568.001
800mm	443.088.001	443.588.001
1000mm	443.108.001	443.608.001
1295mm	443.138.001	443.638.001



SHELF FOR PROFI MOBILE

- Light grey 28mm thick melamine resin covered chipboard with 3mm PP plastic edge.
ESD version surface - and volume conductive according to DIN EN 61340.
- Lower side with thread inserts for the fixation to the sheet steel support.
- Sheet steel support 275 x 10mm (DxH), durable powder coated in light grey. Prepared for the height variable fixation between the extensions.

Shelf for PROFI Mobile 443.**BB** **T** .001

BB Width		T Depth	
		ESD 	
05	420mm	55	420mm
06	523mm	56	523mm
08	720mm	58	720mm
10	920mm	60	920mm
13	1215mm	63	1215mm
424.029.500:		Option: Stop Edge H: 6mm	



SHELF RAILING FOR PROFI MOBILE

- Shelves can be optionally bordered with railings to prevent instruments from dropping down.
- 2-part sheet steel railing, which can be fixed in the slots of the extensions on variable height.
- Durable powder coated in light grey.
- Height: 30mm.

Shelf Railing for PROFI Mobile 443.**BB** **T** .001

BB Width	T Depth
85 420mm	5 500mm
86 523mm	6 600mm
88 720mm	7 700mm
90 920mm	
93 1215mm	



OTHER OPTIONS FOR PROFI MOBILE

- Swivel Shelf.
- Function Shelf.
- Calbe Trays for Shelf.

see Chapter 03: PROFI Bench Racks



HIGH MODULARITY AND STABILITY - THE PROFI MOBILE

No matter if in laboratories, workshops or classrooms, there are numbers of applications where it is much more practical to have a mobile workstation. The demand on those configurations is individual and so manifold (e.g. with straight or tiltable shelf, with or without instruments, with PC and TFT, ...), that we decided to offer the full range of accessories also for the PROFI mobiles.



THE PROFI MOBILE ENERGY WITH MODULARLY EQUIPPED EXTENSIONS


The PROFI Mobile ENERGY is not only good for transportation but can be a fully installed test station with integrated circuit breakers, sockets, pressured air - and data connectors. The equipment is modular and all cables are perfectly protected as the full cabling is in the extensions.

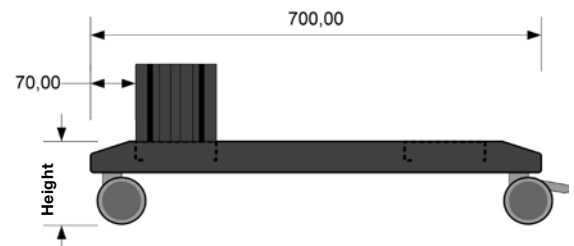


BASE FOR PROFI MOBILE ENERGY

- Flat and very sturdy H-frame made of sheet steel with thread inserts for the swivel casters.
- Reinforced bores for the acceptance of the aluminium extensions.
- Durable powder coated according to RAL Code.
- Four twin-casters (75mm), two with brake.
- Dimensions: 700 x 130mm (DxH).
- Load capacity: 150kg (standard casters), 300kg (heavy duty casters).




Base for PROFI Mobile ENERGY 44 A .11 B .950				
A Version		B Width		
0	Standard	4	500mm	7 1000mm
4	ESD 	5	603mm	8 1295mm
		6	800mm	



Standard 75mm
max. 150kg
height: 132mm

Heavy Duty 100/125mm
max. 300kg
height: 185/212mm

Design 100mm
max. 300kg
height: 168mm

Caster Options	Heavy Duty Ø 100mm	Heavy Duty Ø 125mm	Design Ø 100mm
Standard	440.001.000	440.003.000	440.001.050
ESD 	440.002.000	440.004.000	440.002.050



ENERGY EXTENSION FOR PROFI MOBILE

- Two modular equipable hera ENERGY profiles with 6 surrounding slots.
- Front side prepared for the flexible acceptance of modules in KP raster.
- Durable powder coated according to RAL Code.
- Dimensions: 125 x 102mm (DxH).

Height		Height	
500 (2x 11KP)	320.055.900	1000 (2x 24KP)	320.105.900
600 (2x 14KP)	320.065.900	1100 (2x 26KP)	320.115.900
700 (2x 16KP)	320.075.900	1200 (2x 29KP)	320.125.900
800 (2x 19KP)	320.085.900	1500 (2x 36KP)	320.155.900
900 (2x 21KP)	320.095.900	2000 (2x 49KP)	320.205.900



>> see chapter 10 for KP modules


WOODEN SHELF FOR PROFI MOBILE ENERGY



- Light grey, 28mm thick melamine resin covered chip-board, sides with 3mm PP plastic edge and cutouts for ENERGY extensions.
- ESD version volume - and surface conductive according to DIN EN 61340.
- Sheet steel support, durable light grey powder coated.
- Height: 50/130mm.



Wooden Shelf for PROFI Mobile ENERGY 443. **BB** **T** **A** 51

BB Width	T Depth	A Version
05 500mm	4 400mm	1 Standard
06 603mm	5 500mm	2 ESD 
08 800mm	6 600mm	
10 1000mm		
13 1295mm		

INSTRUMENT SHELF FOR PROFI MOBILE ENERGY



- Very sturdy sheet steel shelf, durable conductive powder coated in light grey.
- For the assembly between the ENERGY extensions in variable height.
- Rear sided stop edge: 20mm.
- Usable shelf width: width - 204mm.
- Height: 20/100mm



Instrument Shelf for PROFI Mobile ENERGY 443. **BB** **T** .051

BB Width	T Depth
05 500mm 10 1000mm	4 400mm
06 603mm 13 1295mm	5 500mm
08 800mm	6 600mm

BASE SHELF FOR PROFI MOBILE ENERGY

- Light grey, 28mm thick melamine resin covered chip-board, sides with 3mm plastic edge.
- Sides with cutout for the ENERGY extensions.
- Depth: 500mm.



Width	Standard	ESD 
500mm	443.058.051	443.558.051
603mm	443.068.051	443.568.051
800mm	443.088.051	443.588.051
1000mm	443.108.051	443.608.051
1295mm	443.138.051	443.638.051

SHORT CONTAINER FOR PROFI MOBILE

- Body made of 19mm melamine resin covered chipboard with 2mm PP plastic edge.
- Robust organizable sheet steel drawer with single drawer blocking system in HE raster (1HE = 50mm).
- Ball bearing guided telescopic extension, max. 25kg.
- Ergonomically bevelled front made of 19mm thick melamine resin covered chipboard with nickel-plated metal handles.
- 1HE pencil drawer with central lock (master-key-system) and 2 keys.

ESD Version:

- Volume - and surface conductive body according to DIN EN 61340.
- Conductive organizable sheet steel drawer with conductive wooden front.



Design Type:

- Ergonomically bevelled front without handle.
- Both sides with vertical grip strip.

EE Drawers in HE raster (1HE = 50mm)



Short Container for PROFI Mobile 43 **A** **EE** **T** **F** **B** 6

A Version	EE Drawers	T Depth	F Type	B Width
1 Standard	12 1x Drawer, height: 170mm	0 580mm	1 Standard	0 420mm
3 ESD 	23 2x Drawer, height: 290mm	1 680mm	2 Design	5 523mm
	22 1HE Pencil Drawer + 2HE + 3HE; H: 340mm	2 780mm		7 720mm
	24 1HE Full Extension Shelf + 2HE + 3HE; H: 340mm			




Options (per Drawer)

439.100.103	Option full extension (load capacity: 45kg)
439.100.003	Option drawer closing with SoftStop

>> see chapter 7 for more options



Option: Drawer with Reiling

431.000.100	Standard
433.000.100	ESD 

19" INSTRUMENT RACK FOR PROFI MOBILE

- Light grey body made of 19mm thick melamine resin covered chipboard.
- ESD version: volume - and surface conductive body according to DIN EN 61340.
- Sides with fixing holes for the acceptance between the extensions.
- Perforated sheet steel rear panel with 2 cable glands.
- Prepared for the acceptance of 19" modules.
- Type F socket strip for the connection of the 19" modules (other types on demand).
- Width: 523mm, depth: 468mm.




>> see chapter 9 for more instrument racks

19" Instrument Rack for PROFI Mobile 420.06 **H**.00 **A**

H Height

A Version

2	216mm / 4HE	0	Standard
3	351mm / 7HE	5	ESD 
4	483mm / 10HE		
6	661mm / 14HE		
8	973mm / 21HE		

BRUSH CHANNEL

- This channel enables clearly arranged cable runs for frequently changing wirings.
- Sheet steel cable channel, closed with brush strip. The channel runs in parallel to the extensions or aluboard.
- Available either closed or slotted for variable cable outlets.
- Depth: 70mm.



closed version
for ENERGY extensions



slotted version
for PROFI extensions



closed version
for PROFI extensions

Brush Channel, vertical 401.0 **HH**. **A** **F** **0**

HH Height

A Version

F Extensions

03	300mm	05	500mm	07	700mm	09	900mm	11	1100mm	5	closed	0	SINGLE/MULTI (W: 40mm)
04	400mm	06	600mm	08	800mm	10	1000mm	12	1200mm	6	slotted	1	ENERGY (W: 102mm)

Brush Channel, horizontal 401.0 **BB**. **A** **M** **0**

BB Width

A Version

M Extensions

05	500mm	09	900mm	13	1295mm	5	closed	5	full width (-0mm)
06	603mm	10	1000mm			6	slotted	6	SINGLE/MULTI (-80mm)
08	800mm	12	1200mm					7	ENERGY (-204mm)

19" SOCKET STRIP 1HE

- The 19" socket strip is equipped with fixing brackets for the easy integration into 19" racks.
- Black power cable H05VV-F 3G1,50mm² (length 2m) with angled Type F plug.



19" Socket Strip 19" 1HE			
293.405.400	5x socket with switch and overvoltage protection, mains- and frequency filter	293.407.300	7x socket with switch and overvoltage protection (optical function - and failure indication)
293.406.500	6x socket with RCD 30mA, 2poles	293.408.200	8x socket with switch
293.406.600	6x socket with automatic circuit breaker B16A, 2poles	293.409.100	9x socket, no switch

KEYBOARD EXTENSION FOR PROFI MOBILE

- Light grey, 28mm thick melamine resin covered plate, all sides with 3mm PP plastic edge. ESD version surface - and volume conductive according to DIN EN 61340.
- Two telescopic metal rails (250mm extension).
- Depth: 385mm.

Optionally Extendable Mousepad:

- Light grey 19mm thick melamine resin covered plate (200 x 200mm), all sides with 2mm PP plastic edge, metal rails and grip-strip.
- For the flexible installation under shelves and extendable keyboard supports.

Width	Standard	ESD 
420mm	443.059.001	443.059.501
523mm	443.060.001	443.060.501
720mm	443.080.001	443.080.501
920mm	443.100.001	443.100.501
Mousepad	439.300.002	439.300.502



NOTEBOOK DRAWER

- Light grey drawer with flap and key-lock.
- Sheet steel rear panel with power cable and plug, 3x integrated sockets, type F (others on demand).
- Extensional plate with telescopic rails, blocking in end position. Extensional mousepad at the side.
- Socket strip at the rear side of the plate.
- Dimensions: 170 x 580mm (HxD).

Width	Standard	ESD 
420mm	443.159.000	443.159.500
523mm	443.160.000	443.160.500
720mm	443.180.000	443.180.500



CURVED HANDLE FOR PROFI MOBILE & CART

- The handle is for the modular acceptance at the PROFI mobile.
- Two sheet steel side parts.
- Tubular steel handle.
- Durable powder coated according to RAL Code.

Width		Width	
500mm	440.009.000	800mm	440.011.000
603mm	440.010.000	1000mm	440.012.000



STRAIGHT HANDLE FOR PROFI MOBILE & CART

- Two side parts made of 30 x 30mm aluminium profile.
- Tubular handle, diameter: 25mm.
- Hidden profile connectors for the fixation to the extensions.
- Durable powder coated according to RAL Code.

Straight Handle		440. 05 B . T 01	
B Width		T Depth	
1 500mm	4 1000mm	0 175mm (PROFI Cart)	
2 603mm	5 1295mm	1 385mm (PROFI Mobile)	
3 800mm		2 515mm (ENERGY Mobile)	



PROFI UNIVERSAL HANDLE

- Highly durable black plastic handle.
- Incl. assembly set for the slot fixation in the PROFI - and ENERGY profiles.
- Dimensions: 140 x 40 x 27mm (LxWxH).

PROFI Universal Handle	468.400.100
------------------------	-------------



PROFI CORD HOLDER

- Bowed cord holder with integrated comb, made of 3mm aluminium sheet.
- Cable comb suitable for test leads, power cords, etc.
- Durable, conductive powder coating in light grey.
- Dimensions: 160 x 100 x 65mm (WxDxH).

PROFI Cord Holder	299.221.501
-------------------	-------------



PROFI SHAFT CABLE DISPENSER

consisting of:

- 2x solid synthetic connectors (110 x 50 x 20mm) installed with sliding nuts to the extensions.
- Metal shaft (diameter: 20mm).
- Bracket for cable guidance, made of 30 x 30mm aluminium profile with 3 slidable cable eyes.
- Depth: 180mm.

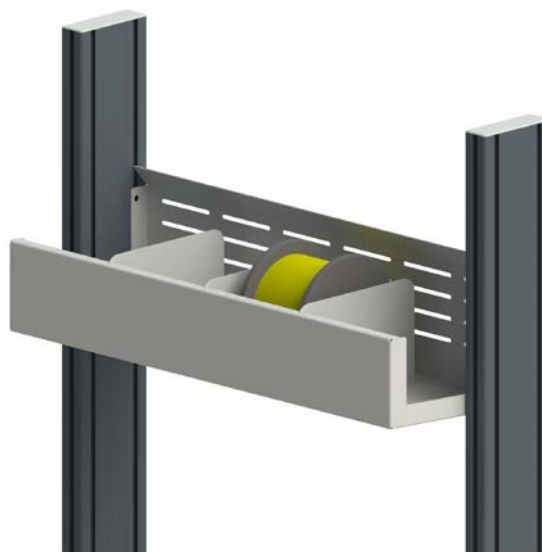
Width		Width	
420mm	448.050.800	920mm	448.100.800
523mm	448.060.800	1215mm	448.130.800
720mm	448.080.800		



PROFI CABLE DISPENSER

- Sheet steel trough with slotted front for cable outlet.
- Bottom of trough with slots for a modular separation to individual widths of the cable reels.
- Sides with mounting holes for the installation between the PROFI extensions. Rear side with hooks for the optional fixation to a perforated backplane.
- Max. reel diameter: 220mm.
- Durable, light grey powder coated.
- Diameter: 260 x 200mm (DxH).

Width		Width	
420mm	448.050.900	920mm	448.100.900
523mm	448.060.900	1215mm	448.130.900
720mm	448.080.900		



PROFI CABLE ROLLER, MOVABLE

consisting of:

- Sheet steel support, durable light grey powder coated.
- For the flexible installation to all PROFI profiles.
- Aluminium shaft (diameter: 20mm).
- Max. diameter of cable reel: 220mm.

for Reel Width (max)	
80mm	448.008.600
170mm	448.017.600
260mm	448.026.600



MOBILE TRAINING STANDS

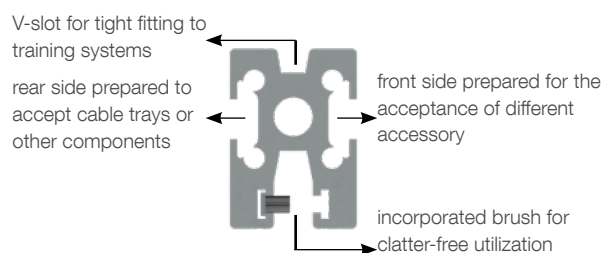
INDIVIDUALLY CONFIGURED FOR BETTER RESULTS!

Like our training benches, the mobile training stands are characterized by a high degree of flexibility. With respect to your teaching - or presentation target, the mobile stands can be modularly equipped with lamps for sun simulation, tiltable or fixed training system frame, with modular power consoles, monitor arms, shelves or any other practical components.



TRAINING SYSTEM FRAME FOR STANDARD A4 PANELS

- H-Profile in DIN A4 height to hang up training panels in standard size.
- Lower side with incorporated brush strip for clatter-free use.
- Upper side with V-slot for training systems with max. 6mm thick front panels.
- Front - and rear side with slots for sliding nuts.
- Side parts, prepared for the assembly between PROFI extensions.
- Dimensions: 26 x 37mm (DxH).



Training System Frame				461. BB H 9 F O					
BB Bench Width				H Levels / Height		F Extensions		O H-Profile	
05	500mm	10	1000mm	0	1x H-Profile	0	for PROFI Mobile	0	aluminium anodized
06	603mm	13	1295mm	1	2x H-Profile / 360mm	5	for ENERGY Mobile	2	powder coated
08	800mm			2	3x H-Profile / 680mm				
				3	4x H-Profile / 1000mm				

PROFI MOBILE CABLE COMB

- Cable comb made of aluminium, with different gaps for the acceptance of cables with max. 12mm.
- Durable light grey powder coating.
- Incl. assembly set for the fixation to the extensions.
- Height: 30mm.



Depth	300/17	500/31	Width / No. Gaps 603/37	800/46	1000/56
80mm	448.160.000	448.180.000	448.200.000	448.220.000	448.240.000
160mm	448.170.000	448.190.000	448.210.000	448.230.000	448.250.000

PROFI MOBILE CORD HOLDER

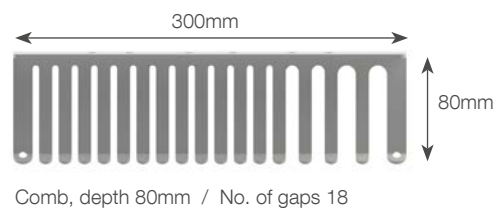
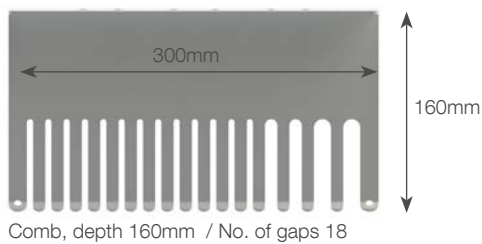
- Two sheet steel V-braces with PROFI extension in different heights.
- Four swivel casters (diameter: 75mm), two with brake.
- Alternatively with height adjustable glides (diameter: 40mm).
- Base: 620 x 530mm.
- Cable comb made of aluminium sheet with different gaps for max. cord diameter of 12mm.
- Durable, light grey powder coated.
- Optionally with lockable bracket or -hood to prevent unauthorized removal of test leads.

Extension	Height	Extension	Height
401.106.900	600	401.112.900	1200
401.107.900	700	401.113.900	1300
401.109.900	900	401.114.900	1400
401.110.900	1000	401.116.900	1600
401.111.900	1100	401.118.900	1800

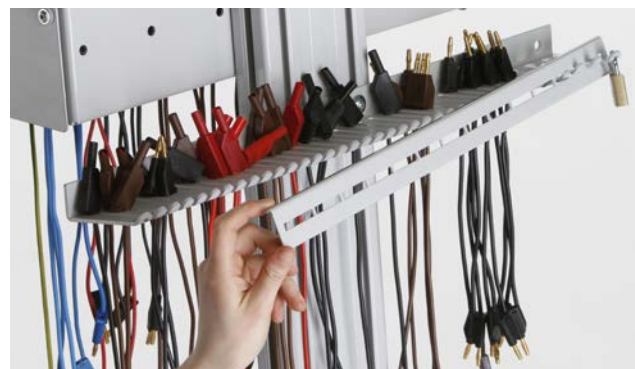
Base	
440.117.000	Base with Swivel Casters
440.117.100	ESD Base with Swivel Casters 
440.117.200	Base with Glides
440.117.300	ESD Base with Glides 



Width / No. of gaps	Basic Comb		Lockable Bracket for Basic Comb	Comb for Hooded Version Depth: 160mm	Hood Depth: 160mm
	Depth: 80mm	Depth: 160mm			
300 / 17	448.160.000	448.170.000	448.170.700	448.170.100	448.170.500
500 / 31	448.180.000	448.190.000	448.190.700	448.190.100	448.190.500
603 / 37	448.200.000	448.210.000	448.210.700	448.210.100	448.210.500
800 / 46	448.220.000	448.230.000	448.230.700	448.230.100	448.230.500
1000 / 56	448.240.000	448.250.000	448.250.700	448.250.100	448.250.500



Comb with Hood: 448.210.100 + 448.210.500



Comb with Lockable Bracket: 448.200.000 + 448.210.700

TOP SHELF FOR PROFI MOBILE CORD HOLDER

- Light grey 28mm thick melamine resin covered chipboard with 3mm PP plastic edge.
- Lower side with thread inserts for the fixation of supporting brackets.
- Two supporting brackets, durable light grey powder coated for the assembly to the PROFI extension.



Top Shelf for PROFI Mobile Cord Holder

440.210.001	Squared 500 x 500mm
440.210.002	Round 500mm

SHELF BOX FOR PROFI MOBILE CORD HOLDER

- Sheet steel box with bores for the fixation to the PROFI extension.
- Durable, light grey powder coating.



Shelf Box for PROFI Mobile Cord Holder

440.310.001	300 x 200 x 20mm (WxDxH)
-------------	--------------------------

PROFI MOBILE CORD HOLDER LC

Mobile cord holder for 4mm test leads, light grey powder coated, consisting of:

- Stable sheet steel H-base with 4 swivel casters (70mm diameter), two with brakes.
- Aluminium profile 125 x 40 x 1100mm.
- Base: 600 x 600 x 180mm (WxDxH).
- Cable comb made of aluminium with 29x gaps (5mm).
- Durable, light grey powder coating.



PROFI Mobile Cord Holder LC

940.131.909	600 x 600 x 1290mm (WxDxH)
-------------	----------------------------



A PRACTICAL ASSISTANT FOR PRODUCTION AREAS - **THE EASY CART**

The cart of our EASY system offers sufficient space and stability for a convenient transportation of your products between the various stations in your production area. Height and depth of the carts are adapted to our benches, so the carts can be individually used to extend your workstation.



EASY CART

- Surrounding tubular steel frame 30 x 30mm.
- Four legs of tubular steel 30 x 30mm, connected to the frame with torsion-resistant corner joints.
- Durable 30mm thick top plate, sides with 3mm PP plastic edge.
- 28mm thick shelf board on 30 x 30mm braces.
- Four swivel casters (diameter: 75mm), two with brakes.
- Durable powder coated steel parts.
- Max. load capacity: 200kg.
- Height: 780mm; width: 610mm.



ESD Version:



- Surface - and volume conductive top plate and intermediate shelf, sides with antistatic 3mm PP plastic edge.
- ESD casters.

EASY Cart 1 TT 10 A F R 0					
TT	Depth	A	Version	F	Color
19	800mm	2	Standard	5	light grey
20	900mm	7	ESD 	7	anthracite
21	1000mm				
R	Caster				
0	75mm				
1	100mm				
2	125mm				

DRAWER FOR EASY CART

- Body made of melamine resin covered chipboard in light grey, with lock and 2 keys (master-key-system).
- Roller guided wooden drawer with full width grip strip.
- Dimensions: 540 x 620 x 120mm (WxDxH).



Drawer for EASY Cart

120.112.500

HANDLE BAR FOR EASY CART

- Curved handle made of aluminium tube for the assembly at the cart frame.
- Color: black anodized.
- Width: 400mm, diameter: 20mm.



Handle Bar for EASY Cart

120.100.100

EASY STORAGE CART

- Surrounding tubular steel frame 30 x 30mm.
- Four tubular steel legs 30 x 30mm with bores in 50mm raster for the assembly of extra shelf boards in variable heights.
- Durable 30mm thick top plate, sides with 3mm PP plastic edge.
- 30mm thick bottom plate assembled to 30 x 30mm tubular steel braces.
- Four swivel casters (diameter: 75mm), two with brakes.
- Durable powder coated steel parts.
- Load capacity: 200kg.
- Dimensions: 1500 x 610mm (H x W).




ESD Version:



- Surface - and volume conductive top plate and intermediate shelf, sides with antistatic 3mm PP plastic edge.
- ESD casters.

EASY Storage Cart 1 TT.15 A F R 0

TT Depth	A Version	F Color	R Caster
19 800mm	2 Standard	5 light grey	0 75mm
20 900mm	7 ESD 	7 anthracite	1 100mm
21 1000mm		9 RAL Code	2 125mm

SHELF BOARD FOR EASY STORAGE CART

- 30mm thick shelf board, sides with 3mm PP plastic edge.
- Two sheet steel braces, durable light grey powder coated.
- Width: 610mm.



Shelf Board for EASY Cart 122 TT A F 00

TT Depth	A Version	F Color	9 RAL Code
08 800mm	0 Standard	5 light grey	9 RAL Code
09 900mm	5 ESD 	7 anthracite	
10 1000mm			

EASY MOBILE CORD HOLDER

- Solid tubular steel base.
- 4 swivel casters (diameter 75mm), two with brakes.
- Durable powder coated steel parts.
- Dimensions: 500 x 500 x 1650mm (WxDxH).

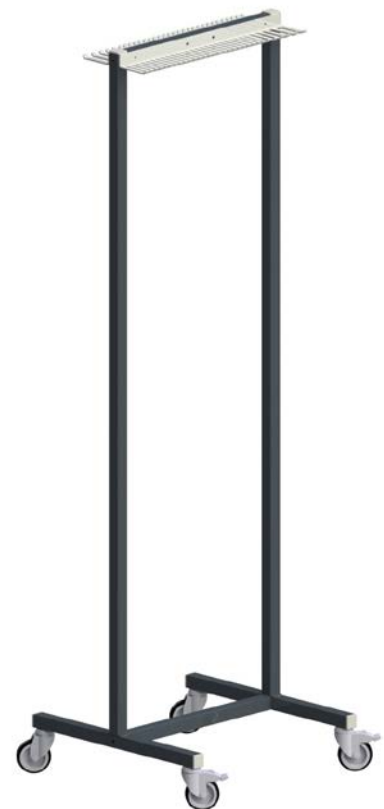
Version with Plastic Tines:

- Both sides with U-profiles, suitable for 34 tines, which can be used for flexible cable widths.

Version with Aluminium Comb:

- Both sides with aluminium cable comb, durable powder coated.
- No. of gaps / gap width per side:
2x 12mm / 3x 8mm / 25x 4mm.

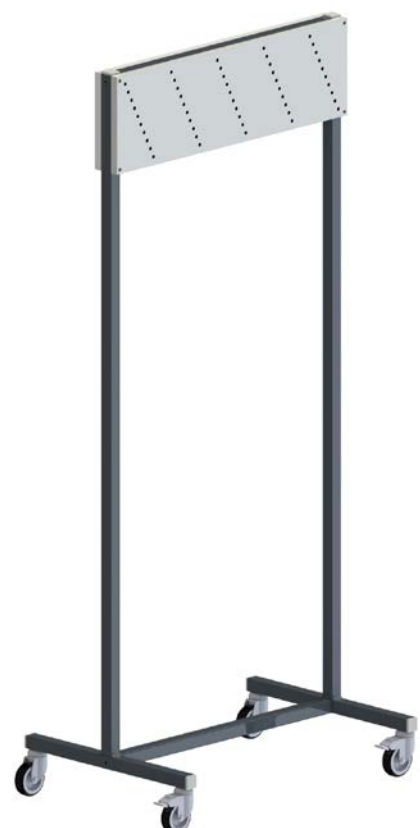
EASY Mobile Cord Holder 299.22 A F 00	
A Version	F Color
2 with Tines	1 anthracite
3 with Aluminium Comb	5 light grey
	9 RAL Code
Extra Tines	299.211.100



EASY MOBILE CORD HOLDER (PLUG TYPE)

- Solid tubular steel base.
- 4 swivel casters (diameter 75mm), two with brakes.
- Both sides with melamine resin covered chipboard and slopely arranged holes to plug in 50 test leads on each side.
- Durable powder coated steel parts.
- Dimensions: 710 x 500 x 1650mm (WxDxH).

EASY Mobile Cord Holder (plug type) 299.20 A F 00	
A Version	F Color
1 for 2mm test leads	5 light grey
2 for 4mm test leads	7 anthracite
4 for 4mm safety test leads	9 RAL Code



EVERYTHING ON BOARD WITH THE EASY DIDACT MOBILE

The EASY Didact Mobile converts your theoretical classroom into an adequate laboratory in no time at all. It consists of a cabinet with casters, which is equipped with slotted mats for storing the training systems. On top it holds an instrument rack with circuit breakers, power sockets and all required sources & instruments as well as a training system frame where currently required trainers can be fitted.

This solution allows you to use the trainers in each regular classroom.



EASY DIDACT MOBILE

- Light grey body made of 19mm thick melamine resin covered chipboard with 2mm PP plastic edge.
- Top - and bottom plate 30mm thick.
- Solid incorporated 13mm decorative rear wall.
- Four swivel casters with ball bearing, two with brakes and position lock.
- Depth: 625mm.

Double Doors:

- Surrounding rubber lip for dust shield.
- 180° opening metal hinges.
- Espagnolette lock (master-key-system) with handle and two keys.

Sliding Doors:

- Sliding doors with easy running roller guides.
- Cylindric push lock (master-key-system) and metal handles.


Shelf Boards and Drawers:

- See page 229 for suitable shelf boards.
- 2x drawers with central lock.

ESD Version:

- Surface - and volume conductive body and door.
- ESD casters.



EASY Didactic Mobile 440.8 BB T H A					
BB Width		T Door	H Height		A Version
08	800mm	0 Double Doors	with Shelf Boards	with Drawers	0 Standard
10	1000mm	1 Sliding Doors	0 780mm	2 780mm	5 ESD 
12	1200mm		1 1200mm	3 1200mm	



STORAGE CART FOR TRAINING SYSTEMS

- Solid body made of light grey melamine resin covered chipboard.
- Four heavy duty casters (100mm), two with brakes.
- Inner sides with slotted mats for the compact storage of training systems in standard size.
- Optionally with sheet steel boxes in panel size and dividers for 8x training boxes or other small parts.

Storage Cart for Training Systems	940.256.100
-----------------------------------	-------------



Sheet Steel Boxes	940.256.200
-------------------	-------------



THE MODULAR SOLUTION TO ADD PRODUCTION LINES

The modular configured FLEX Mobile is especially for production areas where stocks or tools need to be transported between A and B. Check out the different accessory which can be attached modularly due to the practical keyhole system. The shelves are with stop edge to hold everything in place even on rough grounds.



BASE FOR FLEX MOBILE

- Solid H-frame with thread inserts for the casters, two with brakes. Screw-fixed upright sections made of sheet steel, 3 sides with keyhole perforation for the fixation of components in flexible height.
- Dimensions of braces: 70 x 40mm (WxD).
- Durable conductive powder coating in light grey.
- Depth: 700mm.

Base for FLEX Mobile		141.5 BB , HH 0	
BB Width		HH Height	
06 566mm		06 600mm	11 1100mm
08 766mm		07 700mm	12 1200mm
10 966mm		08 800mm	13 1300mm
12 1166mm		09 900mm	14 1400mm
13 1261mm		10 1000mm	15 1500mm



BRUSH STRIP FOR FLEX UPRIGHT SECTIONS, PAIR


- For a completely hidden cable run with flexible cable outlet within the FLEX Upright Sections.

Brush Strip, Pair		140.0 HH , 100	
HH Height			
06 600mm		10 1000mm	13 1300mm
07 700mm		11 1100mm	14 1400mm
08 800mm		12 1200mm	15 1500mm
09 900mm			



CASTERS / LEVELERS FOR FLEX MOBILE, SET

- Four casters, two with brake or alternatively four levelers.

Set of Casters / Levelers for FLEX Mobile		141.50 A DDD	
A Version		DDD Type	
0 Standard		000 Levelers; H: 15mm	
1 ESD 		075 Casters D: 75mm; load: 180kg, H: 100mm	
		100 Casters D: 100mm; load: 300kg, H: 135mm	
		125 Casters D: 125mm; load: 360kg, H: 160mm	



FLEX HANDLE

- Durable, black plastic handle.
- Incl. assembly set for the fixation to the FLEX Upright Sections.
- Dimensions: 140 x 40 x 27mm (WxDxH).

FLEX Handle

468.400.100



SWIVEL SHELF FOR FLEX MOBILE

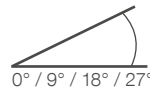
- Swivel shelf for hooking into FLEX Upright Sections.
- Front with 20mm stop edge for drop-down prevention.
- Adjustable tilt in 4 steps (0° / 9° / 18° / 27°).
- Made of sheet steel with durable conductive powder coating in light grey.

Swivel Shelf for FLEX Mobile

140.2 BB.0 T 0

BB Width**T** Depth

06	530mm	12	1130mm	3	300mm
08	730mm	13	1155mm	4	400mm
10	930mm			5	500mm



FIFO SWIVEL SHELF FOR FLEX MOBILE

- Swivel shelf made of sheet steel with durable conductive powder coating in light grey.
- Front side with 20mm stop edge.
- Lower side with swivel support for stepless adjustable tilt and depth.

FIFO Shelf for FLEX Mobile 140.2 BB.5 T 0

BB Width**T** Depth

06	460mm	12	1060mm	4	400mm
08	660mm	13	1155mm	5	500mm
10	890mm			6	600mm



BIN SUPPORT FOR FLEX MOBILE

- Support for storage bins made of double folded sheet steel for the assembly between the FLEX Upright Sections.
- Durable conductive powder coating in light grey.

Bin Support for FLEX Mobile	
140.606.000	Width: 460mm
140.608.000	Width: 660mm
140.610.000	Width: 860mm
140.612.000	Width: 1060mm



CABLE DISPENSER FOR FLEX MOBILE

- Sheet steel trough with slotted front for cable dispensing.
- Slotted bottom and sides for the adaption to the individual cable reel widths.
- Sides with holes for the fixation between extensions and rear side prepared for hooking into perforated backplanes.
- Made of sheet steel with durable conductive powder coating in light grey.

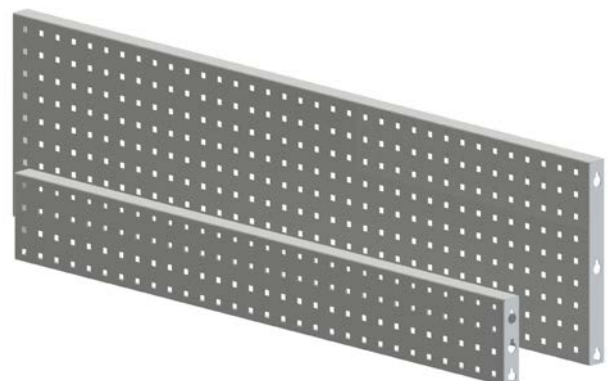
Cable Dispenser for FLEX Mobile	
140.206.000	Width: 460mm
140.208.000	Width: 660mm
140.210.000	Width: 860mm
140.212.000	Width: 1060mm



PERFORATED BACKPLANE FOR FLEX MOBILE

- Prepared for the assembly between two FLEX Upright Sections.
- Squared perforation 10 x 10mm in 38mm raster.
- Made of sheet steel, durable conductive powder coated in light grey.

Perforated Backplane for FLEX Mobile 140.5 BB.0 H 0					
BB Width				H Height	
06	460mm	10	860mm	1	150mm
08	660mm	12	1060mm	3	350mm





CHAPTER 7: CONTAINERS

- | | | | |
|------------|--|------------|--|
| 194 | PROFI Container | 203 | Drawer Inserts for PROFI Container |
| 194 | LC Container (9HE) | 204 | Tool Sets for PROFI Container |
| 196 | PROFI Container (11HE) | 206 | EASY Drawer Inserts |
| 198 | PROFI Pedestal Container (13HE) | 207 | Filing Cubicle |
| 199 | PROFI Short Container | 208 | Storing Tower |
| 200 | PROFI Narrow - & Wide Container | 209 | Sheet Steel Container |
| 201 | PC Container and Training System Storage | 211 | Sheet Steel Mobile - & Suspended Container |
| 202 | PROFI Divider & Separator | 212 | Sheet Steel Pedestal Container |

PROFI CONTAINER (9HE)



Standard Mobile Container 9HE



Standard Suspended Container 9HE

F Standard Form

- Body made of 19mm melamine resin covered chipboard with 2mm PP plastic edge. Solid top and bottom plate for a maximum of stability and durability.
- Robust organizable (Orga) sheet steel drawer with single drawer blocking system (load capacity: 25kg).
- Front in HE raster (1HE = 50mm) with nickel plated metal handle or handle-free design.
- Central lock (master-key-system) with 2 keys.
- Mobile containers with 4 twin casters (diameter: 50mm), two with brakes, max. load capacity: 150kg.
- Suspended containers with mounting holes in top plate.
- Inner dimensions of drawers: width: 327mm / depth: 490mm (D: 580/680) / 690mm (D: 780) height: 80mm.
- Dimensions: width: 420mm; depth: 580 / 680 / 780mm; height: 575mm (mobile) / 490mm (suspended).



Premium Mobile Container 9HE handle-free grip strip



Premium Mobile Container 9HE with Handles in RAL-Code

A Premium Type, handle-free or with handle.

Die Premium type includes following features:

- Mobile container with 75mm heavy duty twin casters, max. load capacity: 300kg.
- Top plate covered by drawer front of mobile container.
- **Telescopic full extension and SoftStop as a standard.**

A Version

Mobile Container



Suspended Container

ESD Version
according DIN EN 61340

Body made of surface and volume conductive material, conductive metal drawers and fronts, ESD swivel casters.

**O** Top Drawer

- with lock and small part tray
- pencil drawer with lock 1HE



Small Part Tray

Pencil Drawer Standard
(not available in ESD; depth: 20mm)Pencil Drawer PLUS
(available in ESD; depth: 40mm)**E** Features

- Drawers in HE raster (1HE = 50mm)
- with door instead of drawers

3HE + 6HE
with Small Part TrayV1: 3HE + 2HE + 4HE
V2: 3HE + 3HE + 3HE
with Small Part Tray3HE + 2HE + 2HE + 2HE
with Small Part TrayContainer with Door,
right hinges1HE + 2HE + 6HE
with Pencil DrawerV1: 1HE + 2HE + 3HE + 3HE
V2: 1HE + 2HE + 2HE + 4HE
with Pencil Drawer1HE + 2HE + 2HE + 2HE +
2HE, with Pencil DrawerContainer with Door,
left hinges

PROFI Container (9HE)

43 A . E O T . F B 3

A Version	E Features	O Top Drawer	T Depth	F Form	B Width
1 Suspended	2 2x Drawers	5 3HE with small part tray	0 580mm	0 Standard, Handle	0 420mm
2 Mobile	3 3x Drawers V1	6 1HE Pencil Drawer Standard	1 680mm	2 Premium, no Handle	6 600mm
3 ESD Suspended	5 3x Drawers V2	7 1HE Pencil Drawer PLUS	(only suspended)	3 Premium, Handle	(non standard)
4 ESD Mobile	4 4x Drawers		2 780mm		
	0 Door, left hinges				
	1 Door, right hinges				

Options

439.100.103	Telescopic Full Extension (per drawer), load capacity: 45kg
439.100.003	Drawer Closing with SoftStop (per drawer)
439.100.303	Pencil Drawer PLUS
439.100.403	ESD Pencil Drawer PLUS
439.100.503	Electric Lock with RFID or Remote Controlled

439.100.903	Handle powder coated according to RAL Code
439.100.803	Ergonomic bevelled fronts (per container)



PROFI CONTAINER (11HE)



- Body made of 19mm thick melamine resin covered chipboard with 2mm PP plastic edge.
- Robust organizable sheet steel drawer with single drawer blocking system in HE raster (1HE = 50mm).
- 1HE pencil drawer with central lock (master-key-system) and two foldable keys.
- Mobile container with metal supported bottom plates and 4 twin casters, two with locks.
- Standard: twin casters \varnothing 50mm / max. 150kg (total).
- Pedestal container with four glides.
- Inner drawer dimensions:
Width: 327mm
Depth: 490mm (D: 580/680) / 690mm (D: 780)
Height: 80mm
- Dimensions:
Width: 420mm
Depth: 580 / 680 / 780mm
Height: 675mm (Mobile Container)
610mm (Pedestal Container)
585mm (Suspended Container)

Drawers:

- Telescopic extension on ball bearings, load capacity: 25kg, optionally available with full extension (VA), load capacity: 45kg.
- Organizable with dividers, separators or drawer inserts.
- Automatic drawer closing.
- Single drawer locking system.
- Bevelled front made of 19mm thick melamine resin covered chipboard with metal handles, nickel-plated. Optionally powder coated according to RAL-Code.

Premium Type:

- Mobile container with 75mm twin caster for max. load capacity of 300kg.
- **Telescopic full extension and SoftStop as a standard.**



Standard Mobile Container 11HE in ESD



Premium Suspended Container, handle-less with electric lock



Premium Pedestal Container, handle-less in BiColor Design



Metal Support



Metal Handles



Premium 75mm Twin Casters (300kg)



Handleless Grip Strip

PROFI Container

- Drawer fronts and top plate ergonomically bevelled
- extraordinary stable connection with casters due to metal support
- ergonomically foldable keys

A Version:

Mobile Container



Pedestal Container



Suspended Container

ESD Version to DIN EN 61340

Body made of surface - and volume conductive material, conductive metal drawers and fronts, ESD swivel casters.

**EE** Features (Drawers):

- Drawers in HE raster (1HE = 50mm)
- with door instead of drawers



32 2x 2HE + 1x 6HE VA



33 1x 2HE + 2x 4HE



42 3x 2HE + 1x 4HE



43 2x 2HE + 2x 3HE



52 5x 2HE



01 Door with left hinges



02 Door with right hinges

PROFI Container (11HE) 43 A . EE T . F B 3

A Version	EE Feature	T Depth	F Form	B Width
2 Mobile	32 2x 2HE + 1x 6HE VA	0 580mm	0 Standard, Handle	0 420mm
7 Pedestal	33 1x 2HE + 2x 4HE	1 680mm	2 Premium, no Handle	6 600mm
1 Suspended	42 3x 2HE + 1x 4HE	(only suspended)	3 Premium, Handle	(non standard)
4 ESD Mobile	43 2x 2HE + 2x 3HE	2 780mm		
8 ESD Pedestal	52 5x 2HE			
3 ESD Suspended	01 Door, left hinges (incl. 1x shelf board)			
	02 Door, right hinges (incl. 1x shelf board)			

Options

439.100.103	Telescopic Full Extension (per drawer), load capacity: 45kg	439.100.903	Handle powder coated according to RAL Code	
439.100.003	Drawer Closing with SoftStop (per drawer)			
439.100.303	Pencil Drawer PLUS	439.100.703	Fronts with 2mm PP Plastic Edge instead of bevelling (per container)	
439.100.403	ESD Pencil Drawer PLUS			
439.100.503	Electric Lock with RFID or Remote Controlled			

439.100.103: Option Telescopic Full Extension

- extension length: 535mm (depth: 580) / 735mm (depth: 780)
- load capacity: 45kg / over extension: 45mm

**439.100.003:** Option SoftStop

- self-closing drawer with SoftStop cylinders

**439.100.503:** Option Electric Lock

- with battery case for RFID or RC digital input activation



PROFI PEDESTAL CONTAINER (13HE)

- See details to body and drawers on page 196 (PROFI Containers - 11HE).
- Under bench type with four glides and a total height of 710mm.
- Side standing version with base and hidden leveling feet. Total height: 750mm.
- Depth: 580 / 780mm.
- Choose a 30mm top plate from chapter 3 to adapt the height and depth to the bench.



Under Bench




Side Standing with Top Plate

EE Features (drawers) in HE raster (1HE = 50mm)
Container with door has no pencil drawer, but 1x shelf board



PROFI Pedestal Container (13HE) 43 A EE T F V 3

A Version	EE Features	T Depth	F Form	V Type
5 Standard	22 2x 6HE VA	0 580mm	0 Standard	0 Under Bench, Width 420mm
6 ESD 	32 2x 3HE + 1x 6HE VA	2 780mm	2 DESIGN	1 Side Standing, Width 420mm
	42 3x 2HE + 1x 6HE VA			6 Under Bench, Width 600mm
	43 2x2HE + 2x 4HE			7 Side Standing, Width 600mm
	44 4x 3HE			
	52 3x 2HE + 2x 3 HE	Optionen		
	53 4x 2HE + 1x 4HE	439.100.103	Option full extension (per drawer) load capacity: 45kg	
	62 6x 2HE	439.100.003	Option drawer closing with SoftStop (per drawer)	
	01 Door, left hinges	439.100.903	Option handle powder coated according to RAL Code (per drawer)	
	02 Door, right hinges	439.100.703	Drawer fronts with 2mm PP Plastic Edge, no bevelling (per container)	



PROFI SHORT CONTAINER


- Body made of 19mm thick melamine resin covered chipboard with 2mm PP plastic edge.
- Robust organizable (Orga) sheet steel drawer with single-drawer-blocking system in HE raster (1HE = 50mm).
- Optional in ESD according to DIN EN 61340, body completely surface - and volume conductive, with conductive metal drawers and conductive fronts.



EE Features (drawers) in HE raster (1HE = 50mm)
Container with door has no pencil drawer, but 1x shelf board



PROFI Short Container 43 **A** **EE** **T** **F** **B** 3

A Version	EE Features	T Depth	F Form	B Width
1 Standard	12 1x Drawer, height: 170mm	0 580mm	0 Standard, Handle	0 420mm
3 ESD 	23 2x Drawers, height: 290mm	1 680mm	2 Premium, no Handle	6 600mm
	13 Door, left hinges, height: 340mm	2 780mm	3 Premium, Handle	(non standard)
	14 Door, right hinges, height: 340mm			
	22 1x 1HE Pencil Drawer + 1x 2HE+ 1x 3HE			
	24 1HE Extendable Tray with Full Extension + 1x 2HE + 1x 3HE			

Options

- 439.100.103** Full Extension (per drawer), load capacity: 45kg
- 439.100.003** Drawer Closing with SoftStop (per drawer)
- 439.100.903** Handle powder coated to RAL Code (per drawer)
- 439.100.703** Drawer fronts with 2mm PP Plastic Edge, no bevelling (per container)



1HE
Extendable Tray



433.221.003: 1x 1HE Pencil Drawer + 1x 2HE+ 1x 3HE



433.230.003: 2x Drawers, height: 290mm

PROFI NARROW CONTAINER

- Applicable for all container types (mobile, pedestal, suspended, 9HE, 11HE, 13HE).
- Load capacity: 25kg
- Width: 320mm.

NOTE: not available in ESD

Narrow Container Type

xxx.xxx.004



PROFI WIDE CONTAINER

- Applicable for all container types (mobile, pedestal, suspended, 9HE, 11HE, 13HE).
- Optionally in ESD according to DIN EN 61340 with surface - and volume conductive body and drawers.
- Body made of 19mm thick melamine resin covered 2mm PP plastic edge, width: 600mm.
- Wooden 1HE front with lock and small part tray, made of sheet steel, durable light grey powder coated. Inner dimensions: 490 x 340 x 25mm (WxDxH).
- Central lock (master-key-system) with 2 keys.
- Sheet steel drawers, sides with slots in 100mm raster for seperators.
Durable conductive powder coated in light grey.
Inner width: 495mm
Inner dept: 490mm (D: 580/680) / 690mm (D: 780)
Inner height: 70mm
- Telescopic extension on ball bearings with single-drawer-blocking system in HE raster (1HE = 50mm), load capacity: 25kg (optionally full extension, load capacity: 45kg).

Wide Container Type

xxx.xxx.x6x

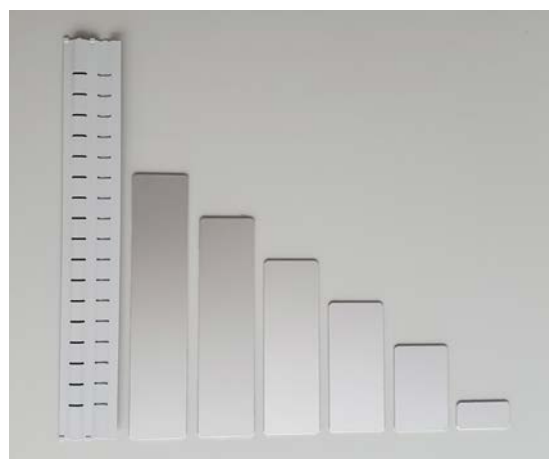


SEPERATORS & DIVIDERS FOR WIDE CONTAINER

- Seperators made of sheet steel, durable conductive powder coated in light grey, with stot raster for dividers in 12,8mm distance.
Dimensions: 500 x 70mm (WxD).
- Dividers made of anodized aluminium 2mm.
Dimensions: 18,5mm x 70mm (WxH).

PROFI Seperators & Dividers for Wide Container

439.001.303	Seperator W: 600mm
439.003.603	Divider W: 333mm
439.003.503	Divider W: 277,5mm
439.003.403	Divider W: 222mm
439.003.303	Divider W: 166,5mm
439.003.203	Divider W: 111mm
439.003.103	Divider W: 37mm



PC CONTAINER

- Body made of 19mm thick melamine resin covered chipboard with 2mm PP plastic edge.
- Optionally with detachable service flap and lock.
- Rear side with cable outlet.
- Suspended containers with mounting holes in the top.
- Pedestal containers with glides at the lower side.
- Width: 270mm
Depth: 580 / 680 / 780mm
Height: 585mm (suspended container)
710mm (pedestal container)
- Optional with wooden - or glass door and metal hinges, handle and lock with 2 keys (master-key-system).



PC Container 43 A 0 R T 003		
A Version	R Type	T Depth
1 Suspended	0 no Service Flap	0 580mm
5 Pedestal	3 Service Flap, right side	1 680mm
	4 Service Flap, left side	2 780mm

Door for PC Container 43 A .03 M . F 03		
A Version	M Type	F Form
1 Suspended	8 Wooden, 19mm	0 with Handle
5 Pedestal	9 Safety Glass, 6mm	2 Handleless
439.100.703 Door with 2mm PP Plastic Edge, no bevelling		



OPTION STORAGE FOR STANDARD TRAINING SYSTEMS

- Pedestal -, suspended - and mobile containers can be fully or partly equipped with slotted mats for the storage of training systems in A4 (297mm height).
- Containers WITH drawers are equipped with an extra wall for adaption to training system size.
- Containers WITHOUT drawers have an adapted width of 340mm, which means that on height of the hinges, no training system can be inserted.

Option Storage for Standard Training Systems	
439.600.003	Storage Option WITHOUT Drawers (340mm)
439.600.103	Storage Option WITH Drawers (420mm)



PROFI SEPERATORS

- For standard and narrow containers; made of double sheet steel with black powder coating. Sides with latches and bores for acceptance of dividers.
- For wide containers made of 2mm sheet steel with durable conductive powder coating in light grey.

PROFI Seperator

439.001.103	for Standard Container 327x10x77mm (WxDxH)
439.001.203	for Narrow Container 227x10x77mm (WxDxH)



PROFI DIVIDER

- Only for standard and narrow containers.
- Made of sheet steel, durable powder coated, sides with latches for fixation, height: 77mm.

PROFI Divider

439.002.103	A4 (310mm)
439.002.203	A5 (210mm)
439.002.303	A6 (150mm)
439.002.403	A7 (110mm)



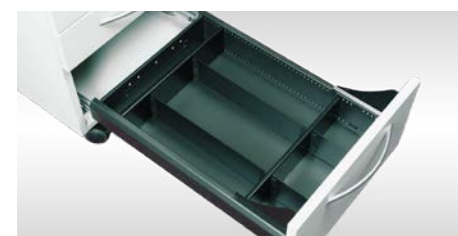
PROFI UNIVERSAL PARTITION

Set consisting of:

- 2x Seperators
- 2x Dividers A4
- 2x Dividers A7

PROFI Universal Partition

439.002.003



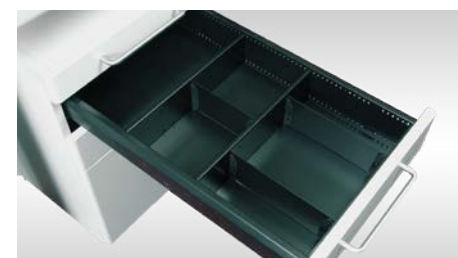
PROFI PARTITION FOR CONTAINER 780MM

Set consisting of:

- 2x Seperators
- 1x Dividers A6
- 2x Dividers A4

PROFI Partition for Container 780mm

439.002.023



PROFI PARTITION FOR CONTAINER 580MM

Set consisting of:

- 2x Seperators
- 1x Dividers A5
- 1x Dividers A6
- 1x Dividers A7

PROFI Partition for Container 580mm

439.002.043



PROFI FILING FRAME FOR A4 STANDARD FOLDERS

- Steel filing frame, attachable to the 6HE drawers, container width: 420mm.



PROFI Filing Frame for Standard A4 Folders

439.004.103	for Container Depth 580mm
439.004.203	for Container Depth 780mm
439.004.300	Seperator for Filing Frame

PROFI DRAWER INSERT

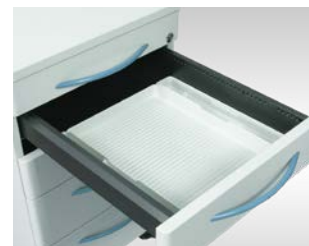
- Trays made of light grey plastics, dimensions: 330 x 326 x 30mm (WxDxH).

PROFI Drawer Insert

439.007.100	Drawer Insert, 10 Compartments
439.008.100	Drawer Insert, 1x DIN A4, 3 Small Compartments



439.007.100



439.008.100

PROFI DRAWER INSERT

- Made of deep-drawn plastics (WxDxH).

Type 1: Dimensions: 327 x 475 x 45mm
4x Compartments: 202 x 75mm
4x Compartments: 262 x 75mm

4x

Type 2: Dimensions: 327 x 195 x 45mm
3x Compartments: 188 x 102mm

Type 3: Dimensions: 327 x 240 x 45mm
5x Compartments: 154 x 59mm
5x Compartments: 70 x 59mm

Type 4: Dimensions: 327 x 240 x 45mm
15x Compartments: 73 x 59mm



439.050.100



439.050.200



439.051.100



439.051.200

PROFI Drawer Inserts

439.050.100	Type 1 (depth: 475 / 8 compartments)
439.050.200	Type 2 (depth: 195 / 3 compartments)
439.051.100	Type 3 (depth: 240 / 10 compartments)
439.051.200	Type 4 (depth: 240 / 15 compartments)

SPARE PARTS FOR PROFİ CONTAINER

- Master -, group - or single key systems are possible.
- A service key is required for changing locks.

Spare Parts for PROFİ Container

499.700.000	Key Replacement (please state lock No.)
499.700.010	Lock with 2 Keys
499.700.020	Master Key for Locking System 7000
499.700.030	Service Key for Locking System 7000



TOOL SET ELECTRONIC

Hard foam insert 325x490mm with:

- VDE Needle Nose Plier
- VDE Combination Plier
- VDE Universal Wire Cutter
- VDE Wire Stripper
- Set of Warding Files, Wooden Handle, 6pcs.
- VDE Slot Screw Driver Set, 4pcs.
- VDE Cross Slot Screw Driver 0 – 2, 3pcs.
- Socket Wrench, long, 4 – 8, 6pcs.
- Electrician Tweezer

439.600.200

Tool Set ELECTRONIC



TOOL SET VDE

Hard foam insert 325x490mm with:

- VDE Voltage Tester
- VDE Round Nose Plier
- VDE Universal Wire Cutter
- VDE Combination Plier
- VDE Wire Stripper
- VDE Pipe - and Water Pump Plier
- VDE Screw Driver Set 4pcs.
- VDE Screw Driver Set, 0 – 3, 4pcs.
- Pocket Rule
- VDE Stripping Knife
- VDE Adjustable End Wrench

439.600.300

Tool Set VDE



TOOL SET ESD

Hard foam insert 325x490mm with:

- ESD Wire Cutter, 2pcs.
- ESD Flat Nose Plier
- ESD Needle Nose Plier
- ESD Electrician Slot Screw Driver Set, 4pcs. 0 – 4
- ESD Electrician Cross Slot Screw Driver 000 – 1
- ESD Electrician TORX Screw Driver 1 – 7
- ESD Electrician Tweezer, straight & bent nose
- Pocket Rule

439.600.400

Tool Set ESD



Tool Sets suitable for PROFI Containers,
depth: 580mm / 680mm / 780mm.
Drawer full extension recommended!

TOOL SET UNIVERSAL

Hard foam insert, 2x 325x490mm with:

- Metal Saw Bow
- Adjustable End Wrench, 2pcs.
- Engineer Hammer
- Flat -, Triangular -, Half-Round File Hieb 2
- Water Pump Plier
- Wire Cutter
- Wire Stripper
- Flat Nose Plier, straight and bent nose
- Combination Plier
- Voltage Tester
- Electrician Screw Driver, 2pcs.
- Slot Screw Driver, 2pcs.
- Cross Slot Screw Driver Carburetor 2
- Slot Screw Driver Carburetor
- Cross Screw Driver 1 – 3
- Pocket Rule

439.600.100

Tool Set UNIVERSAL



TOOL SET MECHANIC

Hard foam insert, 2x 325x490mm with:

- Warding File, 6pcs.
- File Brush
- Flat -, Triangular -, Half-Round File Hieb 2
- Flat Scraper 276-200mm
- Three-Square Hollow Scraper 274-200mm
- Engineer Hammer
- Plastic Hammer
- Precisson Caliper
- Metal Saw Bow
- Flat Chisel, octagon 262-125mm, 262-150mm
- Pin Punch
- Punch 120x4mm
- Drift Punch
- Scribbling tool, bent
- Pocket Rule

439.600.500

Tool Set MECHANIC



TOOL SET SOCKET WRENCH

Hard foam insert 325x490 with:

- Lever Change Ratchet 1/2" ,1/4"
- Socket Wrenches 1/4" 4 - 14
- Hexagon Screwdriver Bits 1/4" 3 – 6 and 8
- Slotted Screwdriver Bits 1/4" 4, 5, 5, 6,5
- Cross Screwdriver Bits 1/4" 1-3
- TORX Schrewwdriver Bits 1/4" 8-10, 20, 25, 27, 30
- Drive Handle 1/4"
- Sliding Bar 1/4"
- Extension 1/4", 50mm, 150mm
- Cardan Joint 1/2", 1/4"
- Hexagon Screwdriver Bits 1/2" 10-19, 22, 24, 27, 30, 32
- Sliding Bar 1/2"
- Extension 1/2", 125mm, 250mm
- Pocket Rule

439.600.600

Tool Set SOCKET WRENCH



SPARES FOR PROFI CONTAINER

Spares for PROFI Container	
499.700.150	Partial Extension (Pair); Container Depth: 580mm
499.700.170	Partial Extension (Pair); Container Depth: 780mm
499.700.250	Full Extension (Pair); Container Depth: 580mm
499.700.270	Full Extension (Pair); Container Depth: 780mm
499.700.500	Replace Casters (Set) 50mm incl. Support
499.700.550	Replacement ESD Casters (Set) 50mm incl. Support
499.700.600	Replace Design Casters (Set) 75mm
499.700.650	Replace Design ESD Casters (Set) 75mm



SPARES FOR EASY CONTAINER

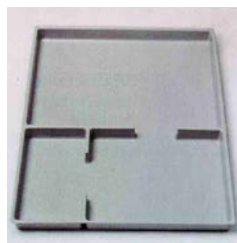
- The lock is mounted in the containers' side panel and can be replaced by detaching the leaf spring.

Spares for EASY Container	
299.700.000	Spare Key for Lock System M70, M71 or M78 (please state the key number)
299.700.010	Replacement Lock with 2 Keys
299.700.020	Master Key for Lock System M70/71
299.700.030	Master Key for Lock System M78

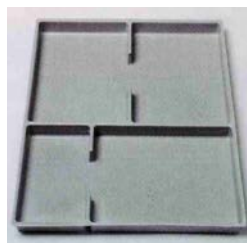


EASY DRAWER INSERT

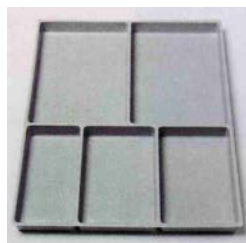
- Made of deep-drawn plastics in grey.
- Dimensions: 462 x 560mm (WxD).



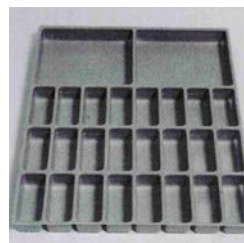
192.011.200



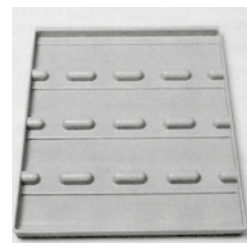
192.011.300



192.011.400



192.011.500



192.011.800

299.131.300 /
192.011.600
(no Tools)299.132.300 /
192.011.700
(with Tools)

EASY Drawer Inserts			
192.011.200	A3 + A4	192.011.700	Inserts for Mechanic Tools (2part - no tools included)
192.011.300	3x A4	192.011.800	Tray for Training Boxes
192.011.400	2x A4 + 2x A5	299.131.300	Electrician Tools 27-parts)
192.011.500	24x Small Parts + Compartments	299.132.300	Mechanic Tools 39parts
192.011.600	Insert for Electrician Tools (no tools included)		

PROFI STORING TOWER

- Outer - and inner body amde of 19mmthick melamine resin covered chipboard, completely assembled.
- Outer body with leveling feet and 13mm thick decorative rear panel.
- Surrounding rubber lip for dust protection.
- Solid runner system with full extension and damping system, two fixed casters.
- 130kg load capacity according to EN15338 level 2.
- Front with nickel-plated metal handle or grip strip and central lock (master-key-system) with 2x foldable keys.

Extensional Tray

Plastic tray in alu optics 376x354mm. With metal runners, for under-shelf installation. Load capacity: 6kg.



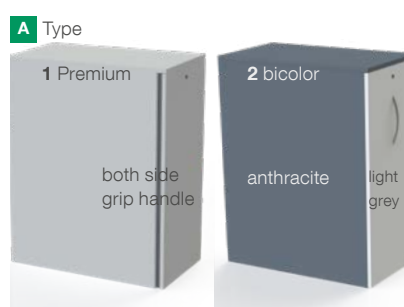
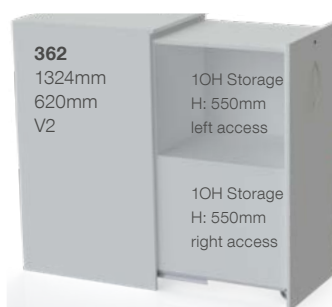
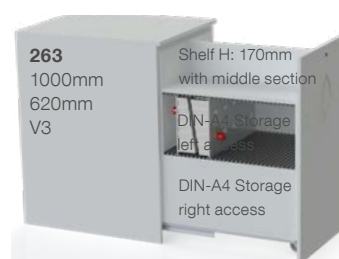
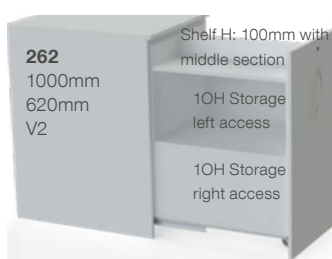
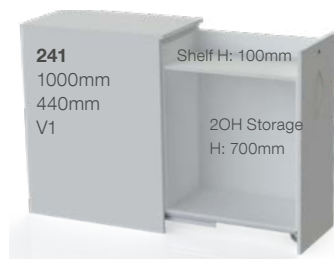
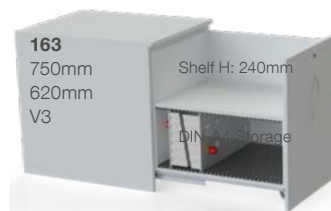
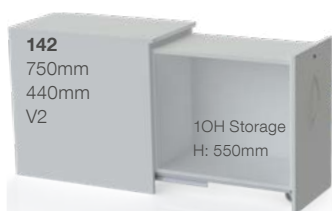
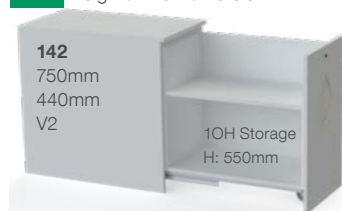
430.000.100



430.000.200



HBV Height / Width / Version



PROFI Storing Tower

430. HBV . T Z A

HBV	Height / Width / Version	T	Depth (useable)	Z	Opening	A	Type
141	H: 750mm / W: 440mm / V1	0	800mm (660mm)	0	left access	0	Standard light grey
142	H: 750mm / W: 440mm / V2	1	900mm (760mm)	1	right access	1	Premium light grey
163	H: 750mm / W: 620mm / V3	2	1000mm (760mm)	2	both sided	2	Standard bicolor
241	H: 1000mm / W: 440mm / V1	Accessory					
242	H: 1000mm / W: 440mm / V2	480.307.41A	Wooden Shelf 19mm light grey, dim. 660 x 360mm (A=0: Standard / A=5: ESD)				
262	H: 1000mm / W: 620mm / V2	480.307.42A	Wooden Shelf 25mm light grey, dim. 660 x 360mm (A=0: Standard / A=5: ESD)				
263	H: 1000mm / W: 620mm / V3	480.308.41A	Wooden Shelf 19mm light grey, dim. 760 x 360mm (A=0: Standard / A=5: ESD)				
341	H: 1324mm / W: 440mm / V1	480.308.42A	Wooden Shelf 25mm light grey, dim. 760 x 360mm (A=0: Standard / A=5: ESD)				
342	H: 1324mm / W: 440mm / V2	480.308.400	Sheet Steel Shelf 24mm light grey, dim. 760 x 360mm (ESD powder coating)				
362	H: 1324mm / W: 620mm / V2	430.000.100	Extendable Compartment Tray 376 x 354 x 40mm (WxDxH)				
		430.000.200	Extendable Tray 376 x 354 x 60mm (WxDxH)				

NO COMPROMISES, THIS STANDS ALL BURDENS

You need a container for roughest applications? Be on the safe side with the sheet steel containers. The containers are perfect to store heavy tool sets close to your workbench. In following pages you will find suitable partitions for efficiently organized storage, too. The containers are available for suspended, mobile or pedestal use.



DETAILS TO SHEET STEEL CONTAINERS

- **High Stability and Smooth Drawer Running**
differential extension without crossbar with load capacity 75kg (ESD 50kg).
200kg load capacity on demand.
- **Maximum Drawer Usability**
full drawer height (same as drawer front) and full extension.
- **Perfect Safety**
single drawer blocking system and pull-out safety as a standard feature.
- **Structured Arrangement and Organization**
various separators and dividers available, drawers with perforation and slots for organizing material.
- **Professional Labeling**
drawer fronts with labeling tags and freely available software for professional labeling.



SHEET STEEL CONTAINERS, SUSPENDED AND MOBILE

- Completely closed and welded sheet steel housing, durable powder coated.
- Sheet steel drawers with full extension, max. 75kg.
- Drawer front in mm, with whole width handle strip (with label holder - labeling software on demand).
- Side panels of drawers in same height as drawer front, the drawers are slotted for installation of dividers in 17mm raster.
- Drawer blocking mechanism, prevents the unintended opening of drawers. Blocking mechanism is removable if e.g. used as suspended container.
- Total drawer height: 450mm.
- Replacable cylinder lock with 2 keys.
- Code- and RFID lock on demand.
- Inner dimensions of drawers:
Width: 306 / 459mm (at 411 / 564mm)
Depth: 459 / 612mm (at 572 / 725mm).

ESD Version:

- Conductive finishing.
- Mobile containers with ESD casters.
- Load capacity of drawers, max. 50kg.



F Form



Mobile Containers

- 4 swivel casters (75mm), two with brakes
- Upper side with 20mm stop edge (3-sided) with rilled rubber mat and handle bar
- Height: 670mm



Suspended Container

- Upper side with four holes for bench fixation
- Height: 533mm

E Features (drawers)



1x 100 + 1x 150 + 1x 200



2x 50 + 2x 100 + 1x 150





3x 50 + 4x 75



9x 50

Sheet Steel Container

49 F . B 0 E . 0 T A

F Form	B Width	E Features	T Depth	A Version
2 Mobile	4 411mm	1 1x 50 + Door and Shelfboard	5 572mm	0 light grey RAL7035
3 Suspended	5 564mm	3 1x 100 + 1x 150 + 1x 200	7 725mm	1 anthracite RAL7016
		5 2x 50 + 2x 100 + 1x 150		5 ESD light grey 
		7 3x 50 + 4x 75		6 ESD anthracite 
		9 9x 50		

PEDESTAL SHEET STEEL CONTAINER

- Completely closed and welded sheet steel housing, durable powder coated.
- Sheet steel drawers with full extension, max. 75kg.
- Drawer front in mm, with whole width handle strip (with label holder - labeling software on demand).
- Side panels of drawers in same height as drawer front, the drawers are slotted for installation of dividers in 17mm raster.
- Replacable cylinder lock with 2 keys.
- Code- and RFID lock on demand.
- Inner dimensions of drawers:
Width: 306 / 459mm (at 411 / 564mm)
Depth: 459 / 612mm (at 572 / 725mm).
- Total drawer height: 600mm.
- Height: 700mm.

ESD Version:

- Conductive finishing.
- Load capacity of drawers: max. 50kg



EE Features (drawers)



2x 75 + 1x 150 + 1x 300



6x 100



8x 75





7x 50 + 2x 75 + 1x 100



12x 50

Pedestal Sheet Steel Container 495. B EE.0 T A


B Width	EE Features	T Depth	A Version
4 411mm	02 2x 75 + 1x Door with Shelfboard	5 572mm	0 light grey RAL7035
5 564mm	04 2x 75 + 1x 150 + 1x 300	7 725mm	1 anthracite RAL7016
	06 6x 100		5 ESD light grey 
	08 8x 75		6 ESD anthracite 
	10 7x 50 + 2x 75 + 1x 100		
	12 12x 50		

BASE FOR PEDESTAL SHEET STEEL CONTAINER

- The base is for height adaption, in combination with a 30mm bench top the standard bench height of 780mm is achieved.
- Sheet steel / black finishing.
- Height: 50mm.



Base for Pedestal Sheet Steel Container 495. B 00. T 0 A

B Width	T Depth	A Version
4 411mm	5 572mm	0 Standard
5 564mm	7 725mm	5 ESD 

SHEET STEEL SHORT CONTAINER

- See the details to sheet steel containers on page 213.
- Total drawer height: 200mm.
- Height: 283mm.

EE Features (drawers)



1x 50 + 1x 150





1x 50 + 2x 75



4x 50

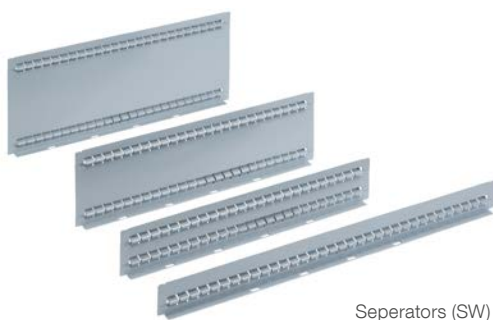


Sheet Steel Short Container 494. B EE .0 T A

B Width	EE Features	T Depth	A Version
4 411mm	02 1x 50 + 1x 150	5 572mm	0 light grey RAL7035
5 564mm	03 1x 50 + 2x 75	7 725mm	1 anthracite RAL7016
	04 4x 50		5 ESD light grey 
			6 ESD anthracite 

PARTITION SET FOR SHEET STEEL CONTAINERS

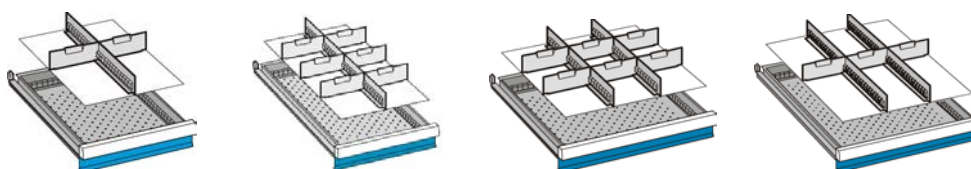
- Sets of separators and dividers in 17mm raster. Separators and dividers made of sheet steel.
- Suitable to the different container widths, - depths and drawer heights.



Separators (SW)



Dividers (TB)



Partition Set for Sheet Steel Containers

Width x Depth	411 x 572mm	411 x 725mm	564 x 572mm	564 x 725mm
Partition Set	1x SW + 2x TB	1x SW + 6x TB	2x SW + 6x TB	2x SW + 3x TB
front height: 50mm	496.080.643	496.080.629	496.080.671	496.100.275
front height: 75mm	496.080.644	496.080.630	496.080.672	496.100.276
front height: 100mm	496.080.645	496.080.631	496.080.673	496.100.277
front height: 150mm	496.080.646	496.080.632	496.080.674	496.100.278

PLASTIC BINS FOR SHEET STEEL CONTAINER

- Set of plastic bins made of polysyrol (red). ESD version is made of conductive polypropylen (black).
- Suitable for the different container widths, - depths and drawer heights.



Plastic Bins for Sheet Steel Containers					
Dimensions: H x W x D	Standard / ESD	Dimensions: H x W x D	Standard / ESD	Dimensions: H x W x D	Standard / ESD
26 x 75 x 75mm:	480.119.000 / 480.119.005	46 x 75 x 75mm:	480.116.000 / 480.116.005	71 x 150 x 75mm:	480.384.000 / 480.384.005
26 x 150 x 75mm:	480.118.000 / 480.118.005	46 x 150 x 75mm:	480.115.000 / 480.115.005	71 x 150 x 150mm:	480.383.000 / 480.383.005
26 x 150 x 150mm:	480.117.000 / 480.117.005	46 x 150 x 150mm:	480.114.000 / 480.114.005		

ANTI-SLIP MAT FOR SHEET STEEL DRAWER

- Rubber mat for the safe storage of sensitive components.
- Suitable as drawer inlay.
- Nylon / PVC meshed mat in anthracite color.



Anti-Slip Mat		496.30 B .0 T 0	
B Width		T Depth	
4 411mm		5 572mm	
5 564mm		7 725mm	



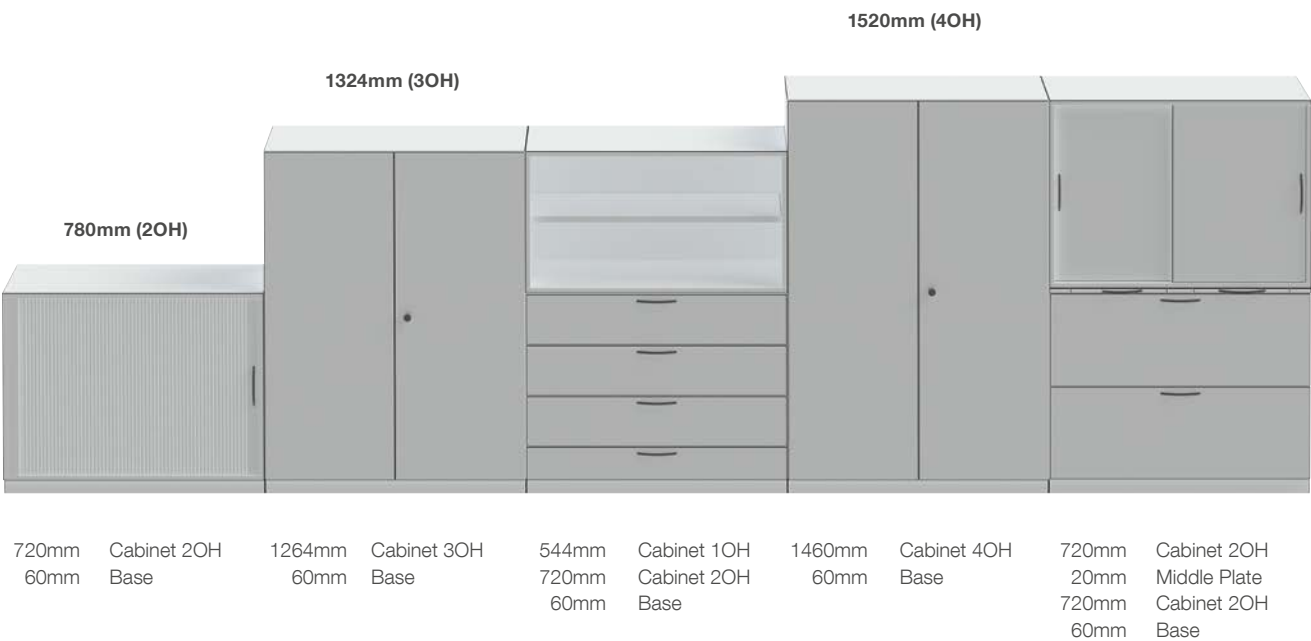


CHAPTER 8: CABINETS

- | | | | |
|------------|---|------------|--|
| 217 | Cabinet Base, Wood and Steel | 229 | Integrated Drawer and File Frame |
| 218 | Cabinet Casters - and Drag Base | 230 | Drawer Cabinet |
| 220 | Cabinet with Hinged Door | 231 | Drawer Separators and - Dividers |
| 221 | Compartment Cabinet and Sliding Door Cabinet | 232 | File Cabinet and Middle Plate |
| 222 | Glass Door and Partial Glass Door for Cabinet | 233 | Ladder and Rail for Cabinet Wall |
| 223 | Roller Shutter Cabinet and Shelf | 234 | Configured Cabinets for Training Systems |
| 224 | Middle Wall and Corner Cabinet | 235 | Didact Storage Cart and Charging Cabinet |
| 225 | Shelf Board, Wooden and Sheet Steel | 237 | Sheet Steel Cabinet |
| 226 | Telescopic Shelf Board and Book End | 238 | Separators for Sheet Steel Drawers |
| 228 | Wardrobe Rail, Shelf Board for Training Systems,
Cable Support for Cabinet | 239 | Sheet Steel Cabinet |
| | | 240 | Sheet Steel Shelf and - Sliding Door Cabinet |

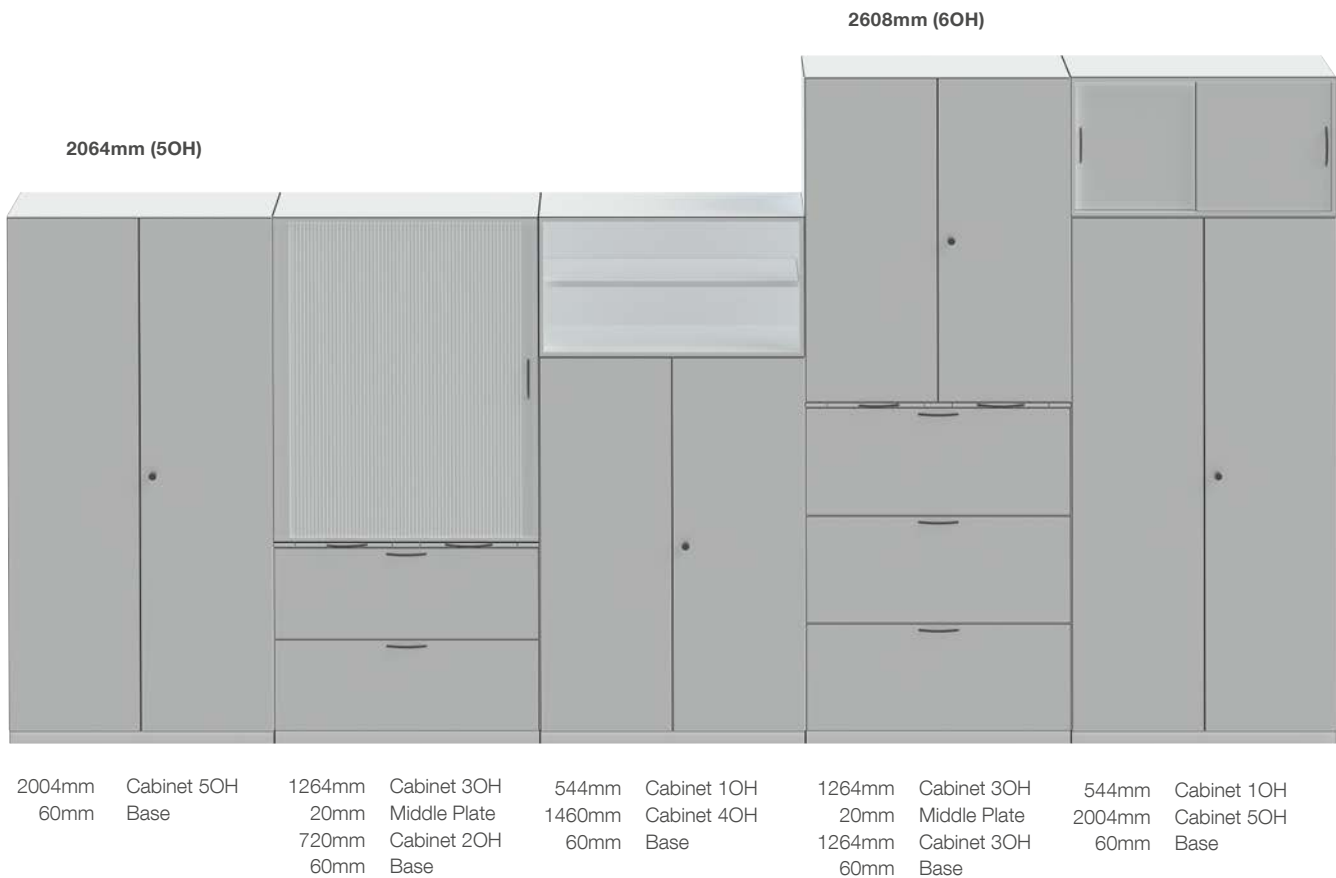
COUNTLESS POSSIBILITIES TO GET THINGS STORED

The hera cabinet program bases on an elaborated system, where all available modules can be flexibly combined in order to achieve best storing results for different equipment. The cabinets are highly durable and will not suffer from several disassemblies and re-assemblies for relocating.



The modular Cabinet System

- 4 widths: 420mm, 800mm, 1000mm, 1200mm
- 3 depths: 430mm, 525mm, 625mm
- 5 heights:
1OH = 544mm, 2OH = 720mm,
3OH = 1264mm, 4OH = 1460mm, 5OH = 2004mm



DECORS



light grey decor



beech decor

AVAILABLE DECORS

ESD Version

- surface - and volume conductive
- suitable as room divider



beech

maple

white



light grey



pebble



FUNCTIONAL DECORS



Magnetic



Chalkboard



Whiteboard

CABINET BASE, WOOD

- Surrounding frame, 19mm thick, melamine resin covered chipboard with 2mm PP plastic edge.
- Metal leveling screws, adjustable from inside the cabinet. ESD cabinets with conductive connection between cabinet and base.
- Fully assembled.



Leveling screw adjustment

Cabinet Base, Wood 480.0 **BB** **T** **H** **A**

BB Width

04	420mm
08	800mm
10	1000mm
12	1200mm
13	1300mm (only H: 60mm)
16	1580mm

T Depth

0	595mm
4	400mm
5	495mm
6	645mm (only H: 60mm)

H Height

0	60mm
3	30mm

A Version

0	Standard
5	ESD 

CABINET BASE, STEEL

- Surrounding steel frame made of folded sheet steel, durable conductive powder coated in light grey.
- Metal leveling screws, adjustable from inside the cabinet. ESD cabinets with conductive connection between cabinet and base.
- Fully assembled.
- Corrosion protected even in humid areas.
- Height: 50mm.

Cabinet Base, Steel 480.0 **BB** **T** **55**

BB Width

04	420mm
08	800mm
10	1000mm
12	1200mm
13	1300mm
16	1580mm

T Depth

0	595mm
4	400mm
5	495mm
6	645mm



CABINET BASE WITH CASTERS

- Surrounding heavy duty frame made of sheet steel, durable light grey powder coated.
- Frame height: 20mm; with thread inserts for the acceptance of the casters.
- Fully assembled.

Set of Casters Ø: 75mm, two with brake:

- Load capacity 80kg (per caster).
- Total height: 90mm.



Set of Casters Ø: 100mm two with brake and position lock:



- Load capacity 100kg (per caster).
- Total height: 120mm.



Set of Lifting Casters:

- Heavy duty polyamid caster 63mm.
- Load capacity 500kg (per caster).
- Total height: 104mm.



Cabinet Base with Casters		480.0 BB . T RR
BB Width	T Depth	RR Casters
08 800mm	0 595mm	60 Set of Casters Ø: 75mm / load capacity 80kg (per caster)
10 1000mm	5 495mm	65 Set of ESD Casters Ø: 75mm / load capacity 80kg (per caster) 
12 1200mm	6 645mm	70 Set of Casters Ø: 100mm / load capacity 100kg (per caster)
13 1300mm		75 Set of ESD Casters Ø: 100mm / load capacity 100kg (per caster) 
16 1580mm		80 Set of Lifting Casters Ø: 63mm / load capacity 500kg (per caster)

OPTION DRAG BASE FOR HINGED DOOR CABINET

The drag base is applicable for cabinets without bottom plate, e.g. if the storage item should be wheeled in.

- Stabilized side panels with feet and fixing brackets OR bottom plate.
- Door with 60mm base cover.



Option Drag Base for Hinged Door Cabinet 480.090.000

GET MORE OF YOUR ROOM

You have high rooms and need every inch of it? The modular cabinet system allows you to store in up to 3m height. Each cabinet can be added by a top cabinet and the ladder with cabinet rail makes sure you have easy and safe access to the higher levels.



HINGED DOOR CABINET

- Body made of 19mm melamine resin covered chipboard in light grey.
- Side panels with 32mm hole line for the flexible equipment with shelfboards.
- Solid decorative rear wall (13mm thick).
- Dust protected due to surrounding rubber lip.
- 270° opening metal hinges.
- Right door with espagnolette lock (master-key-system) and handle knob.
- Left door with stopper and rubber lip.



Modular hinged door cabinet without base and shelf boards



Configured cabinet for A4 standard folders



master-key-system with replaceable core




suitable for storing boxes in Euro standard (600x400mm)



270° opening metal hinges



surrounding rubber lip for dust protection

Hinged Door Cabinet 481. H BB T F A				
H Height (excl. base)	BB Width	T Depth	F Type	A Version
1 1OH (544mm)	04 420mm 1-door	0 625mm	0 1-door or 2-door, right hinges	0 Standard
2 2OH (720mm)	08 800mm 2-door	4 430mm		5 ESD 
3 3OH (1264mm)	10 1000mm 2-door	5 525mm	1 1-door, left hinges	
4 4OH (1460mm)	12 1200mm 2-door	6 675mm (for Euro Boxes)		
5 5OH (2004mm)	13 1300mm 2-door for Euro Boxes			

CONFIGURED CABINET FOR A4 STANDARD FOLDERS


- Hinged door cabinet for 5 levels of A4 standard folders.
- Incl. 4 sheet steel shelf boards in OH raster (folder height). Durable powder coated in light grey. Load capacity: 125kg/m²; height: 24mm.
- Incl. sheet steel base with leveling screws, durable light grey powder coated. Base height: 50mm.
- Total height: 2054mm.

Configured Cabinet for A4 Standard Folder 488.0 BB T 00			
BB Width		T Depth	
08 800mm		0 625mm	
10 1000mm		4 430mm	
12 1200mm		5 525mm	

COMPARTMENT CABINET

- Body made of 19mm melamine resin covered chipboard.
- Sides and middle wall with 32mm hole line.
- Solid decorative rear wall (13mm thick).
- Dust protected due to surrounding rubber lip.
- 180° opening metal hinges.
- Doors with hinges on the right side, with lock (master-key-system) and handle knob.


Compartment Cabinet 487. **H** **BB** **T** **0** **A**

H Height (excl. base)	BB Width	T Depth	A Version
2 2 Rows (720mm)	08 800mm	0 625mm	0 Standard
3 3 Rows (1264mm)	12 1200mm	4 430mm	5 ESD 
		5 525mm	

SLIDING DOOR CABINET

- Body made of 19mm melamine resin covered chipboard.
- Side panels with 32mm hole line for the flexible equipment with shelfboards.
- Solid decorative rear wall (13mm thick).
- Easy running plastic roller guide.
- Pushlock (master-key-system) with metal handles.

Sliding Door Cabinet 482. **H** **BB** **T** **0** **A**

H Height (excl. base)	BB Width	T Depth	A Version
1 1OH (544mm)	08 800mm	0 625mm	0 Standard
2 2OH (720mm)	10 1000mm	4 430mm	5 ESD 
3 3OH (1264mm)	12 1200mm	5 525mm	
4 4OH (1460mm)	16 1580mm		
5 5OH (2004mm)			



OPTION SAFETY GLASS DOORS FOR CABINET

- Option for cabinets with hinged doors or sliding door with 6mm thick clear safety glass.

Option Safety Glass Doors		481. H BB .050	
H Height		BB Width	
1 1OH 544mm	4 4OH 1460mm	04	420mm
2 2OH 720mm	5 5OH 2004mm	08	800mm
3 3OH 1264mm		10	1000mm
		12	1200mm



OPTION DOORS WITH SAFETY GLASS INLAYS FOR CABINET

- Option for cabinets with hinged doors or sliding doors.
- Wooden doors with 6mm thick clear safety glass inlays.

Option Partial Safety Glass Doors		481. H BB .060	
H Height		BB Width	
1 1OH 544mm	4 4OH 1460mm	04	420mm
2 2OH 720mm	5 5OH 2004mm	08	800mm
3 3OH 1264mm		10	1000mm
		12	1200mm



Safety Glass Doors



Doors with Safety Glass Inlays



Corner Cabinet with Safety Glass Inlays

ROLLER SHUTTER CABINET

- Body made of 19mm thick melamine resin covered chipboard.
- Side panels with 32mm hole line for the flexible equipment with shelfboards.
- Solid decorative rear wall (13mm thick).
- Lamella shutter, rolling up at the side (usable width of cabinet is reduced by 200mm).
- Pushlock (master-key-system) with metal handles.



Roller Shutter Cabinet, wall mount

Roller Shutter Cabinet 483. **H** **BB** **T** **0** **A**

H Height (excl. base)

1	1OH (544mm)	3	3OH (1264mm)
2	2OH (720mm)	4	4OH (1460mm)


BB Width

08	800mm
10	1000mm
12	1200mm

T Depth

0	625mm
4	430mm
5	525mm

A Version

0	Standard
5	ESD 

SHELF

- Body made of 19mm thick melamine resin covered chipboard.
- Side panels with 32mm hole line for the flexible equipment with shelfboards.
- Solid decorative rear wall (13mm thick).

Shelf 484. **H** **BB** **T** **0** **A**

H Height (excl. base)

1	1OH (544mm)	3	3OH (1264mm)
2	2OH (720mm)	4	4OH (1460mm)
		5	5OH (2004mm)


BB Width

04	420mm	12	1200mm
08	800mm	13	1300mm
10	1000 mm		(for Euro Boxes)

T Depth

0	625mm
4	430mm
5	525mm
6	675mm (for Euro Boxes)

A Version


0	Standard
5	ESD 

OPTION MIDDLE WALL

- Recessed middle wall for all cabinets with 2 doors, roller shutter cabinets and shelves with a total width of 800, 1000 and 1200mm.
- 19mm thick, melamine resin covered chipboard with 32mm hole line.



Option Middle Wall 480.10 H T 0 A

H Height	T Depth	A Version
1 1OH 544mm 4 4OH 1460mm	0 562mm (cabinet depth: 625mm)	0 Standard
2 2OH 720mm 5 5OH 2004mm	4 367mm (cabinet depth: 430mm)	5 ESD 
3 3OH 1264mm	5 462mm (cabinet depth: 525mm)	

OPTION WALL FIXATION FOR 1OH AND 2OH CABINETS AND SHELVES

- This option holds the preparation and accessory for wall fixation of all 1OH and 2OH cabinet types and shelves.
- Wall fixation with adjustment screw for an easy alignment in height and depth.
- Load capacity: max. 120kg.



Option Wall Fixation for Cabinet 480.091.000

CORNER CABINET AND - SHELF

- Body made of 19mm thick melamine resin covered chipboard, completely assembled.
- Incl. base (60mm) with metal leveling screws, adjustable from inside the cabinet.
- Incl. wooden shelfboards, height adjustable in OH raster.
- 1-door or 2-door cabinet with metal hinges, espagnolette lock (master-key-system) and handle knob.
- Dimensions: 1000 x 1000mm.
Front: 500mm (D: 625)
650mm (D: 525)
800mm (D: 435).



Corner Cabinet and - Shelf 48 F H 50 T 0 A

F Type	H Height	T Depth	A Version
0 Corner Shelf	1 1OH 544mm 4 4OH 1460mm	0 625mm	0 Standard
1 1-Door Corner Cabinet	2 2OH 720mm 5 5OH 2004mm	4 430mm	5 ESD 
2 2-Door Corner Cabinet	3 3OH 1264mm	5 525mm	

WOODEN SHELFBOARD

- Shelfboard for hinged door -, sliding door, roller shutter cabinets and shelves, incl. 4 shelf clips.
- Melamine resin covered chipboard with 2mm PP plastic edge.
- Load capacity: 60kg/m² (19mm thick)
90kg/m² (25mm thick)



Metal Shelf Clip

Wooden Shelfboard 480.3 **BB** **T** **S** **A**

BB Width

03 370mm (for W: 800-Cabinets with Middle Wall)

04 380mm (for W: 420-Cabinets)

05 470mm (for W: 1000-Cabinets with Middle Wall)

06 570mm (for W: 1200-Cabinets with Middle Wall and W: 800-Roller Shutter Cabinets)

08 760mm (for W: 800-Cabinets and W: 1000-Roller Shutter Cabinets)

10 960mm (for W: 1000-Cabinets and W: 1200-Roller Shutter Cabinets)

12 1160mm (for W: 1200-Cabinets)

T Depth

0 560mm

4 365mm

5 460mm

S Thick

1 19mm

2 25mm

A Version

0 Standard

5 ESD 

SHEET STEEL SHELFBOARD

- Heavy duty shelfboard for hinged door -, sliding door -, roller shutter cabinets and shelves, incl. 4 shelf clips.
- Very sturdy due to 3fold bent front - and rear edges. >= 900mm with extra reinforcement.
- Made of sheet steel with durable conductive powder coating in light grey.
- Load capacity: 125kg/m².
- Height: 24mm.



extra reinforcement for highest load capacity

Sheet Steel Shelfboard

- load capacity 125kg/m²
- durable conductive powder coating

Shelfboard 480.3 **BB** **T** 00

BB Width

03 370mm (for W: 800-Cabinets with Middle Wall)

04 380mm (for W: 420-Cabinets)

05 470mm (for W: 1000-Cabinets with Middle Wall)

06 570mm (for W: 1200-Cabinets with Middle Wall and W: 800-Roller Shutter Cabinets)

08 760mm (for W: 800-Cabinets and W: 1000-Roller Shutter Cabinets)

10 960mm (for W: 1000-Cabinets and W: 1200-Roller Shutter Cabinets)

12 1160mm (for W: 1200-Cabinets)

13 1260mm (for W: 1300-Cabinets for Euro Boxes)

T Depth

0 560mm (Cabinet Depth: 625mm)

4 365mm (Cabinet Depth: 430mm)

5 460mm (Cabinet Depth: 525mm)

6 610mm (Cabinet Depth: 675mm)

suitable for Euro Boxes

EXTENDABLE SHELFBOARD, WOOD

- Shelfboard made of light grey melamine resin covered 25mm thick chipboard, all sides with antistatic 2mm PP plastic edge.
- Telescopic rails 40kg.



Extendable Shelfboard

480.6 **BB** . **T 2 A**

BB Width

03	370mm (for W: 800-Cabinets with Middle Wall)
04	380mm (for W: 420-Cabinets)
05	470mm (for W: 1000-Cabinets with Middle Wall)
06	570mm (for W: 1200-Cabinets with Middle Wall)
08	760mm (for W: 800-Cabinets)
10	960mm (for W: 1000-Cabinets)

T Depth

0	560mm (Cabinet Depth: 625mm)
4	360mm (Cabinet Depth: 430mm)
5	460mm (Cabinet Depth: 525mm)

A Version

0	Standard
5	ESD 



ESD-Ausführung mit oberflächen- und volumenleitfähiger
Lage und leitfähigen Teleskopauszügen.

TELESCOPIC HEAVY DUTY SHELFBOARD IN ESD



- Sheet steel shelfboard with 3fold bent front and rear with extra reinforcement.
- Durable, conductive powder coating in light grey.
- Dissipative heavy duty telescopic rail with selfclosing mechanism.
- Load capacity: 96kg (D: 360) / 110kg (D: 460) / 118kg (D: 560).

Telescopic Heavy Duty Shelfboard in ESD 480.6 **BB** . **T 45**

BB Width

05	471mm (for W: 1000-Cabinets with Middle Wall)	10	962mm (for W: 1000-Cabinets)
06	571mm (for W: 1200-Cabinets with Middle Wall)	12	1162mm (for W: 1200-Cabinets)
08	762mm (for W: 800-Cabinets)		

T Depth

0	560mm (Cabinet Depth: 625mm)
4	360mm (Cabinet Depth: 430mm)
5	460mm (Cabinet Depth: 525mm)

BOOK END FOR SHELFBOARD

- Sheet steel shelfboard with 3fold bent front and rear with extra reinforcement.
- Durable light grey powder coated.
- Dimensions: 290 x 200mm (WxH).

Book End for Shelfboard

480.350.003



STORE YOUR MATERIALS ORDERLY AND SAFE

You are searching for a possibility to store files, working clothes or sensible electrical devices in a professional way? The cabinet system of hera offers perfect solutions for multiple applications. For an ergonomic handling we do not only offer cabinets but also the internals like shelfboards, extensional cable combs, etc. See our details in the next pages with practical examples.



WARDROBE RAIL AND - BRACKET

- Wardrobe rail for cabinet depth: 625mm consists of an oval metal tube, chromated incl. support for the fixation inside the cabinet.
- Wardrobe bracket for cabinet depth 430mm and 525mm. Telescopic metal bracket for the fixation at the lower side of a shelfboard.

Wardrobe Rail 480.4 BB .000	
BB Width	
03	370mm (for W: 800-Cabinets with Middle Wall)
04	380mm (for W: 420-Cabinets)
05	470mm (for W: 1000-Cabinets with Middle Wall)
06	570mm (for W: 1200-Cabinets with Middle Wall)
08	760mm (for W: 800-Cabinets)
10	960mm (for W: 1000-Cabinets)
12	1160mm (for W: 1200-Cabinets)



Wardrobe Bracket 480.400.000	
------------------------------	--



SHELFBOARD FOR TRAINING SYSTEMS

- Melamine resin covered 19mm thick chipboard, all sides with 2mm PP plastic edge.
- Slotted mat glued on for the upright storage of standard A4 training systems.



Shelfboard for Training Systems 480.6 BB . T 3 A		
BB Width	T Depth	A Type
04 380mm (for W: 420mm)	0 545mm (for D: 625mm)	0 1-side with Slotted Mat
05 470mm (for W: 1000 with Middle Wall)	4 350mm (for D: 430mm)	5 2-sides with Slotted Mat
06 570mm (for W: 1200 with Middle Wall or Roller Shutter 800mm)	5 445mm (for D: 525mm)	
08 760mm (for W: 800 or Roller Shutter 1000mm)	480.699.000: Slotted Mat 480x520 (WxD), rear side with tape	

TELESCOPIC CABLE SUPPORT

- Telescopic full extension with snapping end positions.
- Sheet steel cable comb (depth: 80mm), durable light grey powder coated.
- Various gap widths for cables with max. 12mm diameter.

Telescopic Cable Support 480.600. L 00		
L Length		
0 550mm (for D: 625mm)	4 350mm (for D: 430mm)	5 450mm (for D: 525mm)



INTEGRATED DRAWERS



- Metallic sheet steel drawer, black.
- Durable conductive powder coated.
- With telescopic full extension (approx. 33mm over extension).
- Load capacity: 700N.
- Height: 91mm.



Integrated Drawers

480.7 **BB** **T** **0** **A**

BB Width

04 380mm (for W: 420-Cabinets)**10** 960mm (for W: 1000-Cabinets)**06** 570mm (for W: 1200-Cabinets with Middle Wall)**12** 1160mm (for W: 1200-Cabinets)**08** 760mm (for W: 800-Cabinets)

T Depth

0 Cabinet Depth: 625mm**4** Cabinet Depth: 430mm

A Version

0 Standard**5** ESD 

FILING FRAME

- Frame for hanging files, made of sheet steel, durable black powder coated with metallic separator.
- Approx. 33mm over extension.
- Load capacity: 700N.
- Height: 91mm.



Filing Frame

480.8 **BB** **T** **00**

BB Width

04 380mm (for W: 420-Cabinets)**10** 960mm (for W: 1000-Cabinets)**06** 570mm (for W: 1200-Cabinets with Middle Wall)**12** 1160mm (for W: 1200-Cabinets)**08** 760mm (for W: 800-Cabinets)

T Depth

0 Cabinet Depth: 625mm**4** Cabinet Depth: 430mm

OPTION DRAWER FRONT

- Suitable for cabinets with glass doors or open shelves, serving as front for integrated drawers and filing frames.
- Light grey melamine resin covered chipboard with metallic handle.



Option Drawer Front

480.8 **BB** **.7** **H** **A**

BB Width

04 380mm**10** 960mm**06** 570mm**12** 1160mm**08** 760mm

H Height

2 2HE**4** 4HE**3** 3HE**6** 6HE

A Version

0 Standard**5** ESD 

DRAWER CABINET

- Body made of 19mm melamine resin covered chipboard with solid decorative 13mm rear wall.
- Dust protected due to surrounding rubber lip.
- Sheet steel drawer, durable black powder coated with telescopic full extension.
- Approx. 33mm over extension.
- Load capacity: 700N.
- Height: 91mm.
- Drawer fronts in HE (1HE = 64mm) with metal handles.
- Upper drawer front with central lock and 2 keys (master-key-system).
- Single-drawer blocking system and integrated counter weight for perfect stability even with open drawers.



486.204.030

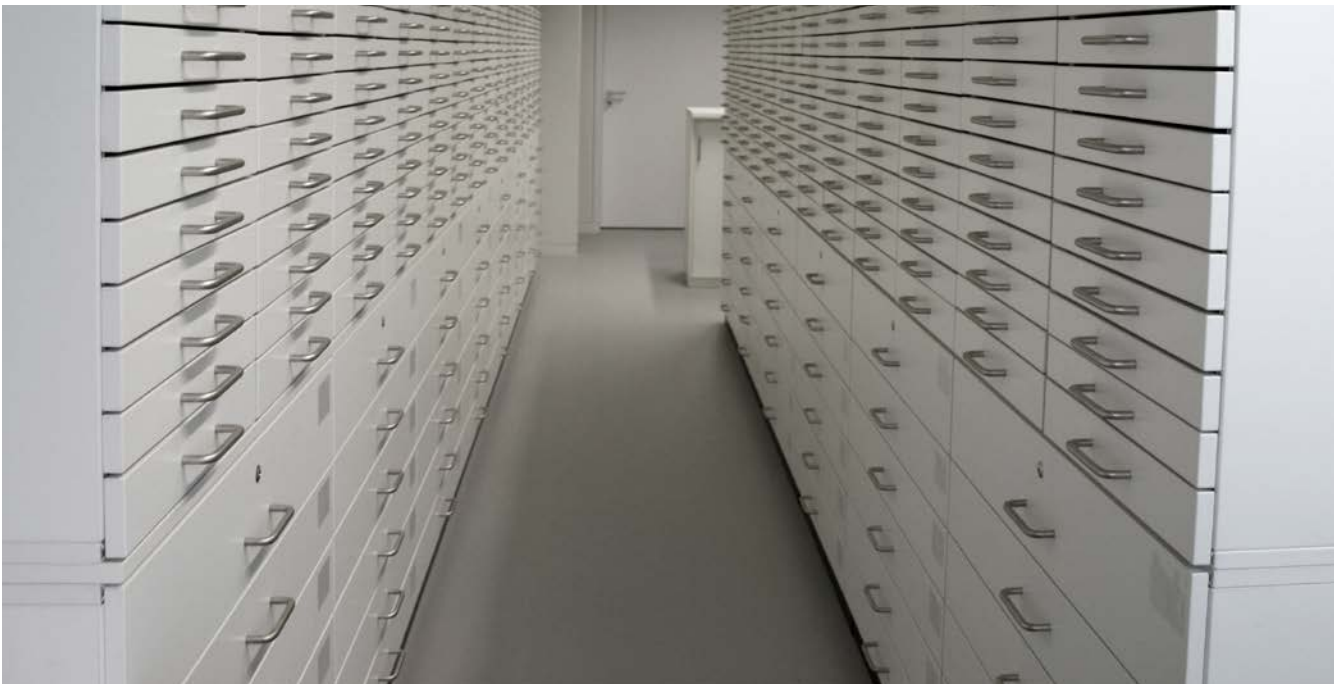


486.308.470



486.312.490

Drawer Cabinet		486. <div>H</div> <div>BB</div> <div>T</div> <div>S</div> <div>A</div>				
<div>H</div> Height	<div>BB</div> Width	<div>T</div> Depth	<div>S</div> Drawers	<div>A</div> Version		
2 2OH 720mm	04 420mm	0 625mm	3 for Height 720: 1x 3HE + 2x 4HE	0 Standard		
3 3OH 1264mm	08 800mm	4 430mm	4 for Height 720: 3x 3HE + 1x 2HE	5 ESD		
	10 1000mm		5 for Height 720: 1x 3HE + 4x 2HE			
	12 1200mm		for Height 1264: 2x 3HE + 2x 4HE + 1x 5HE			
			6 for Height 1264: 5x 3HE + 1x 4HE			
			7 for Height 1264: 1x 3HE + 4x 2HE + 2x 4HE			
			8 for Height 1264: 1x 3HE + 6x 2HE + 1x 4HE			
			9 for Height 1264: 1x 3HE + 8x 2HE			



OPTION **DRAWER CLOSING** WITH SOFTSTOP

- Self-closing drawer mechanism with two softstop cylinders.

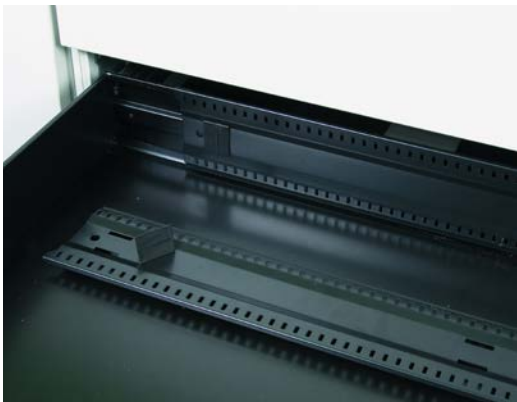
Softstop per Drawer	486.502.000
---------------------	-------------



PAIR OF **PERFORATED PANELS** FOR CABINET DRAWER

- Required if the cabinet drawers should be equipped with seperators and dividers.
- 2x perforated sheet steel panels, durable black powder coated.
- Usable drawer width reduced by 46mm.

Pair of Perforated Panels	
486.504.000	W: 371mm for Cabinet Width 420mm
486.506.000	W: 536mm for Cabinet Width 1200mm with Middle Wall
486.508.000	W: 736mm for Cabinet Width 800mm
486.510.000	W: 936mm for Cabinet Width 1000mm
486.512.000	W: 1136mm for Cabinet Width 1200mm



SEPERATOR FOR DRAWER

- Separates the drawers between the perforated panels.
- With holes for attaching the dividers.
- Double-walled sheet steel, durable black powder coated.

Seperator for Drawer	
486.520.000	Depth: 491mm (for Cabinet Depth: 625mm)
486.520.400	Depth: 326mm (for Cabinet Depth: 430mm)



DIVIDER FOR DRAWER

- For the lengthwise division between the seperators.
- Made of sheet steel, durable black powder coated.

Divider for Drawer	
486.524.000	Divider A4 (310mm)
486.525.000	Divider A5 (210mm)
486.526.000	Divider A6 (150mm)
486.527.000	Divider A7 (110mm)



FILE CABINET

- Body made of 19mm melamine resin covered chipboard.
- Incorporated, decorative rear wall (13mm thick).
- Dust protection due to surrounding rubber lip.
- Metal frames for hanging files with telescopic full extension, 19mm drawer front with metal handle.
- Upper drawer front with central lock and 2 keys (master-key-system).
- Single-drawer blocking system and integrated counter weight for perfect stability even with open drawers.



485.204.400





485.308.400

File Cabinet 485. H BB T 0 A				
H Height (excl. base)	BB Width	T Depth	A Version	
2 2OH (720mm)	04 420mm	10 1000mm	0 Standard	
3 3OH (1264mm)	08 800mm	12 1200mm	5 ESD 	

MIDDLE PLATE / COVER PLATE


- Light grey melamine resin covered chipboard, all sides with 2mm PP plastic edge.
- Height: 19mm (middle plate) or 30mm (cover plate).
- ESD version with surface - and volume conductive plate.



Middle - / Cover Plates 480.2 BB T AA			
BB Width	T Depth	AA Version	
04 420mm	0 625mm	00 19mm Standard	
08 800mm	4 430mm	05 19mm ESD 	
10 1000mm	5 525mm	30 30mm Standard	
12 1200mm		35 30mm ESD 	

EXTENSIONAL MIDDLE PLATE


- Extensional middle plate, all sides with 2mm PP plastic edge for the brief laydown of storing items.
- Pull-out safe board with metal handles.
- Color: light grey, pearl structure.
- Height: 19mm.

Extensional Middle Plate 480.2 BB T 1 A			
BB Width	T Depth	A Version	
08 800mm	0 625mm	0 Standard	
10 1000mm	4 430mm	5 ESD 	
12 1200mm	5 525mm		



RAIL FOR CABINET LADDER

- Rail incl. brackets and cabinet paneling.
- Paneling made of 19mm melamine resin covered chipboard (height: 160mm).
- Anodized metal rail incl. metal brackets.
- Prepared for the installation on customers' site.

Rail for Cabinet Ladder		480.50 B B T A		
BB Width	T Depth	A Version		
04 420mm	0 625mm	0	Standard	
08 800mm	4 430mm	5	ESD	
10 1000mm	5 525mm			
12 1200mm				



CABINET LADDER

- Aluminium made, with 7 rungs.
- Ladder outreach: approx. 550mm.

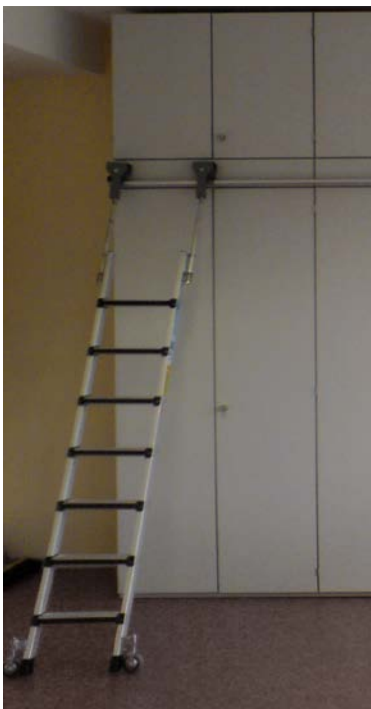
Cabinet Ladder	
480.510.000	Standard Ladder with Casters
480.515.000	Telescopic Ladder with Casters
480.520.000	Ladder with Hooks for Rail
480.500.100	Side Port to Store the Ladder



480.510.000



480.520.000



Telescopic Ladder with Casters



Side Port for Ladder

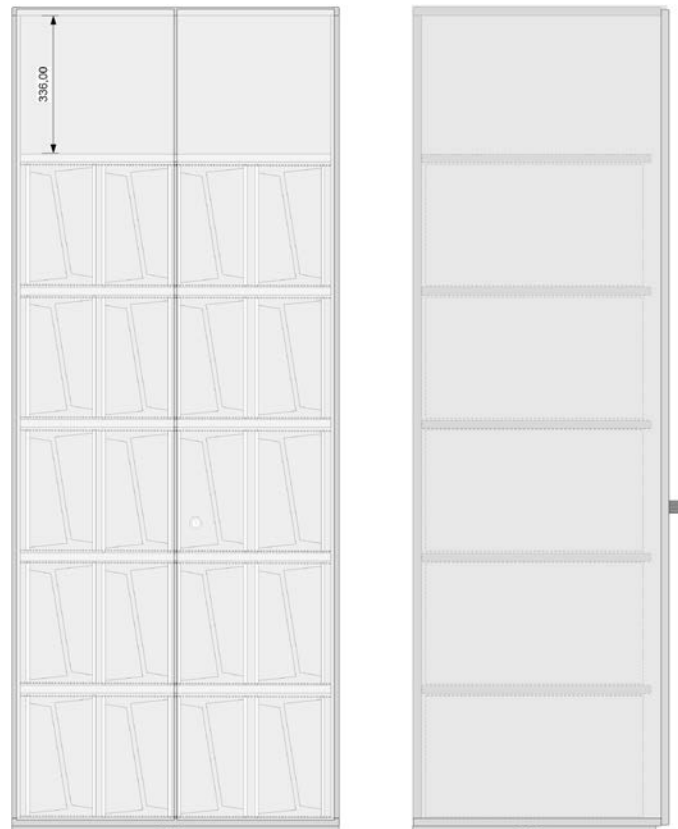


Ladder with Hooks for Rail

TRAINING SYSTEM CABINET - FULLY CONFIGURED

- Hinged door cabinet, made of 19mm melamine resin covered chipboard.
- Incorporated decorative 8mm rear wall.
- Double doors with metal hinges, opening 270°.
- Right door with espagnolette lock (master-key-system) and handle knob.
- Cabinets width 1000 and 1200 with middle wall.
- Incl. shelf boards with slotted mats for the upright storage of standard A4 training systems.
- Incl. corrosion safe sheet steel base with light grey powder coating (height: 50mm) with metallic leveling screws.
- 5x levels for the storage of standard training systems and 336mm standard compartment.
- Total height: 2054mm.

Training System Cabinet - Fully Configured 488.1 BB T 00			
BB Width		T Depth	
08 800mm		0 625mm	
10 1000mm		4 675mm	
12 1200mm		5 525mm	



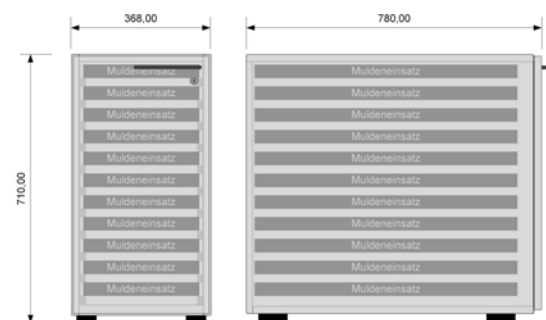
Training System Cabinet for standard Training Systems (front / side view)

CABINETS, SHELF CABINETS & CONTAINER FOR TRAYS

- Body made of 19mm melamine resin covered chipboard with 2mm PP plastic edge. Incorporated 8mm thick rear wall.
- Sides with slotted mat for the storage of plastic trays.
- Pedestal container prepared for the storage of 11 trays. Dimensions: 368x780x710mm (WxDxH). Optionally with metal hinged 19mm thick door, with lock (master-key-system) and metal segment handle.
- Shelf cabinet / cabinet prepared for 22 trays (W: 774mm, D: 675mm, H: 750mm) or for 68 trays (W: 774mm, D: 675mm, H: 2054mm) incl. 50mm sheet steel base.
- Cabinets with 270° opening metall hinges with espagnolette lock and handle knob.

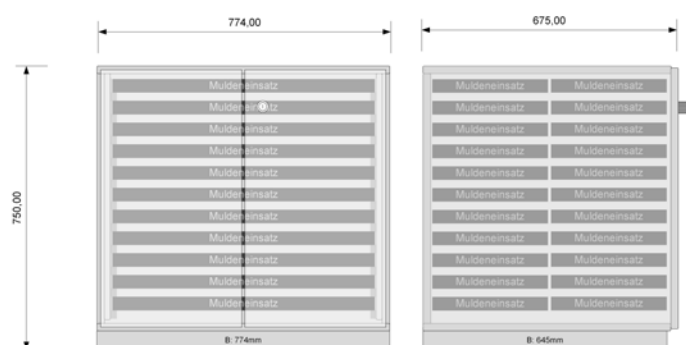


Plastic tray for training boxes



Pedestal Container for plastic trays

Cabinets, Shelf Cabinets & Container for Trays	
439.060.000	Plastic Tray 693x305x35mm (WxDxH)
435.102.003	Pedestal Container for Trays, no door
435.112.003	Pedestal Container for Trays (right hinged door)
435.112.003	Pedestal Container for Trays (left hinged door)
488.202.600	Shelf Cabinet for 22 Trays
488.212.600	Hinged Door Cabinet for 22 Trays
488.205.600	Shelf Cabinet for 68 Trays
488.215.600	Hinged Door Cabinet for 68 Trays



Shelf Cabinet for plastic trays

STORAGE CART FOR STANDARD TRAINING SYSTEMS

- Body made of 19mm melamine resin covered chipboard with incorporated 13mm decorative rear wall.
- Middle wall and inner walls are equipped with slotted mats for the storage of standard A4 training systems in 2 rows.
- The storage cart is optional available with 270° opening door with metal hinges, metal handle and lock (master-key-system).
- Heavy duty casters, 100mm diameter, 2 with brakes. Optionally available as fixed version with leveling feet.
- Dimensions: 661 x 625 x 1490mm (WxDxH).
- Sheet steel boxes with slots for dividers. Dimensions: 297x532x50mm (WxDxH); with 3x dividers. Durable powder coated in light grey.



Storage Cart for Training Systems

940.256.110	Storage with Leveling Feet
940.256.100	Storage Cart
940.256.310	Storage with Door and Leveling Feet
940.256.300	Storage Cart with Door
940.256.200	Sheet Steel Boxes with 3x Dividers

BATTERY CHARGING CABINET 50H

- Hinged door cabinet 50H made of 19mm melamine resin covered chipboard in light grey.
- 270° opening doors with metal hinges, espagnolette lock with 2 keys, upper and lower side with ventilation grille.
- Integrated 45° compact terminal for the flexible equipment with KK modules, incl. cable access and power cord (KK modules not included, see chapter 13).
- Incl. 4x perforated sheet steel shelfboards.
- Sheet steel base 50mm; durable light grey powder coated.



Battery Charging Cabinet 50H

480.912.600	Battery Charging Cabinet 50H; W:1200; D:625mm
480.910.500	Battery Charging Cabinet 50H; W:1000; D: 525mm
480.908.400	Battery Charging Cabinet 50H; W: 800; D: 430mm

SHEET STEEL CABINETS

CHARACTERISTICS AND ADVANTAGES:

- **High Load Capacity**
Load capacity of housing, max. 4000kg and 75kg each drawer (ESD 50kg).
Load capacity per drawer: 200kg on demand!
- **High Storage Capacity**
Fully usable drawer height as the drawer has same height than drawer front, each drawer with full extension.
- **Perfect Safety**
Single-drawer-blocking-system and pull-out safety as a standard feature.
- **Optimized Arrangement and Organization**
All drawers are slotted and perforated for the modular acceptance of small part boxes and dividing material.
- **Professional Labeling**
Drawer front with labeling tags. Professional labeling software can be downloaded for free.



LOCKING SYSTEMS:

Key Lock (Standard)

- Replacable key lock with 2 keys (key number).
- Master key system on demand (max. 100 keys).
- Random key locks, locks for same key on demand.



Code Lock (optional)

- Locks with 4- to 6-digit codes, max. 100 codes.
- Code management via Lock ID Code or Software.
- Powered by 2x AA batteries.
- Several years of battery durability.
- Logfile of recent 50 events.



RFID Lock (optional)

- Features like Code Lock.
- User RFID Badge or RFID Card
- Easy adding and deleting of users with Mastercard, RFID Badge, RFID Card or Software.
- Extra contact for the integration of external systems.



SHEET STEEL DRAWER CABINET

- Completely closed and welded sheet steel housing for a maximum of stability, durable powder coated.
- Sheet steel drawers with full extension, load capacity: 75kg.
- Drawer front in mm, with hole-width handle strip (with label holder, free labeling software on demand).
- Drawer in same height than drawer front; slots for the acceptance of dividers in 17mm raster.
- Replacable lock with 2 keys.
- Code- and RFID-Lock on demand.
- Inner drawer dimensions:
Width: 612 / 918mm (for 717 / 1023mm).
Depth: 459 / 612mm (for 572 / 725mm).

ESD Version:



- Conductive powder coating.
- Load capacity per drawer: 50kg.



498.707.530





498.710.520

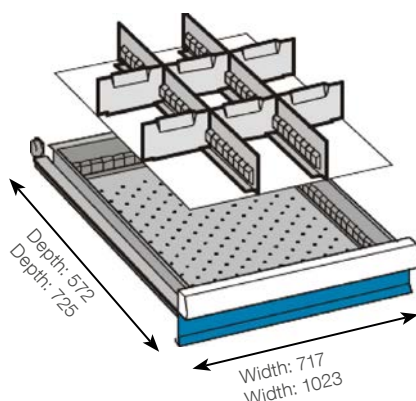


498.714.710

Sheet Steel Drawer Cabinet

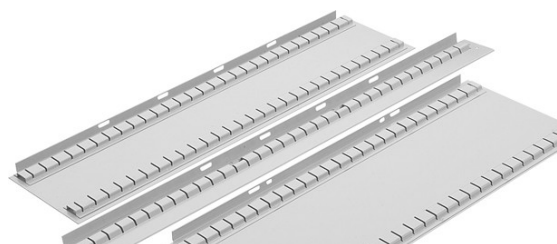
498. **B** **HH** **T** **S** **A**

B Width	HH Height	T Depth	S Drawers	A Version
1 1023mm	07 700mm	5 572mm	1 8x 75 (H: 700)	0 light grey RAL7035
7 717mm	08 850mm	7 725mm	10x 75 (H: 850)	1 anthracite RAL7016
	10 1000mm		12x 75 (H: 1000)	5 ESD light grey 
	14 1450mm		18x 75 (H: 1450)	6 ESD anthracite 
			2 4x 75 + 2x 150 (H: 700)	
			4x 75 + 3x 100 + 1x 150 (H: 850)	
			4x 75 + 3x 100 + 2x 150 (H: 1000)	
			6x 75 + 3x 100 + 4x 150 (H: 1450)	
			3 2x 75 + 2x 100 + 1x 250 (H: 700) for W:1023 not available in ESD	
			4x 75 + 2x 100 + 2x 200 (H: 1000)	
			4x 75 + 2x 150 + 1x 300 (H: 1000) for W:1023 not available in ESD	
			2x 75 + 4x 100 + 4x 200 (H: 1450)	
Base for Forklifts				
498.110.500	WxDxH: 1023x506x100mm			
498.110.700	WxDxH: 1023x659x100mm			
498.710.500	WxDxH: 717x506x100mm			
498.710.700	WxDxH: 717x659x100mm			



SLOTTED PARTITIONS FOR SHEET STEEL DRAWER

- For the lengthwise and crosswise partitioning of sheet steel drawers.
- Made of sheet steel with slots in 17mm raster, incl. fixing material.
- Color: grey.



Slotted Partitions for Sheet Steel Drawers				
	Front Height			
	50	75	100	150
304mm	496.012.015	496.012.124	496.012.016	496.012.017
456mm	496.080.085	496.080.089	496.080.095	496.080.101
610mm	496.080.088	496.080.091	496.080.097	496.080.103

PLAIN PARTITIONS FOR SHEET STEEL DRAWERS

- For the lengthwise and crosswise partitioning of sheet steel drawers.
- Made of sheet steel with slots in 17mm raster, incl. fixing material.
- Color: grey.



Plain Partitions for Sheet Steel Drawers				
	Front Height			
	50	75	100	150
18E / 304mm	496.012.088	496.012.121	496.012.089	496.012.090
27E / 456mm	496.080.237	496.080.121	496.080.127	496.080.133
36E / 610mm	496.080.239	496.080.123	496.080.129	496.080.135

DIVIDERS FOR SHEET STEEL DRAWERS

- In combination with the partitions, the dividers enable an individual segmentation of drawers in 17mm raster.
- Slanted top over the whole width for the acceptance of label holders or barcode labels.
- Made of aluminium.



Dividers for Sheet Steel Drawers				
	Front Height			
	50	75	100	150
48mm	496.100.837	496.100.848	496.100.859	-
98mm	496.100.840	496.100.851	496.100.862	496.100.870
149mm	496.100.843	496.100.854	496.100.865	496.100.873
201mm	496.100.845	496.100.856	496.100.867	496.100.875
303mm	496.100.847	496.100.858	496.100.869	496.100.877

TOP-MOUNT CABINET FOR SHEET STEEL DRAWER CABINET

- Sheet steel cabinet prepared to be placed on top of a sheet steel drawer cabinet.
- Available with hinged doors or sliding doors (only width: 1023mm).
- Optionally doors with acrylic glass inlay.
- Height: 1000mm (clear height: 930mm).
- Incl. 1x anodized shelfboard (load capacity: 60kg).



Top-Mount Cabinet

498. **B** **0** **A** . **T** **0** **A**

B Width	A Type	T Depth	F Color
1 1023mm	0 with Hinged Doors	5 572mm	0 light grey RAL7035
7 717mm	1 with Hinged Doors and Acrylic Inlay (only W: 1023)	7 725mm	1 anthracite RAL7016
	2 with Sliding Doors (only W: 1023)		
	3 with Sliding Doors and Acrylic Inlay (only W: 1023)		



SHEET STEEL CABINET WITH HINGED DOORS



- Completely welded sheet steel construction for a maximum of stability. Load capacity: max. 500kg.
- 25mm hole raster for shelfboards.
- Sheet steel doors with 115° opening angle.
- Cylindrec lock with 2 keys (master-key-system on demand).
- Incl. anodized shelfboards, load capacity: 60kg.
- Width: 1000mm.



Locking Systems: Standard or Code Lock on demand

Sheet Steel Cabinet with Hinged Doors

497. **H** **10** . **T** **0** **A**

H Height	T Depth	A Version
2 1000mm (2 shelfboards)	4 400mm	0 light grey RAL7035
5 1950mm (4 shelfboards)	5 500mm	1 anthracite RAL7016
		5 ESD light grey 
		6 ESD anthracite 

Extra Shelfboard:

for depth: 400mm: 497.010.400

for depth: 500mm: 497.010.500

SHEET STEEL SLIDING DOOR CABINET

- Completely welded sheet steel construction for a maximum of stability. Load capacity: 500 - 950kg ($\geq W$: 1500mm).
- 25mm hole raster for shelfboards.
- Full metal doors, double bended and reinforced.
- Push-lock with 2 keys (master-key-system).
- Code lock available on demand.
- Incl. anodized shelfboards, load capacity: 60kg.





Sheet Steel Sliding Door Cabinet 497. **H BB T 1 A**

H	Height	BB	Width	T	Depth	A	Color
2	1000mm (2 shelfboards)	10	1000mm	4	400mm	0	light grey RAL7035
	($\geq W$: 1500 with middle wall and 4 shelfboards)	12	1250mm	5	500mm	1	anthracite RAL7016
5	1950mm with 4 shelfboards	15	1500mm with Middle Wall				
	($\geq W$: 1500 with middle wall and 8 shelfboards)	20	2000mm with Middle Wall				

SHEET STEEL SHELF

- Boltless shelf system with basic shelf unit and add-on units.
- 25mm raster for shelfboards.
- Max. bay load: 2.800kg.
- Shelfboard (H: 25mm), load capacity: 160kg.

Shelfboards for Sheet Steel Shelf 496.49 **B T 0 A**

B	Width	T	Depth	A	Version
0	1000mm	4	400mm	0	light grey RAL7035
3	1300mm	5	500mm	1	anthracite RAL7016
		6	600mm	5	ESD light grey 
				6	ESD anthracite 
				9	anodized



Basic Unit



Add-On Unit

SAFETY NOTIFICATION:

Shelves higher than 5:1 (height - depth ratio) need to be secured in wall or floor (on demand). Each 3rd add-on unit needs a cross stiffener.

Sheet Steel Shelf 496. **R H B T 0 A**

R	Shelf	H	Height	B	Width	T	Depth	A	Version
2	Basic Shelf Unit (2 pair of braces + 1 cross stiffener)	0	2000mm (5 shelfboards)	0	1000mm	4	400mm	0	light grey RAL7035
		2	2200mm (5 shelfboards)	3	1300mm	5	500mm	1	anthracite RAL7016
3	Add-On Unit (1 pair of braces)	5	2500mm (5 shelfboards)			6	600mm	5	ESD light grey 
								6	ESD anthracite 
								9	anodized



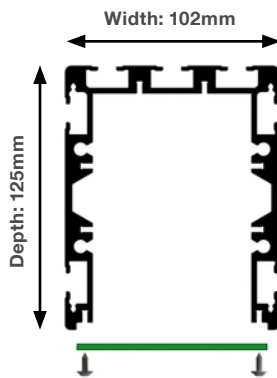
CHAPTER 9: INSTRUMENT RACKS FOR KP, EP, MP MODULES

- | | | | |
|------------|---|------------|---|
| 244 | PROFI ENERGY Extension | 263 | EASY Energy Board in Wood, for EP and MP |
| 245 | EASY / PROFi ENERGY Profile | 264 | PROFI Module Board and MEP Board |
| 248 | EASY / PROFi Aluboard | 266 | Swivel Mechanics for Instrument Rack |
| 250 | Aluboard Compact | 267 | Retractable Chest for Instruments Rack |
| 254 | Instrument Tray and Perforated Backplane | 268 | Hexagonal Rack |
| 255 | Board and Container for IMOD Function Units | 269 | Retractable Team Rack and Tower Board Alu |
| 257 | Function Board and Undertop Energy Board | 270 | EASY Tower Board Wood and Signal Lamps |
| 258 | PROFI Energy Channel for EP | 271 | PROFI Status Light RGB |
| 259 | PROFI Energy Board in Metal, for EP and MP | 275 | Cables, Sockets with Flaps |
| 260 | EASY Energy Channel 45° for EP | 276 | Subracks and Carrying Cases |
| 262 | PROFI Energy Board in Wood, for EP and MP | 277 | Cables |

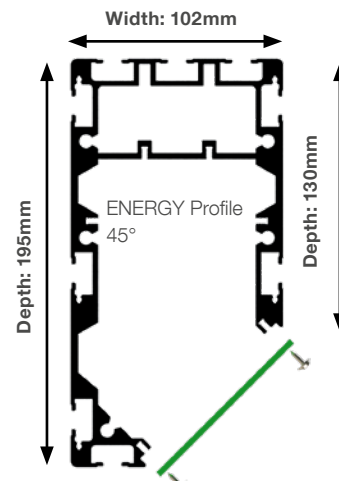


KP SYSTEM - VERTICAL OR HORIZONTAL

The ENERGY Profile with KP modules is the only channel which can be used either vertically or horizontally. It is the optimal solution if only circuit breakers, sockets or other small technology is required. It is also applicable if bundles of cables need to be routed. The ENERGY Profile 45° offers an ergonomic face-angle to the operator.



ENERGY Profile as extensions
equipped with KP modules

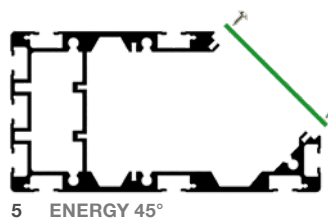
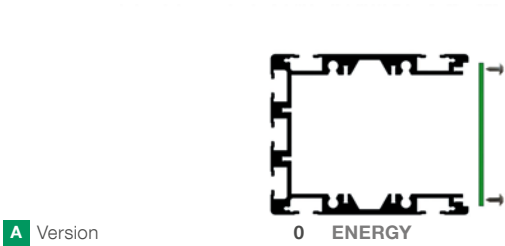


ENERGY Profile 45° horizontally mounted on bench
equipped with KP modules



PROFI ENERGY EXTENSIONS

- Two aluminium profiles ENERGY for the vertical assembly on PROFI - or EASY benches.
- Flexibly equipped with modules in KP raster.
- With surrounding profile slots for the flexible acceptance of PROFI shelves or racks.
- Durable powder coated according to RAL Code.



PROFI Extensions ENERGY			320.HH B.9 A 0	
HH Height (in 100mm Raster)			B Fixation	A Version
02 2x 4KP H: 200mm	07 2x 16KP H: 700mm	12 2x 29KP H: 1200mm	5 EASY Bench	0 ENERGY
03 2x 6KP H: 300mm	08 2x 19KP H: 800mm	13 2x 31KP H: 1300mm	6 PROFI Bench	5 ENERGY 45°
04 2x 9KP H: 400mm	09 2x 21KP H: 900mm	14 2x 34KP H: 1400mm	7 PROFI w. Power Legs	
05 2x 11KP H: 500mm	10 2x 24KP H: 1000mm	15 2x 36KP H: 1500mm	320.000.900 Fixing Bracket for one sided installation of ENERGY Extension	
06 2x 14KP H: 600mm	11 2x 26KP H: 1100mm			

EASY ENERGY PROFILE

- Aluminium profile, durable light grey powder coated.
- Front side prepared for the flexible acceptance of modules in KP raster.

ENERGY:

- With surrounding profile slots.
- Dimensions: 125 x 102mm (DxH).



ENERGY 45°:

- With surrounding profile slots.
- Dimensions: 195/130 x 102mm (DxH).



EASY ENERGY Profile

320.BBB.0 A 0

BBB Width

060 14KP W: 600mm	126 31KP W: 1260mm	160 39KP W: 1600mm
080 19KP W: 800mm	129 32KP W: 1295mm	180 44KP W: 1800mm
090 22KP W: 900mm	148 36KP W: 1485mm	200 49KP W: 2000mm
100 24KP W: 1000mm	150 37KP W: 1500mm	230 57KP W: 2303mm
120 29KP W: 1200mm		

A Version

0	ENERGY
5	ENERGY 45°

PROFI ENERGY PROFILE

- Aluminium profile, durable powder coated according to RAL Code.
- Front side prepared for the flexible acceptance of modules in KP raster.
- For the assembly between the PROFI extensions in flexible height.

ENERGY:

- With surrounding profile slots.
- Dimensions: 125 x 102mm (DxH).

ENERGY 45°:

- With surrounding profile slots.
- Dimensions: 195/130 x 102mm (DxH).



PROFI ENERGY Profile 320.BB F .9 A 0

BB Bench Width & Equipment (ENERGY Extensions)

05 500mm 10KP (7KP)	10 1000mm 23KP (19KP)	16 1600mm 38KP (34KP)
06 603mm 13KP (9KP)	12 1200mm 28KP (24KP)	18 1800mm 43KP (39KP)
08 800mm 18KP (14KP)	13 1295mm 30KP (27KP)	20 2000mm 48KP (44KP)
09 900mm 20KP (17KP)	15 1500mm 35KP (32KP)	23 2303mm 55KP (52KP)

F Extensions

3	SINGLE / MULTI
4	ENERGY

A Version

0	ENERGY
5	ENERGY 45°

EP SYSTEM - IDEAL FOR MEDIUM COMPLEXITY

Our EP system for 3HU modules offers a great variety of modules for medium complexity, that can be integrated into all EP racks, no matter if the channel is with tilted front or electrically retractable. The EP system is very cost-effective and racks are available in wood and metal.

Under benchtop mounted racks can even replace the cable tray and the instruments are accessible by opening the cable flap.



MP SYSTEM - SUITABLE FOR HIGH COMPLEXITY

The MP system for 5HU modules can be installed either directly on the bench top or suspended between the extensions. The MP racks are available in wood and metal. Due to its 5HU size the MP racks offer sufficient height for complex instruments like high voltage testers or oscilloscopes.



THE **ALUBOARD**, FITS FOR KP, EP AND MP MODULES

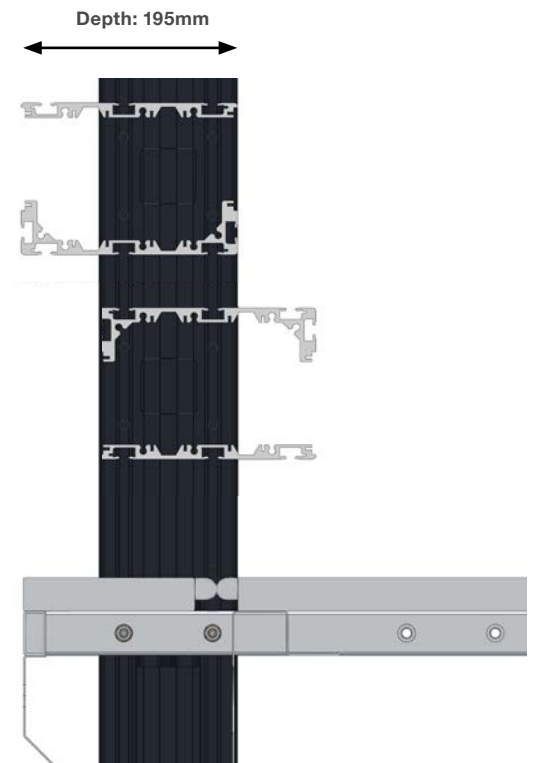
ALUBOARD

The Aluboard is applicable for KP, EP or MP modules. It can be equipped from both sides and is available either flat or in U-form if a slot for front- or rearside attachment is required. The profile can be installed between extensions or directly on the table top.

- Upper - and lower side with slotted profile for the flexible attachment of accessory.
- Front - and rear side for the flexible equipment with modules in KP, EP or MP raster.
- Depth: 195mm.
- Durable powder coated according to RAL-Code.

Available in different widths:

- For all bench widths.
- Between SINGLE/ MULTI Extensions (minus 80mm).
- Between ENERGY Extensions (minus 204mm).



A Version



PROFI: between the extensions, on variable height



EASY: on top of ENERGY extensions or bench top

S System



KP System:
Front Panel Height: 90mm



EP System:
Front Panel Height: 132mm (3HU)

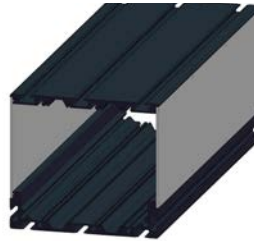


MP System:
Front Panel Height: 221mm (5HU)

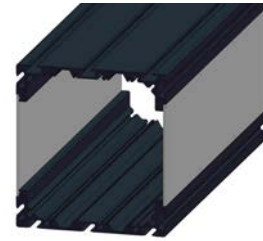
P Type



Total Height F/F
KP: 96mm
EP: 138mm
MP: 227mm




Total Height F/U
KP: 133mm
EP: 175mm
MP: 264mm



Total Height U/U
KP: 170mm
EP: 212mm
MP: 301mm

EASY / PROFI Aluboard

30 **A** **BBB** **S** **P** **0**

A Version	BBB Width and Equipment (per side)	S System	P Profile
5 PROFI	030 300mm 7KP 1EP 2MP 121 1215mm 29KP 4,5EP 9MP	2 KP	0 F/F
7 EASY	039 399mm 9KP 1EP 2MP 126 1260mm 31KP 4,5EP 9MP	3 EP (3HU)	1 F/F prepared for shelf
	042 420mm 10KP 1,5EP 3MP 129 1296mm 32KP 4,5EP 9MP	4 MP (5HU)	2 F/U
	052 523mm 12KP 1,5EP 3MP 139 1396mm 34KP 5EP 10MP		3 F/U prepared for shelf
	056 567mm 13KP 2EP 4MP 142 1420mm 35KP 5EP 10MP		4 U/F prepared for shelf
	059 596mm 14KP 2EP 4MP 148 1485mm 36KP 5,5EP 11MP		5 U/U
	069 696mm 17KP 2,5EP 5MP 150 1500mm 37KP 5,5EP 11MP		6 U/U prepared for shelf
	072 720mm 17KP 2,5EP 5MP 152 1520mm 37KP 5,5EP 11MP		
	079 796mm 19KP 2,5EP 5MP 159 1596mm 39KP 5,5EP 11MP		
	080 800mm 19KP 2,5EP 6MP 160 1600mm 39KP 5,5EP 11MP		
	082 820mm 20KP 3EP 6MP 172 1720mm 42KP 6EP 12MP		
	090 900mm 22KP 3EP 6MP 179 1796mm 44KP 6,5EP 13MP		
	092 920mm 22KP 3EP 6MP 180 1800mm 44KP 6,5EP 13MP		
	099 996mm 24KP 3,5EP 7MP 192 1920mm 47KP 7EP 14MP		
	100 1000mm 24KP 3,5EP 7MP 200 2000mm 49KP 7EP 14MP		
	109 1091mm 26KP 4EP 8MP 209 2099mm 52KP 7,5EP 15MP		
	112 1120mm 27KP 4EP 8MP 222 2223mm 55KP 8EP 16MP		
	120 1200mm 29KP 4EP 8MP 230 2303mm 57KP 8,5EP 17MP		
		Rear Panel	309.BBB.S00
		Rear panel with ventilation slots and cable outlet, made of durable powder coated sheet steel	
			

ALUBOARD COMPACT IN VARIOUS DEPTH

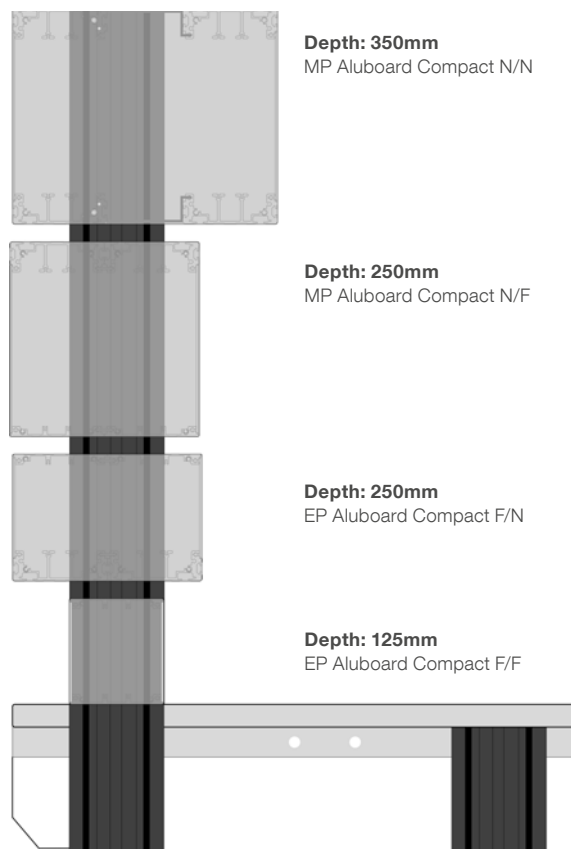
ALUBOARD COMPACT

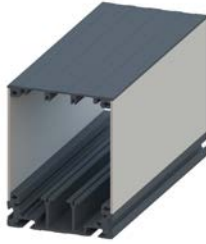
The Aluboard Compact is made of aluminium extrusions and it is available in different heights and different depths to accommodate everything from little to heavy technology.

- Upper - and lower side with slotted profile for the flexible attachment of accessory.
- Front - and rear side for the flexible equipment with modules in KP, EP or MP raster.
- Depth: 125mm / 250mm / 350mm.
- Durable powder coated according to RAL-Code.

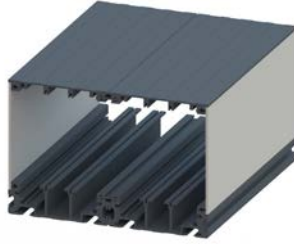
Available in different widths:

- For all bench widths.
- Between SINGLE/ MULTI Extensions (minus 80mm).
- Between ENERGY Extensions (minus 204mm).

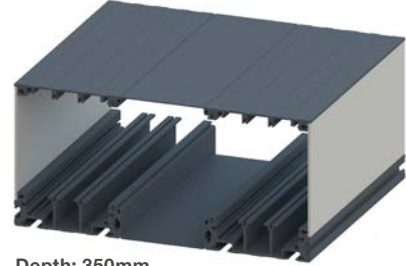


T Depth


Depth: 125mm
F/N Profile



Depth: 250mm
F/N Profile



Depth: 350mm
F/N Profile

S System

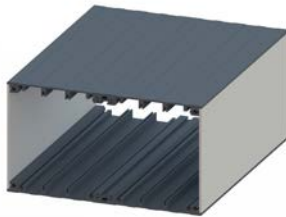

KP System:
Front Panel Height: 90mm



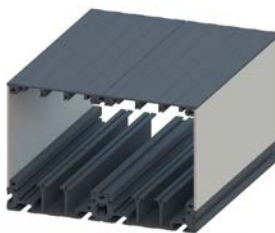
EP System:
Front Panel Height: 132mm (3HU)



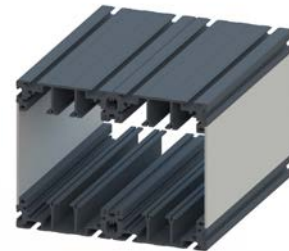
MP System:
Front Panel Height: 221mm (5HU)

A Type


Total Height F/F
KP: 98mm
EP: 140mm
MP: 229mm



Total Height F/N
KP: 128mm
EP: 170mm
MP: 259mm



Total Height N/N
KP: 150mm
EP: 192mm
MP: 281mm

EASY / PROFI Aluboard Compact

30 **T** **BBB** **E** **A** 0

T Depth	BBB Width and Equipment (per side)	E System	A Type
4 125mm	030 300mm 7KP 1EP 2MP	2 KP	0 F/F Profile
6 250mm	039 399mm 9KP 1EP 2MP	3 EP (3HU)	1 F/F Profile for Shelf
8 350mm	042 420mm 10KP 1,5EP 3MP	4 MP (5HU)	2 F/N Profile
	052 523mm 12KP 1,5EP 3MP		3 F/N Profile for Shelf
	056 567mm 13KP 2EP 4MP		4 N/F Profile for Shelf
	059 596mm 14KP 2EP 4MP		5 N/N Profile
	069 696mm 17KP 2,5EP 5MP		6 N/N Profile for Shelf
	072 720mm 17KP 2,5EP 5MP		
	079 796mm 19KP 2,5EP 5MP		
	080 800mm 19KP 2,5EP 6MP		
	082 820mm 20KP 3EP 6MP		
	090 900mm 22KP 3EP 6MP		
	092 920mm 22KP 3EP 6MP		
	099 996mm 24KP 3,5EP 7MP		
	100 1000mm 24KP 3,5EP 7MP		
	109 1091mm 26KP 4EP 8MP		
	112 1120mm 27KP 4EP 8MP		
	120 1200mm 29KP 4EP 8MP		
	121 1215mm 29KP 4,5EP 9MP		
	126 1260mm 31KP 4,5EP 9MP		
	129 1296mm 32KP 4,5EP 9MP		
	139 1396mm 34KP 5EP 10MP		
	142 1420mm 35KP 5EP 10MP		
	148 1485mm 36KP 5,5EP 11MP		
	150 1500mm 37KP 5,5EP 11MP		
	152 1520mm 37KP 5,5EP 11MP		
	159 1596mm 39KP 5,5EP 11MP		
	160 1600mm 39KP 5,5EP 11MP		
	172 1720mm 42KP 6EP 12MP		
	179 1796mm 44KP 6,5EP 13MP		
	180 1800mm 44KP 6,5EP 13MP		
	192 1920mm 47KP 7EP 14MP		
	200 2000mm 49KP 7EP 14MP		
	209 2099mm 52KP 7,5EP 15MP		
	222 2223mm 55KP 8EP 16MP		
	230 2303mm 57KP 8,5EP 17MP		

Rear Panel 309.BBB.S00

Rear panel with ventilation slots and cable outlet, made of durable powder coated sheet steel



ALUBOARD COMPACT 350 F/NF WITH INTEGRATED SOCKETS

- Upper side with flat profiles.
- Lower side with 2 slots for the attachment of equipment and a slanted sheet steel panel equipped with PE sockets, Type F (others on demand!).

W: 523 - 1091mm: 2x single socket
 W: 1120 - 1485mm: 2x double socket
 W: 1500 - 2303mm: 2x triple socket

- Front - and rear side prepared for the flexible acceptance of modules in KP, EP or MP raster.
- Height: 128mm (KP) / 170mm (EP) / 259mm (MP).
- Depth: 350mm.
- Terminal clamp for power cable and integration to inhouse emergency stop loop.
- Durable powder coated according to RAL Code.



Aluboard Compact 350 F/NF with Sockets

308.BBB.E70



FLEXIBLE ACCESSORY ATTACHMENT DUE TO SLOTTED PROFILES

The ENERGY profile and the aluboard are made with surrounding slots and thus support the attachment of various accessory in flexible or even movable position. This allows each user to arrange the workstation according to personal preferences and in a most ergonomic manner without much efforts.



TFT SUPPORT FOR ENERGY PROFILE AND ALUBOARD

- Movable support, durable light grey powder coated.
- VESA perforation (100x100 and 75x75mm) for attachment of TFT swivel heads or the TFT.

PROFI TFT Support for Profile Installation

491.053.150	for rear sided assembly to ENERGY profile (width: 150mm / height: 360mm)
491.053.250	for top / bottom assembly to ENERGY profile or aluboard (width: 150mm / height: 360mm)

TFT Swivel Head for PROFITFT Support

491.052.100	PLUS tilt -, swivel - and rotatable; silver (reach: 130mm; load: max. 15kg)
491.056.100	LC tilt -, swivel - and rotatable; black (reach: 65mm; load: max. 20kg)
491.057.100	TSS with ball joint and quick fastener (reach: 105mm; load: max. 15kg)



491.052.100



491.056.100



491.057.100

KEY BOARD SHELF FOR ENERGY PROFILE AND ALUBOARD

- Sheet steel shelf with front sided stop edge, durable light grey powder coated.
- Movable installed on bottom of the profile.
- Dimensions: 450 x 250mm (WxD).

Key Board Shelf for Profile Slots

320.009.600



TRAY FOR ENERGY PROFILE AND ALUBOARD

- Sheet steel tray with surrounding stop edge, durable dissipative powder coated in light grey.
- Movable installed on top of the profile.
- Screw for position lock and earthing.

Tray for Profile Installation		320. B T 9.100
B Width	T Depth	
4 400mm	3 300mm	
5 500mm	4 400mm	
6 600mm		



TILTABLE TRAY FOR ENERGY PROFILE AND ALUBOARD

- Front and sides with 20mm stop edge, tiltable in 3 steps (0° / 5° / 10° / 15°).
- Made of sheet steel, durable dissipative powder coated in light grey.
- Movable installed on top of the profile.

Tiltable Tray for Profile Installation		320. B T 9.200
B Width	T Depth	
4 400mm	3 300mm	
5 500mm	4 400mm	
6 600mm		



PERFORATED PANEL FOR ENERGY PROFILE AND ALUBOARD

- Perforated panel (1,5mm thick) with surrounding reinforcement, durable powder coated in light grey.
- Movable installed in the profile slots.
- Screw for position lock and earthing.
- For the acceptance of various tool holders.

Perforated Panel for Profile Slots			320. B H 9.4 A 0
B Width	H Height	A Version	
4 400mm	1 150mm	0 top / bottom	
5 500mm	3 300mm	5 rear (only ENERGY profile)	
6 600mm	4 400mm		



Version: installed in rear slots

SLEEVE FOR ENERGY PROFILE AND ALUBOARD

- Sleeve for the modular acceptance of the different PROFI swivel arms and end pieces with fixing screw.
- Movable with four synthetic slides.

Sleeve for ENERGY Profile and Aluboard	320.009.700
--	-------------



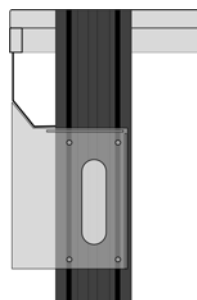
STORAGE OPTIONS FOR THE MODULAR IMOD FUNCTION-UNITS

One big advantage of the IMOD System is, that bench racks with complex electronics can be designed quite small. Powerful variacs, isolating transformers and lab power supplies can be located conveniently under the bench. Different options for ergonomic arrangements of the Function-Units are listed in following pages.



PROFI FUNCTION BOARD

- Durable powder coated sheet steel channel.
- Perforation at the rear side and bottom for air ventilation.
- Installed under the cable tray or directly under the bench frame.
- Upper side for the acceptance of modules in EP raster.
- Front side covered with blank panels in MP raster.
- Dimensions: 190 x 275/230mm (DxH).



PROFI Function Board

422.BB 0. F 21

BB Width & Equipment (with Power Legs)

08	800mm	2,5EP	(2EP)	15	1500mm	5EP	(4,5EP)
09	900mm	3EP	(2,5EP)	16	1600mm	5,5EP	(5EP)
10	1000mm	3EP	(2,5EP)	18	1800mm	6EP	(5,5EP)
12	1200mm	4EP	(3,5EP)	20	2000mm	7EP	(6,5EP)
13	1295mm	4,5EP	(4EP)	23	2303mm	8EP	(7,5EP)

F Extensions

0	SINGLE / MULTI
2	Power Legs

SUSPENDED CONTAINER 11HE FOR IMOD

- Light grey body made of 19mm melamine resin covered chipboard with 2mm PP plastic edge.
- Robust organizable sheet steel drawers with single-drawer blocking system in HE raster (1HE=50mm).
- Pencil drawer 1HE with central lock (master-key-system) and 2 keys.
- Compartment for Function-Unit separated by shelfboard and detachable front.
- Rear side of Function-Unit compartment with perforation for airflow, cable outlet and cable duct.
- Height of Function-Unit compartment: 200mm.
- Container height: 585mm.



Suspended Container for IMOD (11HE)

43 A. EE T. F B 3

A Version

1	Standard
3	ESD

EE Type

28	1x 2HE + 1x 4HE + 1x FU-Compartment
38	3x 2HE + 1x FU-Compartment

T Depth

0	580mm
1	680mm
2	780mm

F Form

0	Standard
2	DESIGN

B Width

0	420mm
6	600mm

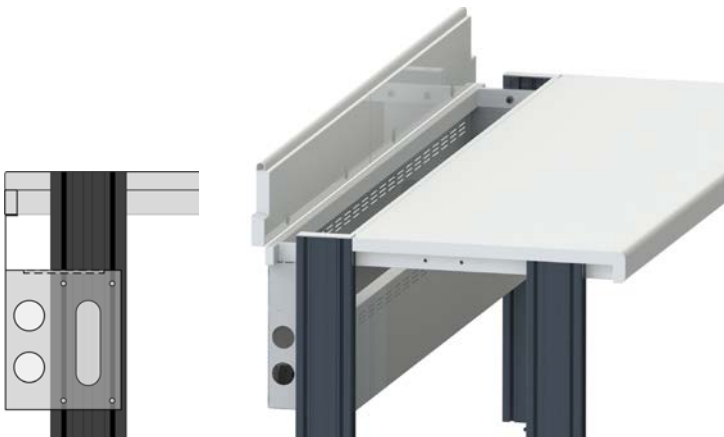
SHEETS STEEL BOARDS FOR VARIOUS POSITIONS

The sheet steel boards are available for EP and MP modules and can be installed directly on the bench top or suspended between the extensions. The boards are perforated for a most efficient air ventilation of the electric equipment and are well suited as stiffeners for shelves.



PROFI UNDER TOP ENERGY BOARD FOR EP

- Durable powder coated sheet steel channel.
- Perforation at the rear side and bottom for air ventilation.
- Installed between the bench legs and accessible at the cable flaps.
- Upper side for the acceptance of modules in EP raster.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.
- Dimensions: 190 x 320/230mm (DxH).



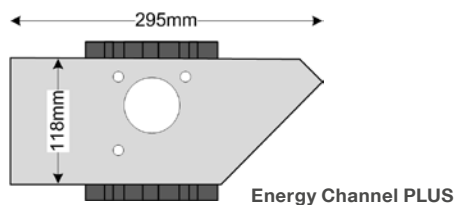
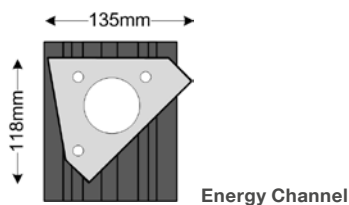
PROFI Under Top Energy Board 422.BB 0. F 20					
BB Width & Equipment (with Power Legs)				F Extensions	
08	800mm	2,5EP	(2EP)	15	1500mm 5EP (4,5EP)
09	900mm	3EP	(2,5EP)	16	1600mm 5,5EP (5EP)
10	1000mm	3EP	(2,5EP)	18	1800mm 6EP (5,5EP)
12	1200mm	4EP	(3,5EP)	20	2000mm 7EP (6,5EP)
13	1295mm	4,5EP	(4EP)	23	2303mm 8EP (7,5EP)
				0	SINGLE / MULTI
				2	Power Legs

PROFI **ENERGY CHANNEL** AND ENERGY CHANNEL PLUS FOR EP

- Ergonomically tilted sheet steel channel with 45° front, durable powder coated.
- High rigidity and thus ideal as support for shelf.
- Upper side with bores for the fixation of a shelf.
- Front side prepared for the acceptance of modules in EP raster.
- The Energy Channel PLUS is a suitable alternative for more technology (e.g. isolated transformers, power supplies, soldering / desoldering stations).



G Type



PROFI Channel			425_BB 0. F 1 G							
BB Width & Equipment (ENERGY Profile)			F Extensions			G Type				
03	270mm	1EP	13	1295mm	4EP (4EP)	0	SINGLE / MULTI		1	Energy Channel
06	603mm	1,5EP (1EP)	15	1500mm	5EP (4,5EP)	2	ENERGY		2	Energy Channel PLUS
08	800mm	2,5EP (2EP)	16	1600mm	5,5EP (5EP)					
09	900mm	3EP (2,5EP)	18	1800mm	6EP (5,5EP)					
10	1000mm	3EP (2,5EP)	20	2000mm	7EP (6,5EP)					
12	1200mm	4EP (3,5EP)	23	2303mm	8EP (7,5EP)					

PROFI Energy Channel Corner		425.5		KL	01	G
KL Edge Length Corner Element						G Type
00	1213 x 1213mm	5EP	12	1035 x 1035mm	3EP	20 1200 x 1000mm 4EP
10	835 x 835mm	2,5EP	18	935 x 935mm	3EP	22 1000 x 1200mm 4EP
						1 Energy Channel
						2 Energy Channel PLUS

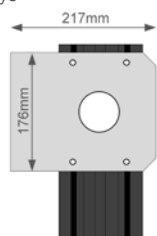


PROFI ENERGY BOARD AND MODULE BOARD FOR EP AND MP

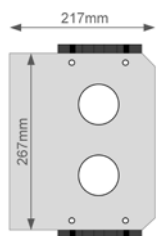
- Durable powder coated sheet steel channel.
- Perforation at the rear side and bottom for air ventilation.
- High rigidity and thus ideal as support for shelf.
- Upper side with bores for the fixation of a shelf.
- Front side prepared for the acceptance of modules in EP raster.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.



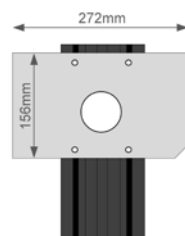
G Type



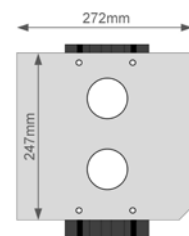
Energy Board (EP)



Module Board (MP)



Energy Board PLUS (EP)



Module Board PLUS (MP)

PROFI Energy Board and Module Board 422. BB 0. F 1 G

BB Width & Equipment (ENERGY Profile)

03	270mm	1EP/2MP	13	1295mm	4EP/8MP (4EP/8MP)
06	603mm	1,5EP/3MP (1EP/2MP)	15	1500mm	5EP/10MP (4,5EP/9MP)
08	800mm	2,5EP/5MP (2EP/4MP)	16	1600mm	5,5EP/11MP (5EP/10MP)
09	900mm	3EP/6MP (2,5EP/5MP)	18	1800mm	6EP/12MP (5,5EP/11MP)
10	1000mm	3EP/6MP (2,5EP/5MP)	20	2000mm	7EP/14MP (6,5EP/13MP)
12	1200mm	4EP/8MP (3,5EP/7MP)	23	2303mm	8EP/16MP (7,5EP/15MP)

F Extensions

0	SINGLE / MULTI
2	ENERGY

G Type

0	Energy Board
1	Energy Board PLUS
2	Module Board
3	Module Board PLUS

PROFI Energy Board Corner 422.5 KL.01 G

KL Edge Length Corner Element

00	1213 x 1213mm	5EP	12	1035 x 1035mm	3EP	20	1200 x 1000mm	4EP
10	835 x 835mm	2,5EP	18	935 x 935mm	3EP	22	1000 x 1200mm	4EP

G Type

0	Energy Board
2	Energy Board PLUS



EASY ENERGY CHANNEL 45° FOR EP

- Ergonomically tilted sheet steel channel with 45° tilted instrument front, durable powder coated for bench top installation.
- Dimensions: 150 x 150mm (DxH).
- Front side prepared for the acceptance of modules in EP raster.
- Bottom and rear side prepared for the fixation and cable access.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.



EASY ENERGY Channel 45°

315.BBB.500

BBB Width & Equipment

030	300mm	1EP	080	800mm	2,5EP	112	1120mm	4EP	148	1485mm	5,5EP	180	1800mm	6,5EP
052	523mm	1,5EP	082	820mm	3EP	120	1200mm	4EP	150	1500mm	5,5EP	192	1920mm	7EP
059	596mm	2EP	090	900mm	3EP	121	1215mm	4,5EP	152	1520mm	5,5EP	200	2000mm	7EP
060	600mm	2EP	092	920mm	3EP	126	1260mm	4,5EP	159	1596mm	5,5EP	209	2099mm	7,5EP
069	696mm	2,5EP	099	996mm	3,5EP	129	1296mm	4,5EP	160	1600mm	5,5EP	222	2223mm	8EP
072	720mm	2,5EP	100	1000mm	3,5EP	139	1396mm	5EP	172	1720mm	6EP	230	2303mm	8,5EP
079	796mm	2,5EP	109	1091mm	4EP	142	1420mm	5EP	179	1796mm	6,5EP			



THE CLASSIC WOODEN BENCH RACKS

Wooden bench racks are available for the assembly on the bench top (EASY) or for the suspended assembly between extensions (PROFI). The bench racks are available in standard material or dissipative for ESD versions. The wooden bench racks are made of melamine resin covered chipboard in light grey.



PROFI ENERGY BOARD (EP) AND MODULE BOARD (MP), WOOD

- Light grey body, made of 19mm melamine resin covered chipboard.
- Sides with cutout for the extensions.
- Detachable powder coated rear panel with two cable glands.
- Front side prepared for the acceptance of modules in EP or MP raster.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.
- Energy Board, height: 170mm.
- Module Board, height: 260mm.
- Depth: 300mm.



PROFI Energy Board and Module Board, Wood 422. **BB** **F** .51 **A**


BB Width & Equipment

06	603mm	2EP 4MP	15	1500mm	5EP 10MP
08	800mm	2,5EP 5MP	16	1600mm	5,5EP 11MP
09	900mm	3EP 6MP	18	1800mm	6,5EP 13MP
10	1000mm	3,5EP 7MP	20	2000mm	7EP 14MP
12	1200mm	4EP 8MP	23	2303mm	8EP 16MP
13	1295mm	4,5EP 9MP			

F Extension

0	SINGLE / MULTI (Energy Board)
1	SINGLE / MULTI (Module Board)
2	ENERGY (Energy Board)
3	ENERGY (Module Board)

A Version

0	Standard
5	ESD 

PROFI Energy Board and Module Board for Corners 422. **G** **KL** .51 **A**


G Type

5	Energy Board
6	Module Board

KL Corner Element

00	1213 x 1213mm 5EP 10MP	18	935 x 935mm 3EP 6MP
10	835 x 835mm 2EP 4MP	20	1200 x 1000mm 4EP 8MP
12	1035 x 1035mm 3,5EP 7MP	22	1000 x 1200mm 4EP 8MP

A Version

0	Standard
5	ESD 




EASY ENERGY BOARD (EP) AND MODULE BOARD (MP), WOOD

- Light grey body, made of 19mm melamine resin covered chipboard.
- Sides with cutout for the PROFI extensions.
- Detachable powder coated rear panel with two cable glands.
- Front side prepared for the acceptance of modules in EP or MP raster.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.
- Energy Board, height: 170mm.
- Module Board, height: 260mm.



EASY ENERGY Board and Module Board, Wood

31 **G** **BBB**, 5 **T** **A**

G Type	BBB Width & Equipment	T Depth	A Version
3 Energy Board	030 302mm 1EP 2MP 129 4,5EP 9MP	2 150mm	0 Standard
4 Module Board	060 567mm 2EP 4MP 139 4,5EP 10MP	3 300mm	5 ESD 
	069 696mm 2EP 4MP 142 5EP 10MP	6 300mm	
	072 720mm 2EP 4MP 148 5EP 10MP	(both sided)	
	079 796mm 2,5EP 5MP 150 5EP 10MP		
	080 800mm 2,5EP 5MP 152 5EP 10MP		
	082 820mm 2,5EP 5MP 159 5,5EP 11MP		
	090 900mm 3EP 6MP 160 6EP 12MP		
	092 920mm 3EP 6MP 172 6EP 12MP		
	100 1000mm 3,5EP 7MP 179 6,5EP 13MP		
	105 1056mm 3,5EP 7MP 180 6,5EP 13MP		
	109 1091mm 3,5EP 7MP 192 7EP 14MP		
	112 1120mm 3,5EP 7MP 200 7EP 14MP		
	118 1180mm 4EP 8MP 209 7,5EP 15MP		
	120 1200mm 4EP 8MP 223 8EP 16MP		
	121 1215mm 4EP 8MP 230 8EP 16MP		
	126 1260mm 4,5EP 9MP		



PROFI MODULE RACK FOR MP

- Light grey body made of melamine resin covered chipboard with tilted front for ergonomically viewing the displays in sitting position.
- Sides with cutout for PROFI extensions.
- Prepared for the acceptance of modules in MP raster.
- Sheet steel ventilation panel (durable powder coated according to RAL-Code) at the front.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.
- Depth: 380 / 325mm.
- Height: 335 / 280mm.



PROFI Module Rack

422.BB F .00 A


BB Width & Equipment

08	800mm 5MP	15	1500mm 10MP
09	900mm 6MP	16	1600mm 11MP
10	1000mm 7MP	18	1800mm 13MP
12	1200mm 8MP	20	2000mm 14MP
13	1295mm 9MP	23	2303mm 16MP

F Extensions

1	SINGLE / MULTI
3	ENERGY

A Version

0	Standard
5	ESD 

EASY MEP RACK FOR EP AND MP

- Body made of 19mm melamine resin covered chipboard with tilted front.
- Prepared for the parallax-free acceptance of modules in MP raster.
- Lower side prepared for the acceptance of modules in EP raster.
- Detachable, powder coated rear panel made of perforated sheet steel, with two cable glands.
- Depth: 350 / 300mm.
- Height: 420mm.



EASY MEP Rack

311.BB5.50 A

BB Width & Equipment

06	567mm	4MP + 2EP	15	1485mm	10MP + 5EP
09	900mm	6MP + 3EP	16	1600mm	11MP + 5,5EP
10	1000mm	7MP + 3,5EP	18	1800mm	13MP + 6,5EP
13	1260mm	9MP + 4,5EP	20	2000mm	14MP + 7EP

A Version

0	Standard
5	ESD 

RETRACTABLE BENCH RACKS FOR A MAXIMUM OF PRECAUTION

Bench racks for EP and MP are available with hideaway - or foldaway mechanism. The electric devices are in safely retracted position if not required. The movement of the bench racks can either be controlled centrally or directly at each workstation.

That way you have the full bench top when the instrument panel is closed and full instrumentation whenever required.

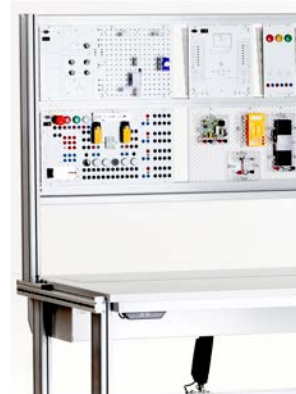


SWIVEL MECHANICS FOR ENERGY BOARD AND MODULE BOARD

- Energy Board or Module Board flush integrated in the bench top with electric lift for up / down movement.
- With double rubber lip for mechanical bruise protection.
- Silent moving lifts with switch-off automatic for electrical bruise protection.
- In retracted position the instruments are safely stored in a powder coated sheet steel hood. The hood is equipped with service flaps.
- Central control from instructor bench or decentral with up/ down button at each bench.
- Depth: 400 - 440mm (depending on type).
- Instrument rack = bench width - 200mm.

System requirements:

- PROFI Workbench
- EASY Energy - or Module Board
- Option Swivel Mechanics



Option Swivel Mechanics

425.900.010



Application with Module Board and MP Modules



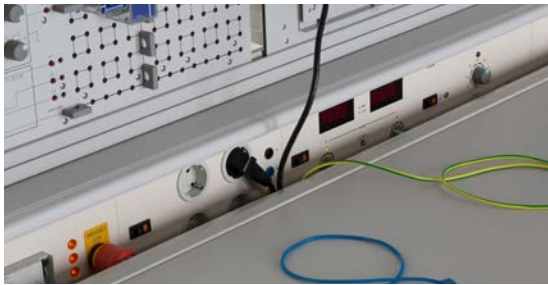
Application with Energy Board and EP Modules

HIDEAWAY MECHANISM FOR ENERGY BOARD AND MODULE BOARD

- Chest made of light grey, 19mm thick melamine resin covered chipboard and leveling feet for uneven grounds. Front side with detachable service flap.
- The instrument side of the chest holds a double rubber lip for mechanical bruise protection.
- Lifting mechanism with 2 lifts, electrical bruise protection (switch off automatics with reverse movement) and programmable lifting speed.
- Central control from instructor bench or decentral with up/ down button at each bench.

Note:

Suitable for each EASY Energy - or Module Board. Modular equipment.



Option Hideaway Mechanism

425.900.100

Double Bruise Protection

- mechanically due to double rubber lip
- electrically due to lifts with switch off automatic




EASY Bench Combination with Hideaway Module Board

HEXAGONAL TEAM RACK FOR EP AND MP

- Completely assembled light grey body, lower side with levelling feet.
- Solid construction with top and bottom made of 30mm melamine resin covered chipboard, which allows to use the surface as shelf.
- Each side prepared for the acceptance of modules in EP or MP raster.
- Rack height for EP version: 190mm (1 level), 360mm (2 levels)
- Rack height for MP version: 280mm (1 level), 530mm (2 levels).



Hexagonal Team Rack 31 G .55 D .5 H A

G Type	D Diameter & Equipment	H Levels	A Version
3 Energy Board	0 1800mm 6x 3EP / 6x 6MP	0 1 Level	0 Standard
4 Module Board	1 1100mm 6x 2EP / 6x 4MP	1 2 Levels	5 ESD 
	2 550mm 6x 1EP / 6x 2MP		



HIDEAWAY MECHANISM FOR HEXAGONAL TEAM RACK (EP/MP)

- Lifting mechanism for hexagonal team racks. The team racks are equipped with detachable service flap.
- Instrument side with double rubber lip for mechanical bruise protection.
- Four silent running lifts with switch-off automatic and reverse movement for electrical bruise protection, programable lifting speed.
- Side with double rubber lip for mechanical bruise protection.
- Central control from instructor bench or decentral with up/ down button at the workstation.



Hideaway Mechanism
for Hexagonal Team Rack

425.900.150



TOWER BOARD, ALUMINIUM FOR EP AND MP

- The Tower Board is made of aluminium profile, both sides equipable.
- Bottom made with N-profile.
- F-profile for cover and intermediate profiles.
- Front and rear side are prepared for the acceptance of modules in EP or MP raster.
- Durable powder coated according to RAL-Code.
- Depth: 300mm; width: 275mm.

Tower Board, Aluminium 314.7 **BB**.000

BB Equipment & Height

11	2x: 1EP + 2MP (394mm)	03	2x: 3x 2MP (711mm)
02	2x: 2x 2MP (483mm)	22	2x: 2x 1EP + 2x 2MP (762mm)
12	2x: 1EP + 2x 2MP (622mm)	60	2x: 6x 1EP (862mm)



Tower Board, Aluminium
1EP+2MP+2MP

EASY TOWER BOARD FOR EP AND MP, WOOD

- Body made of 19mm melamine resin covered chipboard.
- Detachable, powder coated rear panel made of perforated sheet steel, with 2 cable glands.
- Front prepared for the acceptance of modules in EP or MP raster.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency stop cable.
- Width: 302mm.



EASY Tower Board 314.7 **BB** . 5 **T** **A**

BB Equipment & Height

11 1EP + 2MP (395mm)	03 3x 2MP (710mm)
02 2x 2MP (485mm)	22 2x 1EP + 2x 2MP (748mm)
12 1EP + 2x 2MP (620mm)	60 6x 1EP (832mm)

T Depth

2 150mm
3 300mm
6 300mm both sided

A Version

0 Standard
5 ESD 

SIGNAL LAMP

The signal lamps are installed on the rack or extensions, so the status of the workstation is visible from all sides (off, low voltage, mains voltage etc.).

- Signal lamp with foot, diameter: 70 / 40mm.
- Red, green and /or yellow signal element 230V.
- For the assembly to the rack or extension and connected to the mains module.
- Incl. wiring.



Signal Lamp 331.03 **A** . **L** **B** **D**

A Lamp Elements

1 1x LE (red)
2 2x LE (red / green)
3 3x LE (red / green / yellow)

L Version

1 5W Lamp
3 LED

B Fixation

0 for Rack or ENERGY Extension
1 for SINGLE/ MULTI Extension
2 side of Extension

D Diameter

0 70mm Standard
1 40mm Slim



PROFI STATUS-LIGHT RGB

The PROFI Status-Light is an innovative safety feature for electrical lab benches with vertical extensions. It indicates one or more switching modes.

The Status-Light is located at the highest point of a workstation and it clearly visible from all sides. Besides the attractive design it fulfills all requirements for electric accident prevention in educational - and industrial laboratories.

Status-Lights are stackable or alternatively the different operating modes can be indicated by oscillating color changes.

The intelligent multicolor-signalling allows the signalling of different algorithms and flashing lights.

LED Unit consisting of:

- Satined transparent perspex 10mm layer.
- Powder coated aluminium lamp housing (H: 10mm).
- Integrated RGB-LED module for mixed colors.

Control Element consisting of:

- Galvanically isolated power supply.
- Optional 3-channel control element for multicolor signalling, power outputs and 3x potential-free universal inputs (AC/DC 90- 270V).
- Completely installed and wired.

PROFI Status-Lights are available for:

- SINGLE/MULTI Extensions
- ENERGY Extension
- ENERGY Extension 45°



e.g.: 331.041.100 + 331.040.100
Single Color Signalling SINGLE/MULTI Extension



e.g.: 331.042.100 + 331.042.200 + 331.040.500
Two Color Signalling ENERGY Extension



e.g.: 331.044.100 + 2x 331.044.200 + 331.040.500
Three Color Signalling ENERGY Extension 45°, right

PROFI Status-Light		331.04 P A 00	(Note: Control Element required)
P	PROFI Extension	A	Type
1	SINGLE/MULTI	3	ENERGY 45° left
2	ENERGY	4	ENERGY 45° right
Required Control:		1	First LED Level
331.040.100		2	Extra LED Level
331.040.500		Power Supply for Control (only single color signalling)	
		3-Channel Control incl. Power Supply for Color Changing	



CABLE GLAND IN ALUMINIUM CHANNEL

- Slotted hole in aluminium profile with plastic slot cover to maintain height adjustability for shelves with lamps or bench racks.
- Cable gland in aluminium channel.

Cable Gland in Aluminium Channel

458.000.100



INTEGRATED SOCKETS

- Flush in bench top, shelf or bench rack integrated sockets with flap. The sockets are integrated into the main supply of the workstation.
- Available in international standards.

Integrated Sockets

291.006.201	2x Socket
291.006.401	4x Socket



SLEEVE FOR LAMPS WITH HINGED ARMS

- Plastic sleeve integrated into bench top, shelf or bench rack.
- Diameter: 13mm.

Sleeve for Lamps with Hinged Arms

291.003.100



INTEGRATED SOCKETS FOR METAL RACK AND ALUBOARD 350MM

- PE sockets type F with flap, integrated in aluboard compact 350mm or other metal racks (other types on demand!).
- Completely wired and connected to the central supply.

Integrated Sockets for Metal Rack and Aluboard 350mm

291.006.201	2x Type F with Flap
291.006.401	4x Type F with Flap



EP/MP SHELF UNIT

- Shelf unit for the integration into EP or MP racks with suitable depth.
- Made of 3mm aluminium sheet, light grey powder coated.
- Both sides with cable access.
- Depth: 250mm.
- Usable height: 100mm (EP) / 190mm (MP).



EP Shelf Unit 1,5EP



MP Shelf Unit 4MP (optional with integrated socket strip)

EP/MP Shelf Unit		
333.080.502	0,5EP	(W: 132mm)
333.081.002	1EP	(W: 264mm)
333.081.502	1,5EP	(W: 396mm)
333.082.002	2EP	(W: 528mm)
336.082.002	2MP	(W: 264mm)
336.083.002	3MP	(W: 396mm)
336.084.002	4MP	(W: 528mm)

CARRYING CASE FOR EP AND MP

- Sheet steel housing, durable light grey powder coated, with handle and rubber feet.
- Perforated rear and bottom for air ventilation.
- Depth: 300mm.
- Incl. power cable



Carrying Case 394.BB 0. G 01		
BB Equipment	G Type	
10 1EP / 2MP	3	EP, height: 190mm
15 1,5EP / 3MP	4	MP height: 280mm
20 2EP / 4MP		

CARRYING CASE, ALU FOR EP AND MP

- Aluminium housing with grip handles and foldable feet.
- Slotted rear panel, prepared for PC interface, incl. Power Cable.
- Empty (no instrument included).
- Depth: 195mm.



Carrying Case, Alu 394.BB 5. G 01		
BB Equipment	G Type	
10 1EP / 2MP	3	EP, height: 150mm
15 1,5EP / 3MP	4	MP height: 250mm
20 2EP / 4MP		

CABLES AND PLUGS

Flexible cables, completely wired and ready for connection. Plugs for self connections are recommended, if the bench is not fully assembled and plug does not fit through profile openings.



Cables and Plugs

291.001.030	3m (3x 1,5mm ²) with open end	291.001.256	5m (3x 1,5mm ²) with G-type plug (British)
291.001.100	5m (3x 1,5mm ²) with open end	291.001.258	4m (3x 1,5mm ²) with NEMA5-15 plug
291.001.140	F-type plug (Schuko), detachable	291.001.300	5m (5x 2,5mm ²) with CEE plug 16A red
291.001.144	T12-type plug (Swiss), detachable	291.001.350	5m (5x 6mm ²) with CEE plug 32A red
291.001.147	G-type plug (British), detachable	291.001.400	5m (3x 1,5mm ²) with CEE plug, 3poles blue
291.001.257	5m (3x 1,5mm ²) 10A, J-type plug (Swiss)	291.001.500	5m Emergency off cable (2x 1,5mm ²), open end
291.001.200	3m (3x 1,5mm ²) with F-type plug (Schuko)	291.001.550	3m Emergency off cable (2x 1,5mm ²), open end
291.001.250	5m (3x 1,5mm ²) with F-type plug (Schuko)	291.001.603	3m Patch cable, grey, 2x RJ45 jacks CAT6
291.001.130	3m (5x 2,5mm ²) with open end	291.001.605	5m Patch cable, grey, 2x RJ45 jacks CAT6
291.001.150	5m (5x 2,5mm ²) with open end	291.001.610	10m Patch cable, grey, 2x RJ45 jacks CAT6





CHAPTER 10: KP/EP/MP MODULES FOR INSTRUMENT RACKS

277	Blank Panels	306	IMOD Control-Units
278	Compensating Panels	308	IMOD Function-Units AC Source 1phase
279	Mains Panels	310	IMOD Function-Units AC Source 3phase
283	Modules with RFID and Cavity Sockets	312	IMOD Function-Units Lab Power Supply
284	KP Socket Panels	314	IMOD Function-Units High Performance DC Supply
286	EP/MP Socket Panels	315	IMOD Function-Units Function Generator
288	CEE Sockets and Jacks	316	IMOD Function-Units Multimeter
290	Continuity Tester, Selective Poles, Test Speaker	318	IMOD Didactic Supply
291	Isolating Transformers	319	IMOD BenchControl
292	Measuring Module, Analog and Multimeasuring Unit	321	Control Software: IMODdesktop and IMODmobile
294	Interfaces and Keystone Modules	324	ICOM Lab Power Supply
296	Soldering - Desoldering Stations	325	Variable AC Sources 1- and 3phase
298	Pneumatic Modules	328	Function Generators and Power Amplifiers
299	R-Decades and Load Resistances	330	ICOM Function Generator and Multimeters
300	C- and L- Decades	331	Digital Multimeters
301	AC Sources, Extra Low Voltage	334	Oscilloscopes
302	DC Supply, Fixed Voltage	335	Standard Voltage / - Current, Digital Thermometer
303	Regulated DC Supply Compact	336	Pneumatic Calibrators
304	ICOM Didactic Supply	337	Electrical Appliance Tester

SELECT THE PERFECT CONFIGURATION FOR YOUR INDIVIDUAL TASKS

The modules of the KP -, EP - and MP System are characterized by following technical features:

- 3mm aluminium front panel with durable powder coating and abrasion proofed silkscreen printing
- each module is equipped with in- and output coupler for upgrading your workstation later on

- height: KP = 90mm
EP = 132mm (3HU)
MP = 221mm (5HU)
- width: KP = 40mm
EP = 264mm (52TE)
MP = 132mm (26TE)



KP **BLANK PANEL**

- For closing open spaces in KP channels.
- Aluminium front panel with fixing screws.

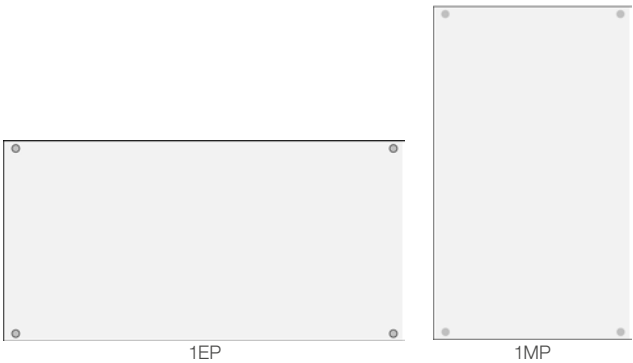
KP Blank Panel 321.0 BB.002					
BB Width					
01	40mm	07	280mm	13	520mm
02	80mm	08	320mm	14	560mm
03	120mm	09	360mm	15	600mm
04	160mm	10	400mm	16	640mm
05	200mm	11	440mm	17	680mm
06	240mm	12	480mm		



EP/ MP **BLANK PANEL**

- For closing open spaces in EP / MP channels.
- Aluminium front panel with fixing screws.

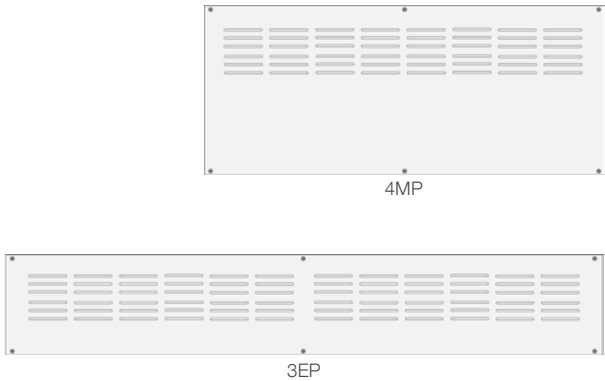
Blank Panel 33 S . BB 0.102				
S System		BB Width		
3	EP	05 0,25 EP	30	1,5 EP 1,5 MP
6	MP	10 0,5 EP 0,5 MP	40	2 EP 2 MP
		15 0,75 EP	60	3 EP 3 MP
		20 1 EP 1 MP	80	4 EP 4 MP
		25 1,25 EP		



EP/ MP **BLANK PANELS WITH VENTILATION SLOTS**

- For closing open spaces in EP / MP channels.
- Aluminium front panel with fixing screws.

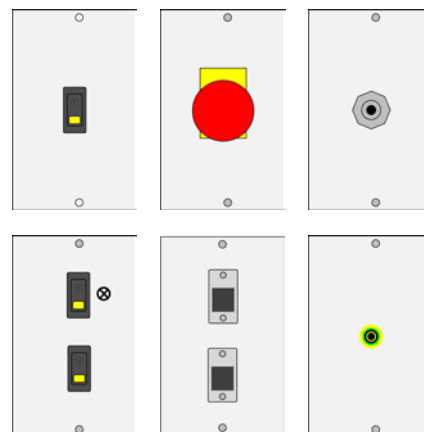
Blank Panel 33 S . BB 0.202				
S System		BB Width		
3	EP	10 0,5 EP	40	2 EP 2 MP
6	MP	20 1 EP 1 MP	60	3 EP 3 MP
		30 1,5 EP 1,5 MP	80	4 EP 4 MP



EP/ MP COMPENSATING PANEL WITH EQUIPMENT

- The EP / MP racks have left and / or right sided a compensating panel which can be equipped with listed modules.

Compensating Panel with Equipment	
333.800.100	1x Illuminated Switch, 2poles
333.800.150	2x Illuminated Switch, 2poles
333.800.200	1x Emergency Off Button, unwired
333.800.250	1x Emergency Off Button with Key, unwired
333.800.310	1x Keystone Adapter
333.800.320	2x Keystone Adapter
333.800.400	1x Quick Connector Pressured Air NW 7,2
333.800.500	1x 4mm PE Jack

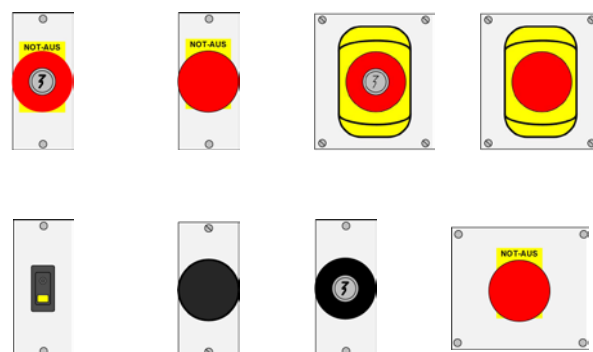


KP PANEL WITH EMERGENCY OFF OR SWITCH

- Emergency off button with two opener contacts, unwired.

Emergency Off Button or Switch 322.100. N E	
N Type	E Installation
0 Emergency Off with Key	0 horizontal (1KP)
1 Emergency Off	5 vertical (2KP)
2 Emergency Off with Collar and Key	(only Emergency Stop)
3 Emergency Off with Collar	
5 Illuminated Switch, 2poles	
6 Black Emergency Stop	
7 Black Emergency Stop with Key	

332.001.000 Extra NC Contact for Emergency Off (unwired)

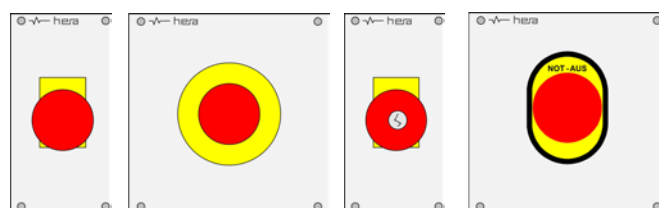


EP / MP PANEL WITH EMERGENCY OFF

- Emergency off button with two opener contacts, unwired.

EP Panel with Emergency Off Button	
332.056.102	Emergency Off (0,25EP)
332.106.102	Emergency Off (0,5EP)
332.066.102	Emergency Off with Key (0,25EP)
332.057.102	Black Emergency Stop (0,25EP)
332.067.102	Black Emergency Stop with Key (0,25EP)
332.156.102	Emergency Off with Collar (0,5EP)
332.166.102	Emergency Off with Collar and Key (0,5EP)

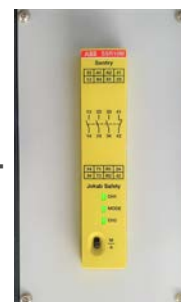
MP Panel with Emergency Off Button	
335.056.102	Emergency Off (0,5MP)
335.066.102	Emergency Off with Key (0,5MP)
335.057.102	Black Emergency Stop (0,5MP)
335.067.102	Black Emergency Stop with Key (0,5MP)
335.106.102	Emergency Off with Collar (0,5MP)
335.156.102	Emergency Off with Collar and Key (0,5MP)



ALLWAYS ON THE SAFE SIDE WITH VARIOUS SAFETY CATEGORIES

Following **safety features** for workstations are in our standard range:

- **Over Current - / Short Circuit Protection:** motor circuit breaker of quality brand, also serving for central on/ off.
- **Human Protection:** RCD 30mA type A or type B (recommended for experimental labs where residual currents with smooth DC portion might occur).
- **Emergency Off Function Category 1:**
Realized with emergency off button, effecting the undervoltage release of the motor circuit breaker.
- **Optionally Emergency Off Function Category 4** (redundant tripping function and surveillance)
Safety relay, emergency off button with 2nd NCC, redundant tripping function and surveillance due to double undervoltage release and auxiliary contacts.



- **332.056.102**
Emergency Off with 2x NCC
- **332.237.402**
3phase Mains Panel type B for higher safety category 4
- **928.098.200**
Module with Safety Relay category 4



KP Mains Panel 16A 1phase 230V, RCD type A and Emergency Off



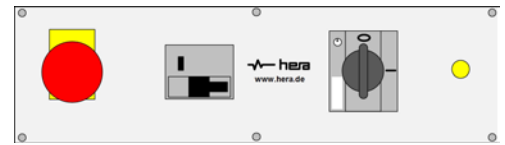
EP Mains Panel 16A 3phase, RCD type A and Emergency Off



MP Mains Panel 16A 1phase, RCD type A and Emergency Off with Key

KP/EP/MP MAINS PANEL 16A

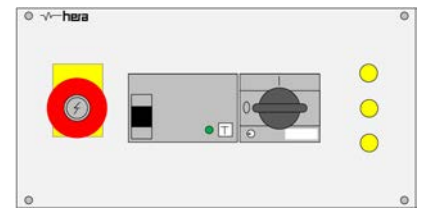
- Voltage control lamps.
- Motor circuit breaker and undervoltage release.
- Residual current device (RCD) 25A / 30mA type A.
- or: RCD 25A / 30mA type B
(recommended for equipment where residual current might have smooth DC portion).
- Emergency off button effecting the undervoltage release and 2nd NCC for the optional connection to the inhouse emergency off loop. Alternatively with black stop button.
- or: emergency off category 4 with redundant circuit breaking and surveillance with two motor circuit breakers with undervoltage release and auxiliary contacts.
- KP modules are available in horizontal and vertical position (for ENERGY extensions).
- Completely wired with input terminal and output coupler.



322.110.102 1phase, RCD type A (8KP)

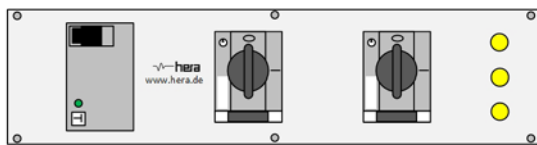


322.132.202 3phase, no RCD with black key button (6KP)

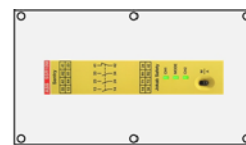


322.237.202 3phase, RCD type B (1EP)

Example for Mains Panel with Emergency Off Cat. 4:

322.131.402
Mains Panel 3phase, RCD type B for Emergency Off cat. 4 (9KP)

+

322.100.402
Panel with Safety Relay cat.4 (4KP)

+

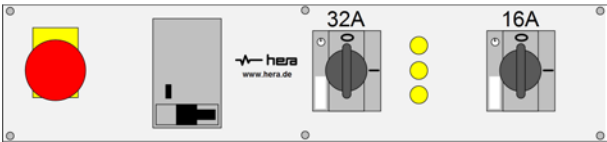
322.100.102
Emergency Off Button (1KP)

KP Mains Panel		322.1 P T N E 2	
P Phases	T RCD	N Emergency Off	E Tripping Current
1 1phase 230V	0 Type A (8KP)	0 Emergency Off with Key	0 horizontal / 12,5 - 16A
3 3phase 400V	1 Type B (8KP)	1 Emergency Off	2 horizontal / 9 - 12,5A
	2 no RCD (6KP)	2 Black Emergency Stop with Key	5 vertical / 12,5 - 16A
322.100.402: Module with Safety Relay cat. 4 (4KP)		6 Black Emergency Stop	7 vertical / 9 - 12,5A
		3 no Emergency Button (minus 1KP)	
		4 Emergency Off, cat.4 (plus 1KP) without Emergency Button	
322.1xx.xx8 Mains Panels 120V Versions			

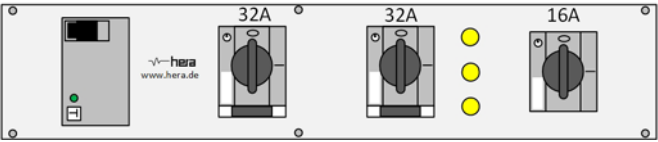
EP/MP Mains Panel		33 S .2 P T N 02	
S System	P Phases	T RCD	N Emergency Off
2 EP	1 1phase 230V	0 no RCD	0 no Emergency Button
5 MP	3 3phase 400V	5 Type A	1 Emergency Off Button
		7 Type B	2 Emergency Off Button with Key
332.200.402: Module with Safety Relay cat. 4 (0,5EP)			3 Black Emergency Stop Button with Key
335.200.402: Module with Safety Relay cat. 4 (0,5MP)			6 Black Emergency Stop Button
			4 Emergency Off cat. 4
33x.2xx.x08 Mains Panels 120V Versions			

KP/EP/MP MAINS PANEL 32A

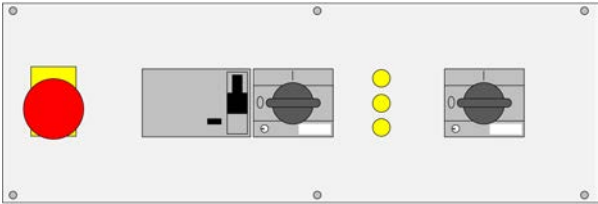
- 3x Voltage control lamps.
- Motor circuit breaker 32A and 16A with undervoltage release.
- Residual current device (RCD) 40A / 30mA type A.
- or: RCD 40A / 30mA type B (recommended for equipment where residual current might have smooth DC portion).
- Emergency off button effecting the undervoltage release and 2nd NCC for the optional connection to the inhouse emergency stop loop. Alternatively with black emergency stop button.
- or: emergency off category 4 with redundant circuit breaking and surveillance with two motor circuit breakers with undervoltage release and auxiliary contacts.
- 32A output terminal for connecting 32A modules.
- or: CEE socket 32A and safety jacks to tap 32A.
- Completely wired with input terminal and output coupler.



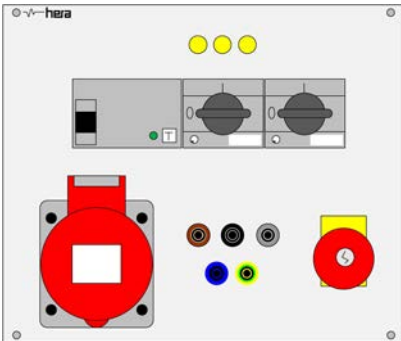
322.330.102 Mains Panel 32A with RCD type A (10KP)



322.331.402 Mains Panel 32A with RCD type B, emergency off cat. 4 (11KP)



332.435.104 (EP)
RCD type A, emergency off
cat. 4, 32A terminal



335.437.202 (MP)
RCD type B with CEE
socket 32A and jacks

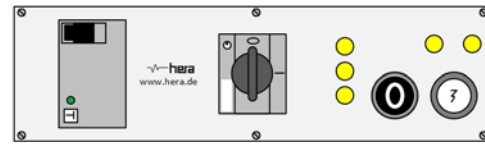


KP Mains Panel 32A		322.33 T . N E 2	
T RCD	N Emergency Off	E Installation	
0 Type A (10KP)	0 Emergency Off Button with Key	0	horizontal
1 Type B (10KP)	1 Emergency Off Button	5	vertical
2 no RCD (8KP)	2 Black Emergency Stop Button with Key		
322.100.402:	6 Black Emergency Stop Button		
4 KP Module with Safety Relay cat. 4	3 no Emergency Button (minus 1KP)		
	4 Emergency Off cat. 4 (plus 1KP) Note: without Emergency Button		

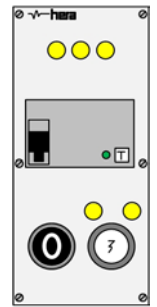
EP/MP Mains Panel 32A		33 S . 43 T . N 0 A	
S System	T RCD	N Emergency Off	A Feature
2 EP	0 no RCD	0 no Emergency Button	2 with CEE 32A + Safety Jacks
5 MP	5 Type A	1 Emergency Off Button	4 with 32A Terminal
	7 Type B	2 Emergency Off Button with Key	
332.200.402: Module with Safety Relay cat. 4 (0,5EP)		3 Black Emergency Stop Button with Key	
335.200.402: Module with Safety Relay cat. 4 (0,5MP)		6 Black Emergency Stop Button	
		4 Emergency Off cat. 4 Note: no Emergency Button	

KP/EP/MP MAINS PANEL WITH CONTACTOR ACTIVATION

- Voltage control lamps.
- Miniature circuit breaker (MCB) B16.
- or: motor circuit breaker (CB) with undervoltage release (UVR) for workstation-effective emergency stop (Note: without emergency stop button).
- Residual current device (RCD) 25A / 30mA type A.
- or: residual current device (RCD) 25A / 30mA type B (for educational labs complying VDE 0100-723).
- 1- or 2-level activation with on / off button, contactors and status indication.
- or: 1- or 2-level activation with contactors and status indication for the remote control from the instructors' bench.
- Completely wired with input terminal and output coupler.



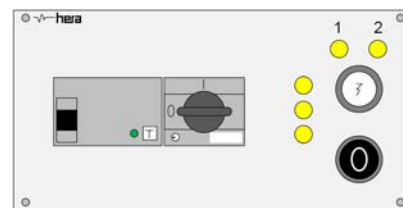
322.267.202 3phase CB, RCD type B and 2-level activation 8KP



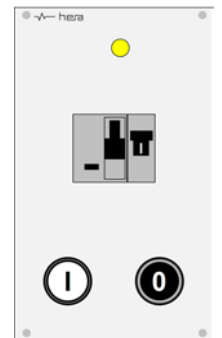
322.247.252 3phase, RCD type B, 2-level activation 5KP



322.287.202 3phase with MCB B16, RCD type B, 2-level activation 8KP



322.257.202 3phase with CB, RCD type B, 2-level activation 1EP



335.275.102 1phase with MCB B16, RCD type A, 1-level activation 1MP

KP Mains Panel with Contactor 322.2 **P T F E 2**

P Phase	T RCD	F Activation	E Position
2 1phase, without Circuit Breaker	0 no RCD	0 1-level with On /Off Button	0 horizontal
4 3phase, without Circuit Breaker	5 Type A	1 1-level with Key-On / Off Button	5 vertical
5 1phase, CB + UVR for Emergency Stop	7 Type B	2 2-level with Key-On / Off Button	
6 3phase, CB + UVR for Emergency Stop		4 1-level, for Remote Control (no Buttons)	
7 1phase MCB B16		5 2-level, for Remote Control (no Buttons)	
8 3phase MCB B16			

322.2xx.x08 Mains Panels 120V Versions

EP/MP Mains Panel with Contactor 33 **S 2 P T F 02**

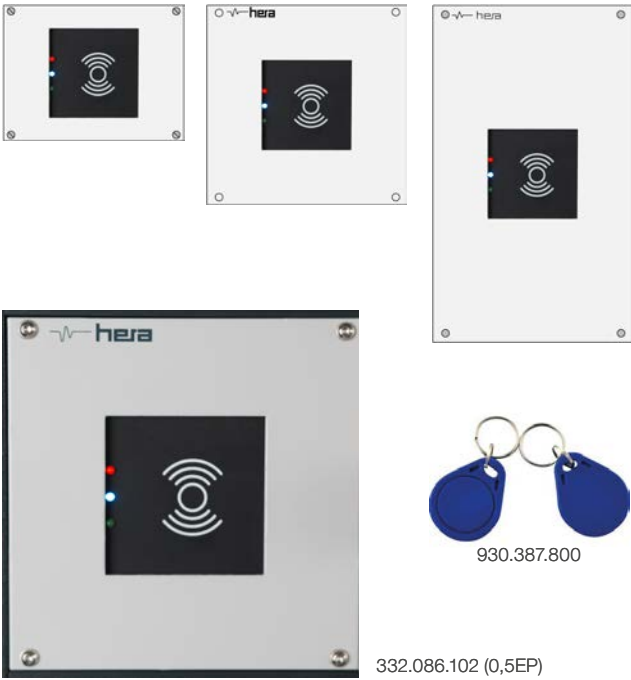
S System	P Phase	T RCD	F Activation
2 EP	2 1phase, without Circuit Breaker	0 no RCD	0 1-level with On /Off Button
5 MP	4 3phase, without Circuit Breaker	5 Type A	1 1-level with Key-On / Off Button
	5 1phase, CB + UVR for Emergency Stop	7 Type B	2 2-level with Key-On / Off Button
	6 3phase, CB + UVR for Emergency Stop		4 1-level, for Remote Control (no Buttons)
	7 1phase MCB B16		5 2-level, for Remote Control (no Buttons)
	8 3phase MCB B16		

33x.2xx.x08 Mains Panels 120V Versions

KP/EP/ MP RFID MODULE FOR ACTIVATION

- Max. 250 programmable cards or chips.
- Suitable for customer specific tags:
64 Bit Read Only in 125kHz system
(EM4100, EM4102).
- Managing app for adding / deleting RFID tags (cards, chips, etc) via rear sided USB interface.
- Admin card for the programming of more RFID tags.
- 3x status led and buzzer.
- Output relays.
- Incl. 2 cards.

RFID Module for Activation	
322.100.802	RFID Module (3KP)
332.086.102	RFID Module (0,5EP)
335.086.102.	RFID Module (1MP)
930.387.800	Transponder Chip with Ring for Key



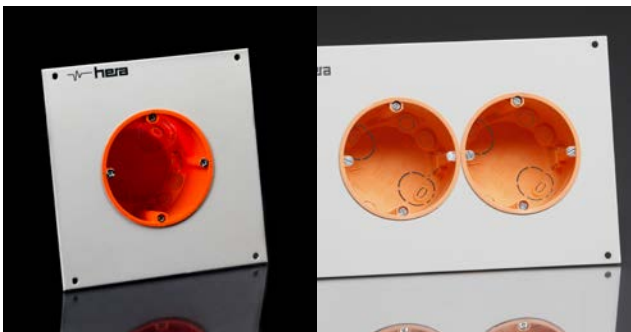
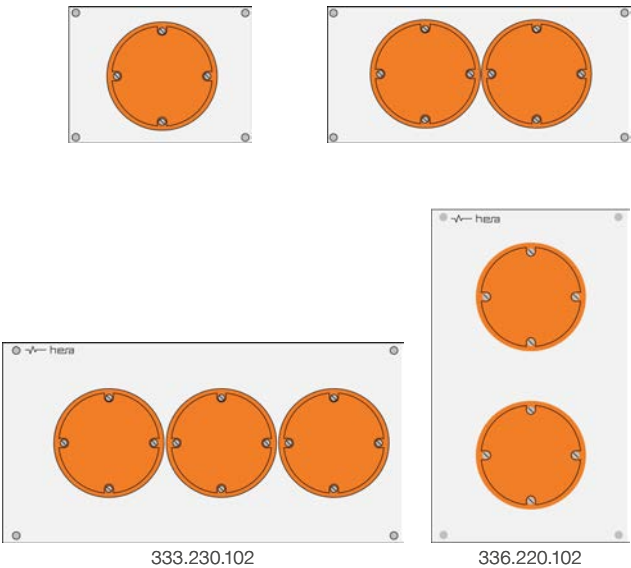
KP/EP/MP CAVITY BOX

- Module with cavity box for the flexible equipment with installaton components.

KP Cavity Box	
321.1	A 0.002
A No. of Cavities	
1	3KP
2	5KP
3	7KP

EP/MP Cavity Box	
33	S BB0.102
S System	
3	EP
6	MP
BB Width	
12	1x Cavity Box (0,5EP)
22	2x Cavity Box (1EP / 1MP)
23	3x Cavity Box (1EP)

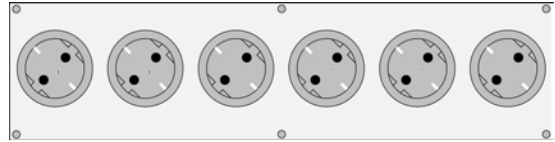
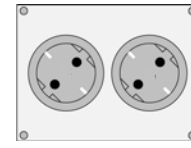
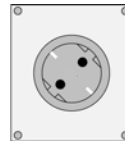
Equipment for Cavity Box	
333.220.500	Cover, 1fold
333.220.502	Cover, 2fold
333.220.510	TV Antenna Socket, 2 holes
333.220.520	SAT Antenna Socket, 3 holes
333.220.530	Double UAE Socket RJ45
333.220.540	TAE Socket 6F
333.220.550	red Schuko Socket with Label Field
333.220.560	USB-Charging Socket, 2x 2,4A



KP SOCKET PANEL, NO SWITCH (TYPE F)

- Sockets type F with protective earth, 45° positioned.
- With wire harness and couplers.

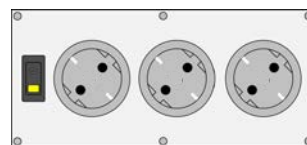
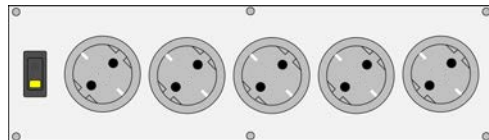
Socket Panel Type F, no Switch 323.0 A 0.0 E 2			
A No. of Sockets		E Position	
1	2KP	4	6KP
2	3KP	5	8KP
3	5KP	6	9KP
		0	horizontal and vertical right
		5	vertical left



KP SOCKET PANELS WITH SWITCH (TYPE F)

- Sockets type F with protective earth, 45° positioned.
- Illuminated 2poles switch for central on/ off.
- With wire harness and couplers.

Socket Panel Type F with Switch 323.0 A 1.0 E 2			
A Number of Sockets		E Position	
1	2KP	4	7KP
2	4KP	5	8KP
3	5KP	6	10KP
		0	horizontal and vertical right
		5	vertical left



IT SOCKET PANEL

All KP socket modules are available for supply of IT equipment.

- With red front panel or red frame.
- Not connected to the mains panel but with separate terminal clamp.

IT Sockets	323.xxx.xx6
------------	-------------

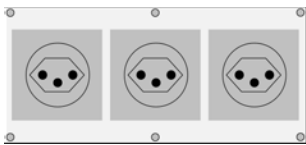


KP INTERNATIONAL SOCKET PANELS

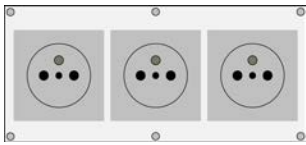
- Socket panels with international standards, dimensions 60 x 60mm.
- Socket panels with / without illuminated 2poles switch for central on/off.
- All socket panels are optionally available as IT socket panels with red front panel or frame, with separate terminal and not connected to the mains panel.
- Other international sockets on demand!



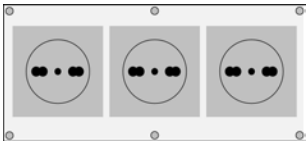
Sockets with Flap



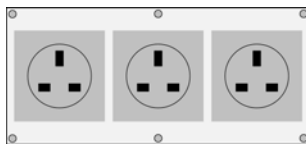
Type J 230V / 10A (Swiss)



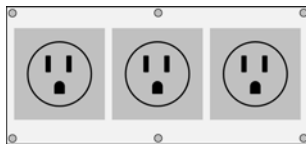
Type E 230V / 16A (Franco-Belgian)



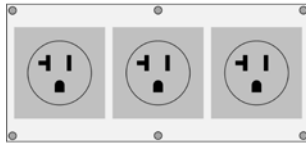
Type L 230V / 10A (Italian)



Type G 240V / 13A (British)



NEMA 5-15R 125V / 15A (USA)



NEMA 6-20R 250V / 20A (USA)

International Socket Panels 323.0 A S L E F

A	Sockets, No.	S	Switch	L	Type	E	Position	F	Version
1	2KP	0	no Switch	2	Type F with Flap	0	horizontal	2	Standard
2	3KP	1	with Switch	3	Type J No. 23 (16A) - Swiss	5	vertical	6	IT (red)
3	5KP			4	Type J No. 13 (10A) - Swiss	928.047.700: 4x Type I, vertical (6KP), Chinese 928.103.400: 1x Type D + 6A CB, Indian (5KP)			
4	6KP			5	Type E 230V / 16A - Franco/ Belgian				
5	8KP			6	Type L 230V / 10A - Italian				
6	9KP			7	Type G 240V / 13A - British				
				8	NEMA 5-15 125V / 15A - USA				
				9	NEMA 6-20 250V / 20A - USA	Other types on demand!			

KP PANEL WITH EQUIPOTENTIAL BONDING

- Module with jack for equipotential bonding POAG-ID6.
- Wired to the PE of the terminal clamp.
- With connecting cable and lab plug.



321.300.200:
Equipotential Bonding (1KP)



321.300.000:
Lab Plug



321.300.100:
Lab Cable

KP Panel with Equipotential Bonding

321.300.200	Panel with Equipotential Bonding POAG (1KP)
331.300.200	Panel with Equipotential Bonding POAG (0,25EP)
321.300.000	Lab Plug POAG M6 with Color Code
321.300.100	100cm yellow / green Lab Cable

KP PANEL WITH CABLE INSERT

- Panel with plastic cable access insert 60mm and clipped cover segment.
- Panels with Cable gland M20 / M25.

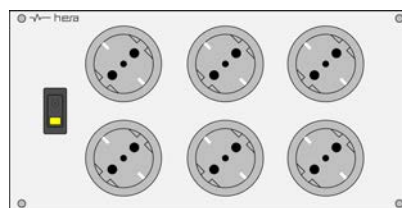


KP Panel with Cable Insert

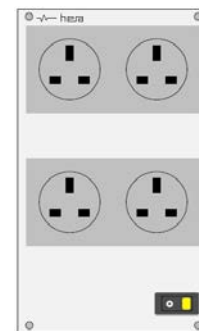
321.210.002	Cable Access Insert, light grey, 60mm (2KP)
321.210.102	Cable Access Insert, anthracite, 60mm (2KP)
321.201.002	1x Cable Gland M20 (1KP)
321.202.002	2x Cable Gland M20 + M25 (1KP))

EP/ MP SOCKET PANELS WITH SWITCH

- Sockets type F with protective earth, 45°positioned.
- International sockets with protective earth and mounting frame.
- Illuminated 2poles switch for central on/ off.
- With wire harness and couplers.
- Other types on demand!



333.261.102 Type F (1EP)



336.241.172 (1MP)

D Type

Type J
SwissType E
Franco/BelgianType L
ItalianType G
BritishNEMA 5-15
USANEMA 6-20
USA

Examples: EP/ MP Socket Panels with Switch

333.121.102
(0,5EP)

333.221.172 (1EP)



333.421.102 (2EP)

336.221.102
(0,5MP)

Socket Panel with Switch

33 S AA1.1 D 2

S System

3	EP	12	2x Sockets (0,5EP)
6	MP	22	3x Sockets (1EP / 0,5MP)
		24	4x Sockets (1EP / 1MP)
		26	6x Sockets (1EP / 1MP)
		42	5x Sockets (2EP)

930.158.000: 6x Type I with Switch (1EP), Australian/ Chinese

930.207.600: 4x Type I (0,75EP, Australian/ Chinese)

930.254.400: 3x Type I with Switch (1EP), Australian/ Chinese

930.385.000: 4x Type I with Flap (1EP), Australian/ Chinese

930.402.700: 2x Type D with 5A Circuit Breaker (0,75EP), Indian

D Type

0	Socket Type F
2	Socket with Flap, Type F
3	Socket Type J, No. 23 (250V / 16A)
4	Socket Type J, No. 13 (250V / 10A)
5	Socket Type E 230V / 16A
6	Socket Type L 230V / 10A
7	Socket Type G 240V / 13A
8	USA NEMA 5-15 125V / 15A
9	USA NEMA 6-20 250V / 20A

IT Sockets

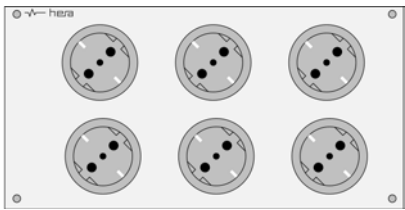
red frame and terminal for separate connecting cable

33X.XXX.XX3

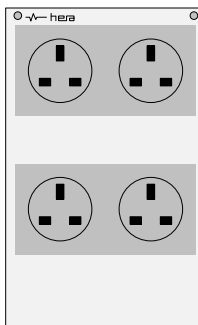


EP/ MP SOCKET PANELS WITHOUT SWITCH

- Sockets type F with protective earth, 45°positioned.
- International sockets with protective earth and mounting frame.
- With wire harness and couplers.
- Other types on demand!



333.331.102 (1EP)

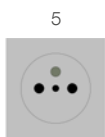


336.131.172 (1MP)

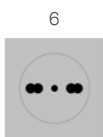
D Steckdose



Type J
Swiss



Type E
Franco/Belgian



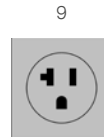
Type L
Italian



Type G
British



NEMA5-15
USA



NEMA6-20
USA

Examples: EP/ MP Socket Panels without Switch



333.031.102
(0,25EP)



333.131.102
(0,5EP)



333.231.102 (1EP)



333.431.102 (2EP)



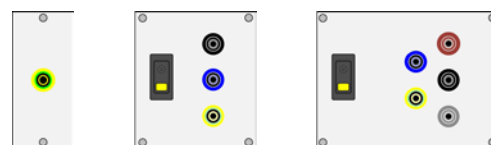
336.231.102 (0,5MP)

Socket Panel without Switch			33 S A 31.1 D 2
S System	A Version	D Type	
3 EP	0 2x Sockets (0,25EP)	0	Socket Type F
6 MP	1 4x Sockets (0,5EP, Intern. 0,75EP)	2	Socket with Flap, Type F
	2 3x Sockets (1EP / 0,5M)	3	Socket Type J, No. 23 (250V / 16A)
	3 6x Sockets (1EP / 1MP)	4	Socket Type J, No. 13 (250V / 10A)
	4 6x Sockets (2EP)	5	Socket Type E 230V / 16A
		6	Socket Type L 230V / 10A
		7	Socket Type G 240V / 13A
		8	USA NEMA 5-15 125V / 15A
		9	USA NEMA 6-20 250V / 20A
IT Sockets		33X.XXX.XX3	
red frame and terminal for sepeare connecting cable			



KP AC MODULE WITH SAFETY JACKS

- 4mm safety jacks.
- Optionally with illuminated switch, 3phase-type with downstream contactor.
- With wire harness and couplers.



AC Module with Safety Jacks

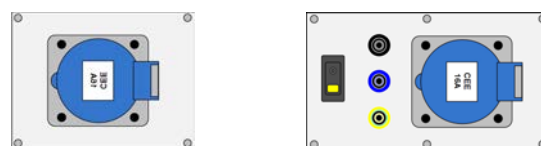
323.5 **PS** .002

PS Type

00	PE Jack green/yellow (1KP)	11	1phase / with Switch (2KP)	31	3phase / with Switch (3KP)
01	ESD Jack white (1KP)	30	3phase / no Switch (2KP)	51	3phase / with Rotation Switch (4KP)
10	1phase / no Switch (1KP)				

KP MODULE WITH 1PHASE CEE SOCKET

- Blue CEE socket, straight 6h 3poles 230V / 16A.
- Optionally with illuminated switch, key-switch type with downstream contactor.
- Optionally with 4mm safety jacks (L, N, PE).



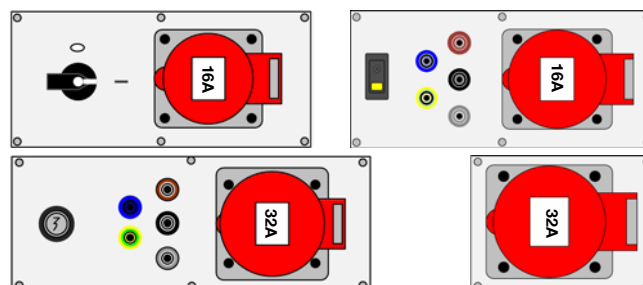
Module with 1phase CEE Socket 323.10 **S.B** 02

S.B Type

0.0	no Switch / no Jacks (3KP)	1.0	with Switch / no Jacks (4KP)	2.0	with Key Switch / no Jacks (4KP)
0.1	no Switch / with Jacks (3KP)	1.1	with Switch / with Jacks (5KP)	2.1	with Key Switch / with Jacks (5KP)

KP MODULE WITH 3PHASE CEE SOCKET

- Red CEE socket, straight 6h, 5poles 400V.
- Optionally with illuminated switch, key-switch type with downstream contactor.
- or: 3poles rotation switch.
- Optionally with 4mm safety jacks (L1, L2, L3, N, PE).
- With wire harness and couplers.



Module with 3phase CEE Socket

323.1 **VW** . **B** 02

V Type

3 16A**5** 32A

W Switch

0 no Switch (3KP)**1** Illuminated Switch (4KP)**2** Key Switch (5KP)**5** Rotating Switch (16A: 4KP / 32A: 5KP)**6** Rotation Field Selector (5KP)

(right / off / left)

B Jacks

0 no Jacks**1** with Jacks (+ 1KP)

EP/ MP MODULE WITH 1PHASE CEE SOCKET

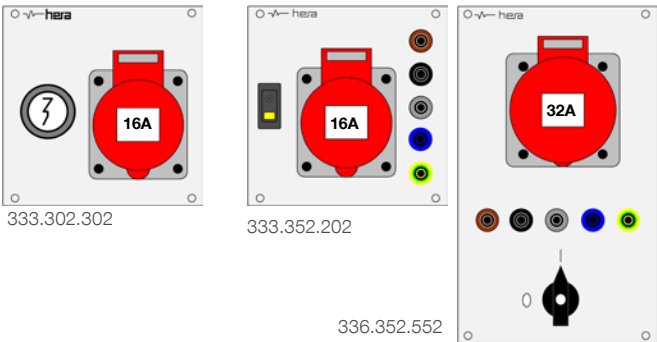
- Blue CEE socket, straight 6h 3poles 230V / 16A.
- Optionally with illuminated switch, key-switch type with downstream contactor.
- Optionally with 4mm safety jacks (L, N, PE).
- With wire harness and couplers.



Module with 1phase CEE Socket			
33 S AA 2. W 02			
S System	AA Type	W Switch	
3 EP	00 PE Jack (0,25EP / 0,5MP)	13	Jacks and CEE (0,5EP / 1MP)
6 MP	03 Safety Jacks (0,25EP / 0,5MP)	23	Jacks and CEE (1EP)
	10 CEE (0,5EP / 1MP)	1	no Switch
		2	with Switch
		3	with Key-Switch

EP/ MP MODULE WITH 3PHASE CEE SOCKET

- Red CEE socket, straight 6h, 5poles 400V.
- Optionally with illuminated switch, key-switch type with downstream contactor.
- or: 3poles rotation switch.
- Optionally with 4mm safety jacks (L1, L2, L3, N, PE).
- With wire harness and couplers.



Module with 3phase CEE Socket			
33 S AA 2. W C 2			
S System	AA Type	W Switch	C Current
3 EP	05 Jacks (0,25EP / 0,5MP)	35 Jacks and CEE (0,5EP / 1MP)	1 no Switch
6 MP	30 CEE (0,5EP / 1MP)	45 Jacks and CEE (1EP)	3 with Key-Switch
		2 with Switch	5 with Rotation Switch
		6 Rotation Field Selector (right / off / left)	0 16A
			5 32A

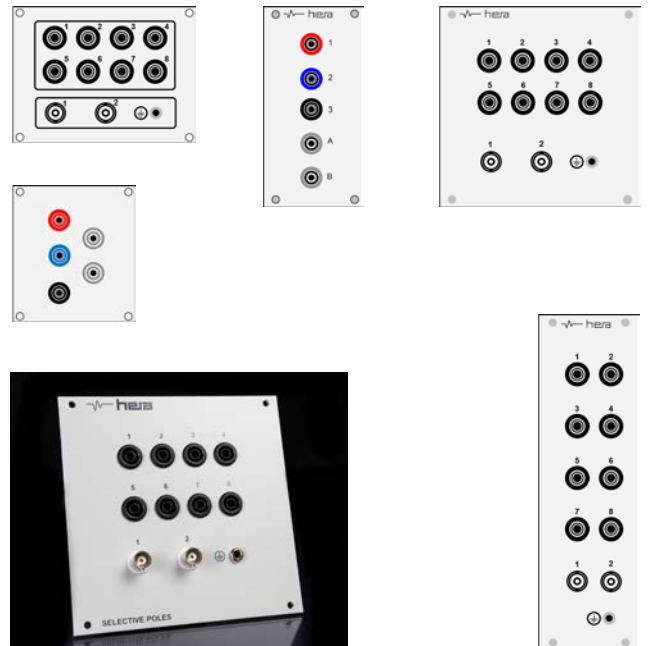


KP/EP/MP MODULE WITH SELECTIVE POLES

- Selective poles are applicable for educational labs, if voltage signals from the instructor bench should be distributed to the trainees benches. Selective poles are unwired and need to be connected on-site.
- 4mm safety jacks (SLB).
- BNC sockets.

KP Selective Poles		323.8	A	0.0	E	2
A	Type	E Position				
0	5x Jacks (2KP)	0 horizontal				
1	8x Jacks + 2x BNC (3KP)	5 vertical				

EP/MP Selective Poles		33	S	.850	A	02
S	System	A Type				
3	0,25EP / 0,5EP	1 5x Jacks				
6	0,5MP	2 8x Jacks + 2x BNC				



KP/EP/MP MODULE WITH CONTINUITY TESTER

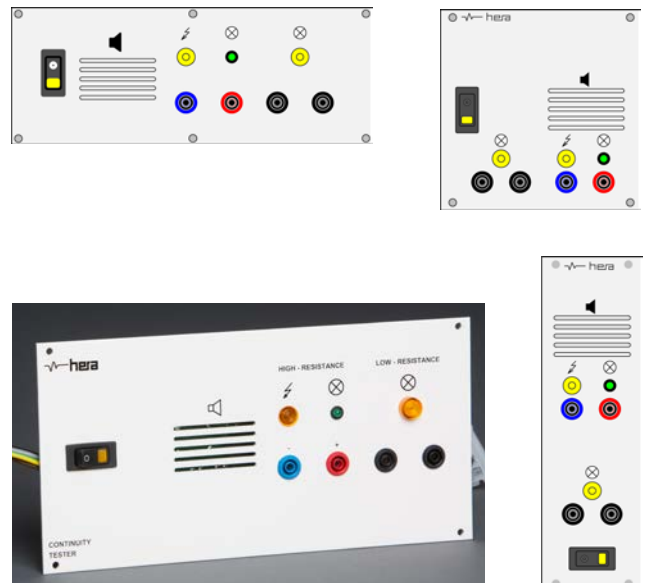
High-ohmic electric continuity test, poled:

- Resistance range: 0...200k Ω with accoustic (sound alternation with changing resistance) and optic signal.
- External voltage protection (> 400V) and signal lamp indication.

Low-ohmic electric continuity test with 24VAC:

- Signal lamp for indication.
- 4mm safety jacks for connection.
- Illuminated 2poles switch for central on /off.

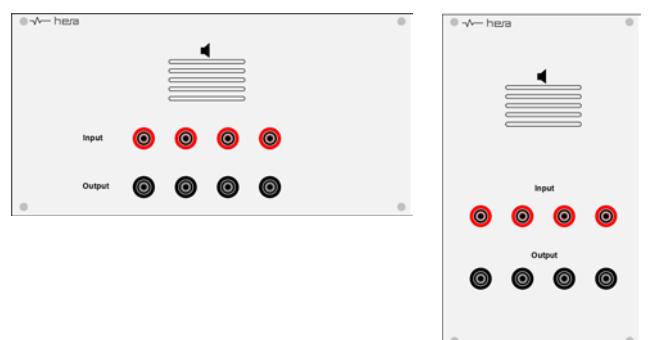
Module with Continuity Tester	
327.100.002	6KP horizontal
327.100.052	6KP vertical
334.121.602	0,5EP
337.121.602	0,5MP



EP/MP MODULE WITH TEST SPEAKER

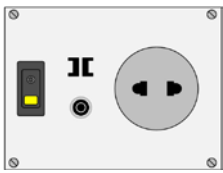
- Test speaker 10W / 8 Ω .
Transmission range: 130-20.000Hz.
- Upstream transmitter for impedance matching.
Transmission range: 40 - 20.000Hz.
Primary winding: 2k Ω / 4k Ω / 8k Ω / 16k Ω .
Secondary winding: 4 Ω / 8 Ω / 16 Ω .
- 4mm safety jacks for connection.

Module with Test Speaker	
334.090.302	1EP
337.090.302	1MP

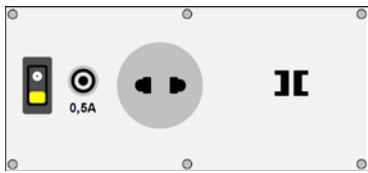


KP/EP/MP MODULE WITH ISOLATING TRANSFORMER

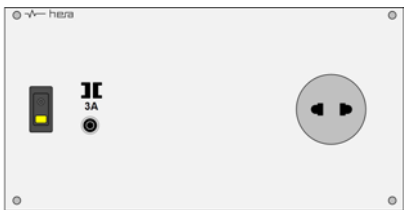
- KP module with isolating transformer for the supply of floating 230VAC. The tranformer for the 700VA is seperately housed and optionally in an instrument rack or cable tray of the bench.
- EP / MP module with isolating transformer for floating 230VAC.
100VA isolating transformer (88 x 66 x 61mm).
115VA isoltating transformer (110 x 100x 85mm).
700VA iron core transformer (165 x 70mm).
- Protected by a front-side operated thermomagnetic fuse.
- Output at universal socket (Type F / Franco-American) without protective earth.
Optionally with selector switch for safety jacks and LED indication.
- Illuminate 2poles switch for central on /off.



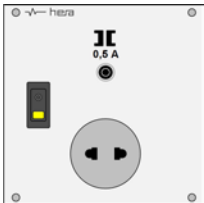
325.700.002 700VA (3KP)



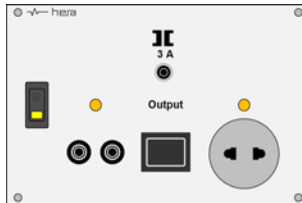
325.115.002 115VA (5KP)



333.010.302 100VA (1EP)



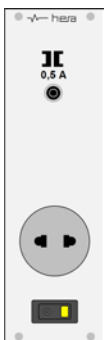
333.012.302 115VA (0,5EP)



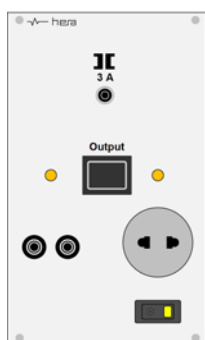
333.170.302 700VA (0,75EP)

KP Module Isolating Transformer		325.AAA.0 E 2	
AAA Type		E Position	
115	115VA / 0,5A (5KP)	0	horizontal
700	700VA / 3A (3KP)	5	vertical

EP/MP Module Isolating Transformer		33 S AAA.302	
S	System	AAA	Type
3	EP	010	100VA / 0,43A, for Energy Channel (1EP)
6	MP	012	115VA / 0,5A (0,5EP / 0,5MP)
		112	115VA / 0,5A, Jacks + Socket (0,75EP / 1MP)
		070	700VA / 3A (0,5EP / 0,5MP)
		170	700VA / 3A, Jacks + Socket (0,75EP / 1MP)
33x.xxx.308		120V Version	



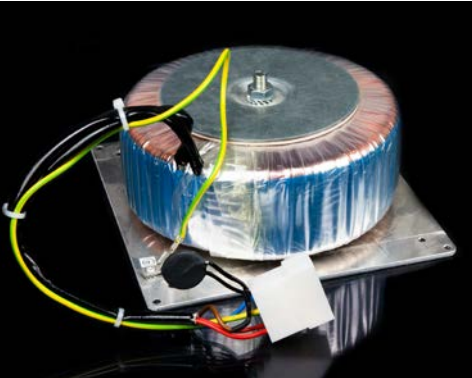
336.012.302 115VA (0,5MP)



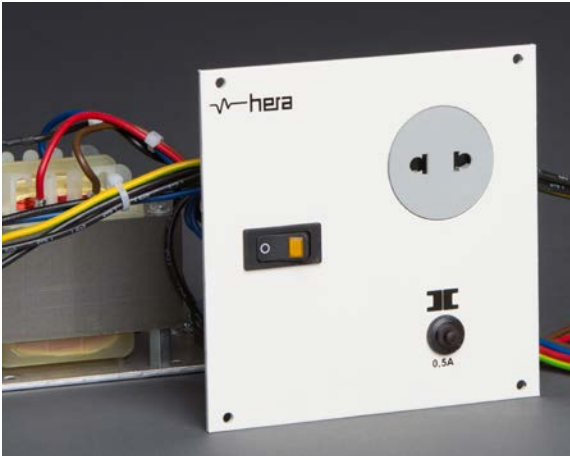
336.170.302 700VA (1MP)



KP Module with Univeral Socket and Isolating Transformer 115VA



700VA Isoltating Transformer and Inrush Current Limiter

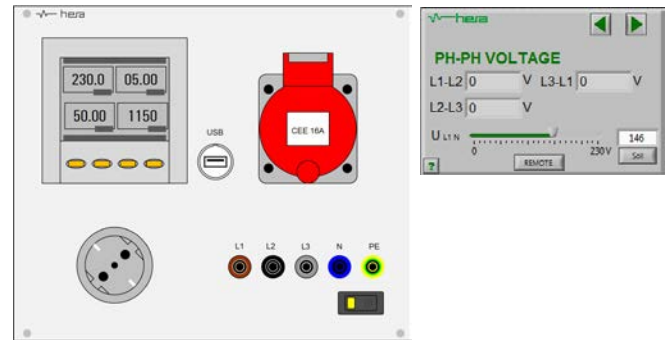
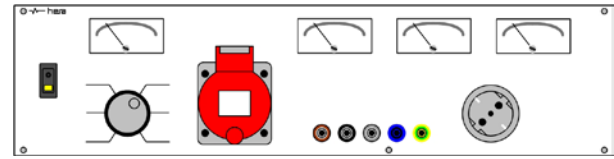


EP Module with Universal Socket and Isolating Transformer 115VA

EP/MP MEASURING MODULE

The module is for measuring and testing the parameter of the connected 1phase and 3phase AC loads.

- Analog or digital voltage readings with measuring point selector.
- 3x analog or digital voltage current readings (L1, L2 and L3).
- Analog readings: moving iron, class 1,5.
- Digital readings: 3digit LED; TrueRMS; 0,5% +/-1 digit.
- or MFD: multifunctional display with graphic-LCD, four variably programmable readings and four control buttons.
- CEE socket, straight 400V/ 16A, 6h, 5poles.
- 4mm safety jacks (L1, L2, L3, N and PE).
- Integrated type F socket (other optionally).
- Illuminated switch for central on /off.



Measuring Module		33	S 389.	AA 2
S	System	AA	Type	
4	EP	10	Analog (2EP / 2MP)	
7	MP	40	Digital TrueRMS (1,5EP / 2MP)	
		60	MFD, no Interface (1,5EP / 2MP)	
		63	MFD, USB Interface (1,5EP / 2MP)	
		65	MFD, LAN Interface (1,5EP / 2MP)	

Technical Data to Multifunctional Display:

- Display 96 x 96mm with graphic-LCD 128 x 80 pix and 4 control buttons.
- Voltage TRMS (phase -, system - and phase-to-phase voltages); accuracy: $\pm 0,2\%$.
- Phase current TRMS (calculated current of neutral); accuracy: $\pm 0,2\%$.
- Power (active -, reactive -, apparent power each phase and in total), accuracy: $\pm 0,5\%$ of active values.
- Power factor (each phase and in total); accuracy: $\pm 0,5\%$.
- Frequency (frequency measurement of measured voltage); accuracy: $\pm 0,05\%$.
- High - and Low value of the actual measured voltage, current, power, power factor and frequency.
- Total harmonic distortion (THD) of voltages and currents.
- Harmonic analyse of currents and voltages up to 31rd harmonic wave.
- Counter for active -, reactive - and apparent power (part - and total counter with programmed tariff functions).
- Hour counter (total- and service hours, programmable).



DATA LOGGING - A STEP TO MORE DIGITALIZATION

The ongoing digitalization requires the documentation of many industrial processes, so data logging and data evaluation is mandatory. In order to avoid unnecessary cables using up your workspace, we offer a broad variety of interfaces already integrated in the workstation with hidden cable runs.



10

11

12

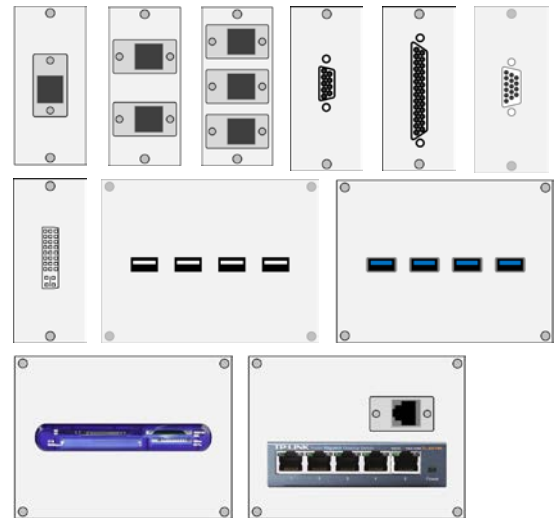
13

KP/EP/MP MODULES WITH INTERFACES

- Modules with interfaces for clearly arranged cable runs.
- Keystone adapters are universal and can be flexibly equipped with Keystone modules.

KP Interface Modules

324.010.002	1x Keystone Adapter, no Module (1KP)
324.020.002	2x Keystone Adapters, no Module (1KP)
324.030.002	3x Keystone Adapters, no Modules (1KP)
324.200.002	1x Sub-D 9poles Plug for COM/RS232 (1KP)
324.210.002	1x Sub-D 25poles Socket for LPT (1KP)
324.220.002	1x Sub-D 15poles Socket for VGA (1KP)
324.230.002	1x DVI-I-Socket, Digital Visual Interface (1KP)
324.400.002	Active 4fold USB-Hub 2.0 incl. Power Supply (3KP)
324.410.002	Active 4fold USB-Hub 3.0 incl Power Supply (3KP)
324.420.002	Active 4fold USB-Hub 3.0 for ENERGY Profile 45° (4KP)
324.500.002	Card Reader USB 2.0 56in1 incl. Power Supply (3KP)
324.802.005	Gigabit Ethernet Switch 5 Port incl. Power Supply (3KP) Cat. 6 Coupler and Patch Cables 15cm

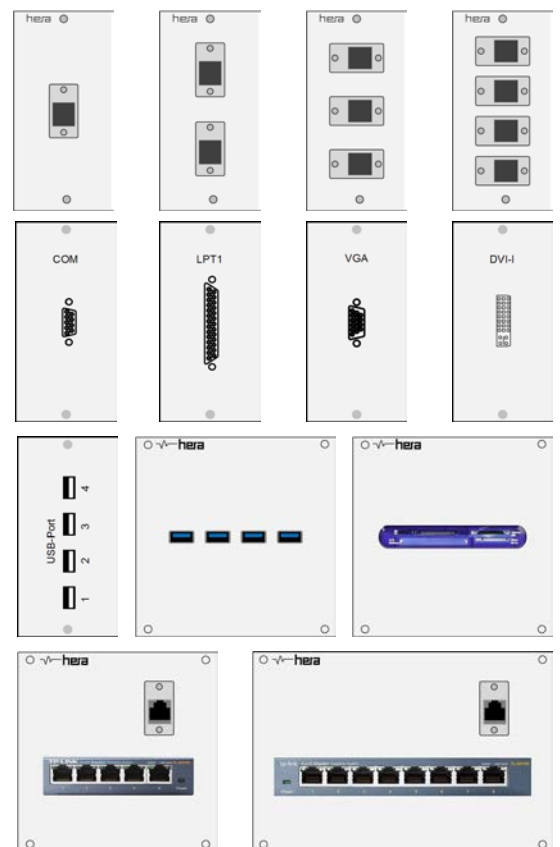


EP/MP Interface Modules

SSS .AAA .AAA

SSS System AAA .AAA Type

333	EP	810.002	1x Keystone Adapter (0,25EP/0,5MP)
336	MP	820.002	2x Keystone Adapter (0,25EP/0,5MP)
		830.002	3x Keystone Adapter (0,25EP/0,5MP)
		840.002	4x Keystone Adapter (0,25EP/0,5MP)
		803.102	1x Sub-D 9poles Plug for RS232 (0,25EP/0,5MP)
		803.302	1x Sub-D 25poles Socket for LPT (0,25EP/0,5MP)
		803.502	1x Sub-D 15poles Socket for VGA (0,25EP/0,5MP)
		803.702	1x DVI-I- Socket (0,25EP/0,5MP)
		805.302	USB-Hub 4fold 2.0 incl. Power Supply (0,25EP/0,5MP)
		805.402	USB-Hub 4fold 2.0, for Energy Channel (0,5EP)
		805.502	USB-Hub 4fold 3.0 incl. Power Supply (0,25EP/0,5MP)
		805.702	Card Reader USB2.0 56in1 (0,5EP/0,5MP)
		802.005	Gigabit Ethernet Switch 5 Port (0,5EP/0,5MP) Cat. 6 Couplers and Patch Cables 15cm
		802.008	Gigabit Ethernet Switch 8 Port (0,75EP/0,5MP) Cat. 6 Couplers and Patch Cables 15cm
330.802.005			Gigabit Network Switch 5-Port, max. 1000 Mbit/s with Power Supply; 100x98x25mm (LxWxH)
330.802.008			Gigabit Network Switch 8-Port, max. 1000 Mbit/s with Power Supply 158x101x25mm (LxWxH)
330.802.016			Gigabit Network Switch 16-Port, max. 1000 Mbit/s with Power Supply 294x180x44mm (LxWxH)
330.802.024			Gigabit Network Switch 24-Port, max. 1000 Mbit/s with Power Supply 280x180x44mm (LxWxH)



KEYSTONE MODULES

- The Keystone system consists of an universal Keystone adapter for snapping-in a Keystone module.
- The Keystone modules can be equipped with cables in different length.
- The Keystone modules can be variably exchanged if other connector is required.

Keystone Modules			
330.800.000	Blank Cover	330.830.500	USB 3.0 C female > male with cable
330.810.100	RJ45 Coupler Cat. 5e	330.830.600	USB Type-A Charging female 1A black
330.810.200	RJ45 Coupler Cat. 6A	330.840.100	HDMI female > HDMI female black
330.810.3F0	RJ45 female > LSA (Insulation displacement) Cat.6 (F=0: black; 1: red; 2: green; 3: yellow; 4: blue)	330.840.300	mini Display Port female > male with cable
330.810.400	RJ45 female > LSA (Insul. displ.) Cat.6 shielded	330.850.100	3,5mm Jack female > female gold-plated
330.820.100	Optical Fibre LC Duplex female > female	330.850.2F0	Cinch female > Cinch female (F=0: yellow; 1: red; 2: white)
330.820.200	Optical Fibre SC Simplex female > female	330.860.100	BNC female > BNC female black
330.830.100	USB 2.0 A-female > B-female	330.860.200	F female > F female (SAT Antenna)
330.830.300	USB 3.0 A-female > B-female	330.860.300	IEC female > F female (SAT Antenna)
		330.860.400	IEC male > F female (SAT Antenna)



KP/EP/MP MODULE WITH ANALOG SOLDERING STATION

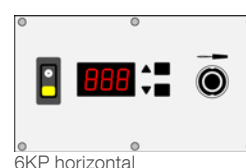
- Professional Weller soldering station 24V/ 80W with electric temperature control.
- Stepless adjustable temperature control via potentiometer between 150°C and 450°C with temperature control LED.
- Antistatic soldering tool WSP80 of Weller.
- Stand with sponge.
- Connector for soldering fume extractor.
- Version for 120V available!

Analog Soldering Station	
327.000.002	4KP (horizontal)
327.000.052	4KP (vertical)
334.152.103	0,5EP
334.252.103	1EP (fits in Energy Channel)
337.152.103	0,5MP



KP/EP/MP MODULE WITH DIGITAL SOLDERING STATION

- Microprocessor controlled Weller soldering station (24V / 80W) with automatic soldering tool identification.
- Stepless adjustable temperature control with up/ down button, adjustable between 50°C and 450°C.
- 3digit LED display for nominal and actual temperature.
- Antistatic soldering tool WSP80 of Weller.
- Stand with sponge.
- Connector for soldering fume extractor.
- Version for 120V available!



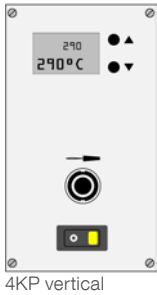
Digital Soldering Station	
327.005.002	4KP horizontal
334.153.103	0,5EP
337.253.103	1MP



KP/EP/MP LCD SOLDERING STATION

Microprocessor controlled ERSA soldering station with stand-by shut-down for saving energy and more durability. Three fixed temperature settings and stepless adjustable temperatures.

- Electrically controlled soldering station, 80W.
- Stepless adjustable temperature between 150 and 450°C.
- LCD display for actual and nominal temperature.
- Antistatic soldering tool according to MIL-SPEC/ESA.
- Powerful fine soldering tool (warm-up 9sec).
- Antistatic stand with dry-cleaner wire mesh.
- Version for 120V available!



4KP vertical



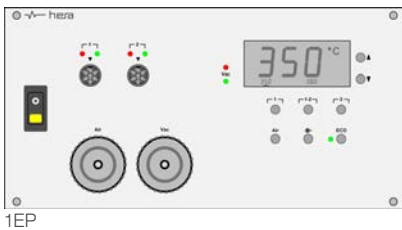
0,5EP

LCD Soldering Station

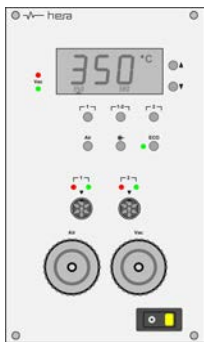
327.020.002	4KP vertical
334.154.103	0,5EP
337.154.103	1MP
960.010.019	5x Soldering Tips (lead-free soldering)

EP/MP UNIVERSAL SOLDERING / DESOLDERING STATION

- Universal repair station for the professional work with electronic moduls.
- The station has two individual tool-specific channels with automatic tool indentification and activation of the respective control parameters. Soldering and desoldering or soldering with hot air is possible at the same time.
- Integrated rotary vane pump for suction or flow (max. vacuum 0,7bar, max. flow quantity 18l/min.).
- Freely programmable buttons for repeating functions.
- LC-display / EGB safe / ECO function.
- Temperature control: 50°C – 550°C.
- For a variety of Weller soldering tools up to 200W.



1EP



1MP



Soldering / Desoldering Station and Accessory	
334.254.102	Soldering / Desoldering Station (1EP)
337.254.102	Soldering / Desoldering Station (1MP)
930.362.900	Soldering / Desoldering Station 120V (1MP)
380.000.100	Soldering Tool Set 80W
380.000.200	Soldering Tool Set 120W
380.000.300	Desoldering Tool Set 80W
380.000.400	Desoldering Tool Set 120W
380.000.500	Hot Air Pencil Set 100W
960.010.003	Set of 5 Soldering Tips (Weller)
960.010.018	Tip for Hot Air Pencil (3mm)
960.010.005	Set of Solder Accessories (500g Solder, 1,6m Solder Wick, Desolde- ring Pump, 100ml Electric Flux, Soldering Tip Cleaner, 5x Sponge for Solder)



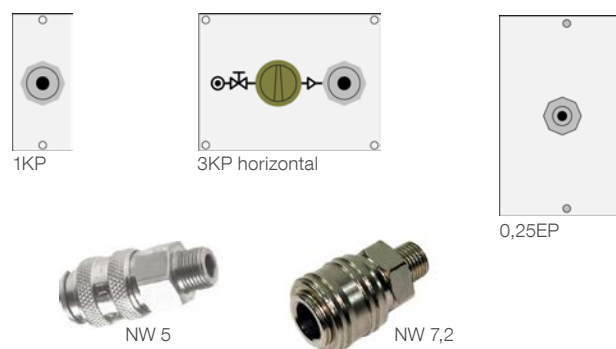
Soldering Tool Set

Desoldering Tool Set

Hot Air Pencil Set

KP/EP/MP PRESSURED AIR CONNECTORS

- Self-closing pressured air connectors.
- Connector with outer G 1/4".
- Safety coupler: the system needs to be vented by turning the releasing sleeve, only then the connector can be opened.
- Option upstream closing valve:
Incl. hosing, for remote controlled pressured air supply, in off-mode closed and vented)

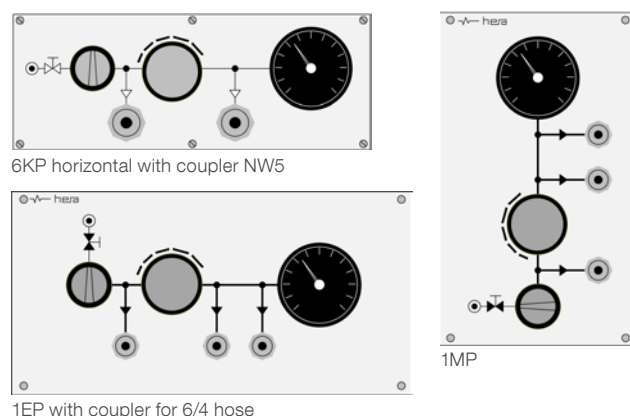


KP Pressured Air Connector	
323.710.002	Hose Coupler 6/4 (1KP)
323.711.002	Hose Coupler 8/6 (1KP)
323.712.002	Quick Release Coupler NW5 (1KP)
323.713.002	Quick Release Coupler NW7,2 (1KP)
323.720.002	with closing valve for hose 6/4 (3KP)
323.721.002	with closing valve for hose 8/6 (3KP)
323.722.002	with closing valve NW5 (3KP)
323.723.002	with closing valve NW7,2 (3KP)

EP / MP Pressured Air Connector	
334.260.102	Hose Coupler 6/4 (0,25EP)
334.260.202	Hose Coupler 8/6 (0,25EP)
334.260.302	Quick Release Coupler NW 5 (0,25EP)
334.260.402	Quick Release Coupler NW 7,2 (0,25EP)
334.260.502	FESTO Safety Coupler NW 7,85 (0,25EP)
334.260.000	Option: Upstream Closing Valve (0,25EP)
930.339.900	Quick Release Coupler NW 7,2 (0,5MP)

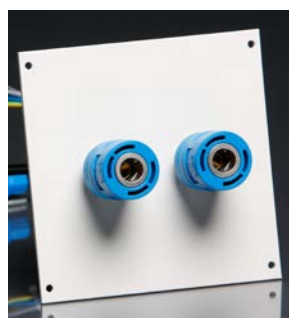
KP/EP/MP PRESSURED AIR CONTROL

- Closing valve.
- Adjustable pressured air control with pressure gauge.
- 6/4- or 8/6- self-closing coupler:
1x uncontrolled outlet + 2x controlled outlet.
- NW5- or NW7- self-closing coupler:
1x uncontrolled outlet + 1x controlled outlet.
- Completely hosed and connecting hose with open end.



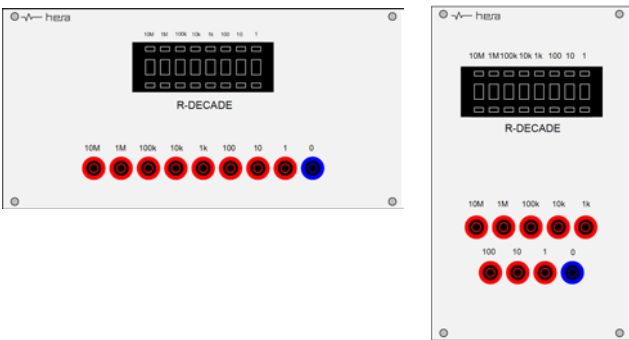
KP Pressured Air Control		323.75	B	A	E	2
B Pressure	A Outlet	E Position				
1 0 - 3 bar (6KP)	0 6/4 Hose Coupler.	0	horizontal			
0 0 - 10bar (6KP)	3 8/6 Hose Coupler.	5	vertical			
	5 NW5 Coupler with 8/6 Hosing					
	7 NW7 Coupler with 8/6 Hosing					

EP/MP Pressured Air Control				33	S	.26	A	B	02
S System		A Outlet		B Position					
4	1EP	2	6/4 Hose Coupler.	1	0 - 3bar				
7	1MP	1	8/6 Hose Coupler.	2	0 - 10bar				
		5	NW5 Coupler with 8/6 Hosing						
		7	NW7 Coupler with 8/6 Hosing						



KP/EP/MP R-DECADE

- 8x decade switches with precision resistors from 1Ω to 10MΩ.
- Accuracy: 0,1% + 100mΩ.
- Max. voltage: 200V AC; max. current: 0,5A.
- 9x 4mm safety jacks to tap the resistances.

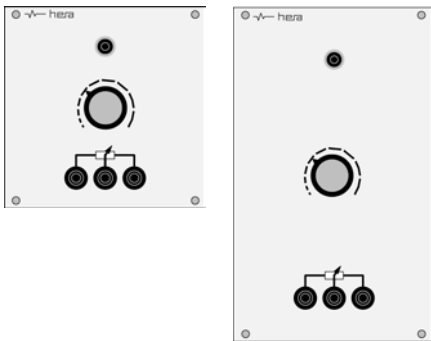


R-Decade	
324.441.102	6KP horizontal
334.441.102	1EP
337.441.102	1MP

KP/EP/MP LOAD RESISTOR

- Stepless adjustable potentiometers 50W.
- Thermal fuse for overload protection.
- 3x 4mm safety jacks to tap the resistance.

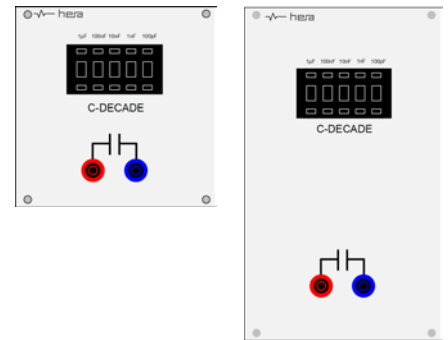
Load Resistor 3 SS.005. A 02	
SS System	A Type
24 3KP	1 0-10Ω / 2,2A
34 0,5EP	2 0-100Ω / 0,7A
37 1MP	3 0-1kΩ / 0,2A
	4 0-10kΩ / 0,1A



KP/EP/MP C-DECADE

- 5x decade switches with precision capacitors 100pF, 1nF, 10nF, 100nF and 1μF.
- Accuracy: 5% + 75pF.
- Max. voltage: 200V AC; max. current: 0,5A.
- 2x 4mm safety jacks to tap the capacities.

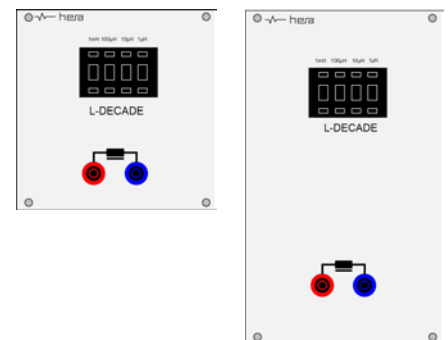
C-Decade	
324.441.202	6KP horizontal (only aluboard)
334.441.202	0,5EP
337.441.202	1MP



KP/EP/MP L-DECADE

- 4x decade switches with precision coils 1μH, 10μH, 100μH and 1mH.
- Max. voltage: 100V.
- 2x 4mm safety jacks to tap the inductance.

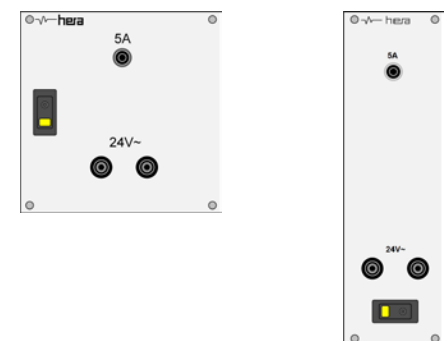
L-Decade	
324.441.302	3KP horizontal
334.441.302	0,5EP
337.441.302	1MP



KP/EP/MP AC LOW VOLTAGE 24V / 5A

- Isolating transformer for the supply of floating 24V AC.
- Output protected by front side operated thermomagnetic fuse.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on/ off.

AC Low Voltage 24V / 5A	
928.065.200	4KP horizontal
928.065.252	4KP vertical
334.220.002	0,5EP
337.220.002	0,5MP



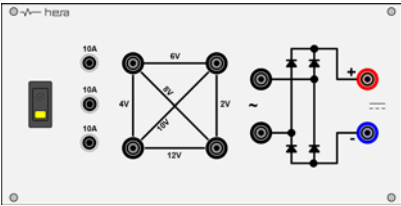
EP/MP AC EXTRA LOW VOLTAGE 1PHASE

- Experimental transformer with four isolated outputs for six floating AC voltages and bridge rectifier for DC voltages.
- Output protected by front side operated thermomagnetic fuses.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on/off.

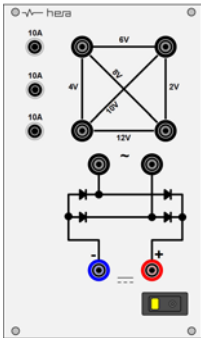
AC Extra Low Voltage 1phase33S.221.A 02

S System	A Type
4 1EP	3 2, 4, 6, 8, 10, 12V / 10A
7 1MP	1 6, 12, 18, 24, 36, 42V / 3A

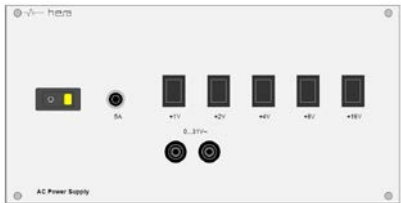
334.221.200 5 Switches for 0...31V/ 5A in 1V steps (1EP)



334.221.302



337.221.302

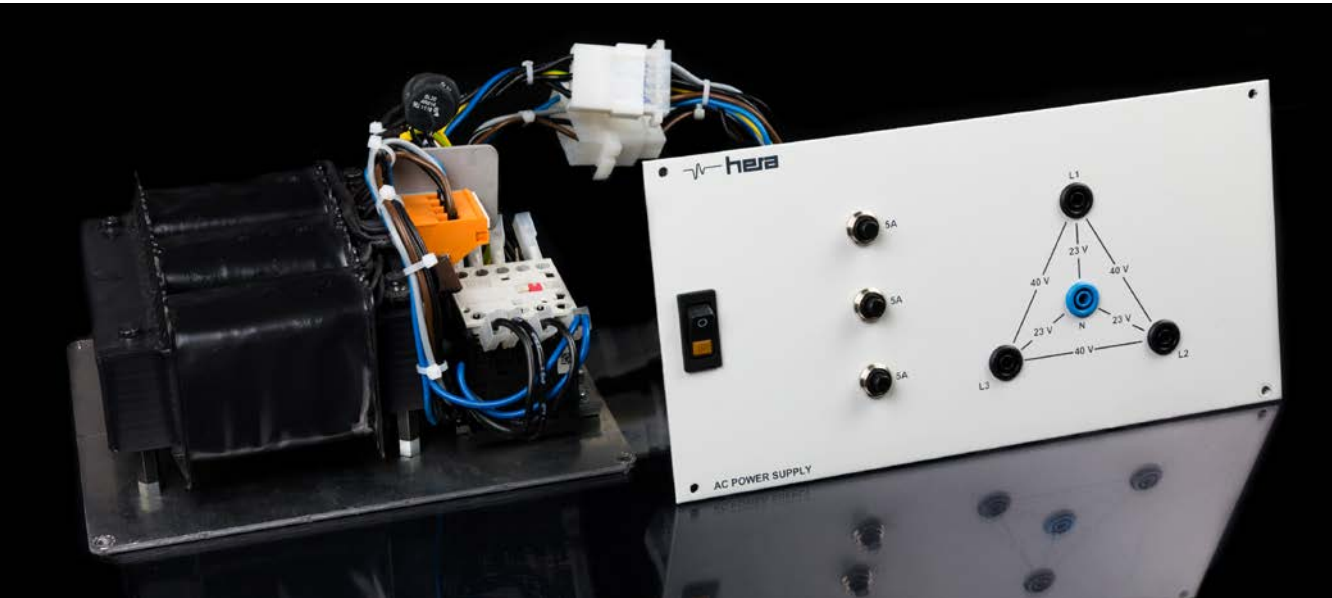
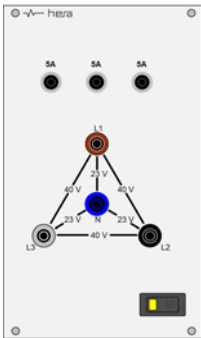
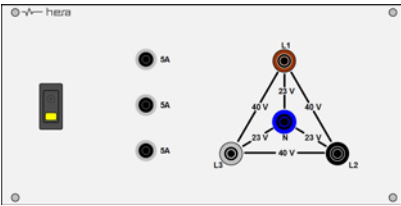


334.221.200 (only AC)

EP/MP AC EXTRA LOW VOLTAGE 3PHASE

- Experimental transformer for isolated 3phase voltage 23V/ 40V.
- Max. phase current: 5A.
- Output protected by front side operated thermomagnetic fuse.
- Output at 4mm safety jacks.
- Illuminated switch with downstream contactor for central on/ off.

AC Extra Low Voltage 3phase	
334.223.002	1EP
337.223.002	1MP



KP/EP/MP MODULE WITH FIXED DC SUPPLY

KP Module with fixed DC Supply 326.1 WW .1 E 2 4KP				
WW Type			E Position	
05	5V / 12A	24	24V / 2,7A	0 horizontal
12	12V / 5,2A	25	24V / 4,2A	5 vertical

EP/MP Module with fixed DC 33 S LLL LLL				
S System	LLL.LLL Type			
3 0,5EP	105.032	5V / 3A	124.012	24V / 1,5A
6 0,5MP	105.052	5V / 5A	124.032	24V / 3,2A
	105.102	5V / 10A	124.062	24V / 6,5A
	112.032	12V / 3A	124.082	24V / 8,4A
	112.062	12V / 6A	148.022	48V / 2,3A
	112.122	12V / 12,5A	148.042	48V / 4,2A

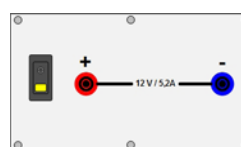
KP Module with fixed DC Supply 326.2 WW .1 E 2 4KP				
WW Type			E Position	
12	+/-12V / 1,0A		0	horizontal
15	+/-15V / 0,8A		5	vertical

EP/MP Module with fixed DC Supply 33 S LLL LLL				
S System	LLL.LLL Type			
3 0,5EP	212.032	+ 12V / 3A + 5V / 6A		
6 0,5MP	224.022	+ 24V / 2A + 5V / 6A		

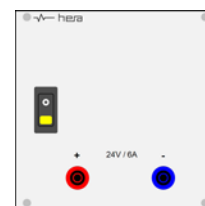
KP Module with fixed DC Supply 326.3 WW .1 E 2 8KP				
WW Type			E Positions	
12	5V / 5A und +/-12V / 1,0A		0	horizontal
15	5V / 5A und +/-15V / 0,8A		5	vertical

EP/MP Module with fixed DC Supply 33 S LLL LLL				
S System	LLL.LLL Type			
3 0,5EP	312.012	+/- 12V / 1A + 5V / 5A		
6 0,5MP	315.012	+/- 15V / 0,8A + 5V / 5A		

- Stabilized and shortcircuit proofed DC power supply, galvanically insulated.
- Overload -, overvoltage - and overtemperature protected.
- Offset: approx. 2%
- Ripple: approx. 120mV p-p.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on /off.



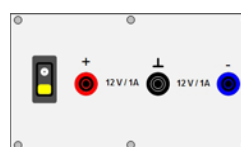
4KP horizontal



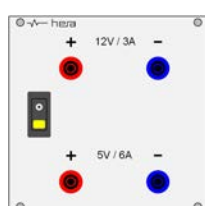
0,5EP



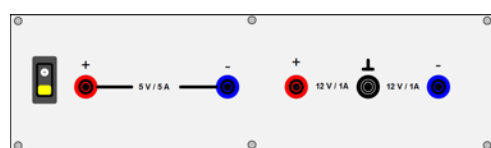
0,5MP



4KP horizontal



0,5EP



8KP horizontal



0,5MP

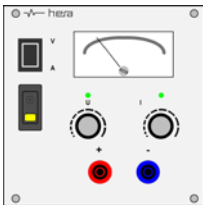


KP/EP/MP REGULATED DC SUPPLY COMPACT 0...30V / 0...2A

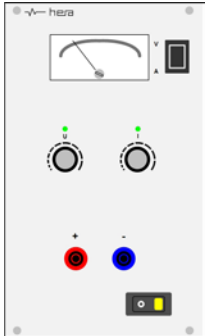
- Linear controlled, earthfree and shortcircuit proofed laboratory power supply.
- Ripple: < 1mV eff.
- Offset: < 0,05%.
- Potentiometer for voltage - and current control and status LED.
- Output on 4mm safety jacks.
- Selector switch for voltage or current reading.
analog: Moving iron class 1,5.
digital: 4digit LED display, accuracy: 0,5% +/- 1digit.
- Illuminated 2poles switch for central on /off.
- With wire harness and couplers.



9KP horizontal



0,5EP



1MP

Regulated DC Supply Compact 0...30V / 0...2A			
326.532.102	analog, horiz. (9KP)	334.810.202	analog (0,5EP)
326.532.502	digital, horiz. (9KP)	334.810.402	digital (0,5EP)
326.532.152	analog, vert. (9KP)	337.810.202	analog (1MP)
326.532.552	digital, vert. (9KP).	337.810.402	digital (1MP)
xxx.xxx.x82	120V Versions		



KP/EP VARIABLE DC SUPPLY 0-35V / 5A

- Programmable control voltage module 250W with 1.44" color OLED display, 4 buttons and rotary knob.
- Coincident voltage - and current indication.
- External function unit (250x120x40mm.)
- Output 0-35V / 0-5A in 10mV / 1mA steps.
- Accuracy: $\pm 0,5\%$ of voltage and current.
- Ripple: < 100mV_{SS}.
- Input: 100 - 264VAC, frequency: 50/60Hz.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on/ off.



5KP horizontal



0,5EP



Variable DC Supply 0-35V / 5A	
326.555.002	5KP horizontal
334.555.002	0,5 EP
337.555.002	1 MP

KP/EP/MP ICOM DIDACTIC SUPPLY WITH PC INTERFACE

- Background illuminated graphic LC-display (60x30mm).
- Operated with buttons and rotary switch.
- Front side USB -, rear side LAN interface.

Lab Power Supply 0 - 30V / 0 - 2A

- Short circuit proofed with ripple $<1\text{mV}_{\text{RMS}}$.
- Output with 4mm safety jacks.
- Technical data, see lab power supply LINEAR 60W.

Fixed DC Voltages $\pm 15\text{V}$ $\pm 12\text{V}$ $\pm 5\text{V}/1\text{A}$

- Selector switch for the voltages and status indication.
- Shortcircuit proofed.
- Output with 4mm safety jacks.

Function Generator 0,05Hz - 200kHz

- Waveforms: sinus, triangle, square, trapezium, saw tooth (rise and fall).
- Amplitude: $0 \dots 30\text{V}_{\text{SS}}$.
- Shortcircuit proofed..
- Output 50Ω at BNC socket + 4mm safety jacks.

3phase Generator 1 - 120Hz:

- $0 - 10\text{V}_{\text{eff}}$ (L-N) / $0 - 17,3\text{V}_{\text{eff}}$ (L-L) / 400mA .
- Shortcircuit proofed.
- Frequency: 1 - 120Hz adjustable in 1Hz steps.
- Output with 4mm safety jacks.

AC Voltages, fix:

- $24\text{V}/0,2\text{A} + 10\text{V}/0,2\text{A}$ (mains frequency).
- Protected by self-resetting fuses.
- Output with 4mm safety jacks.

fixed AC Voltage
 $10\text{V}/24\text{V}$, max. $0,2\text{A}$

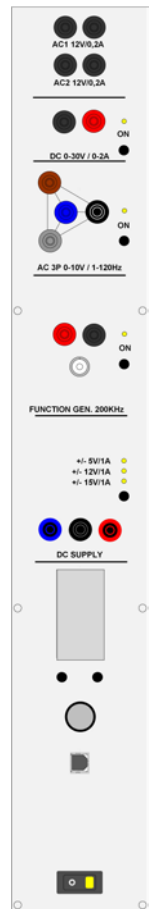
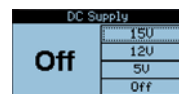
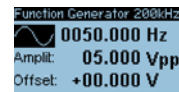
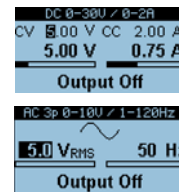
Lab Supply
 $0 - 30\text{V} / 0 - 2\text{A}$

3phase Generator
 $1 - 120\text{Hz}$

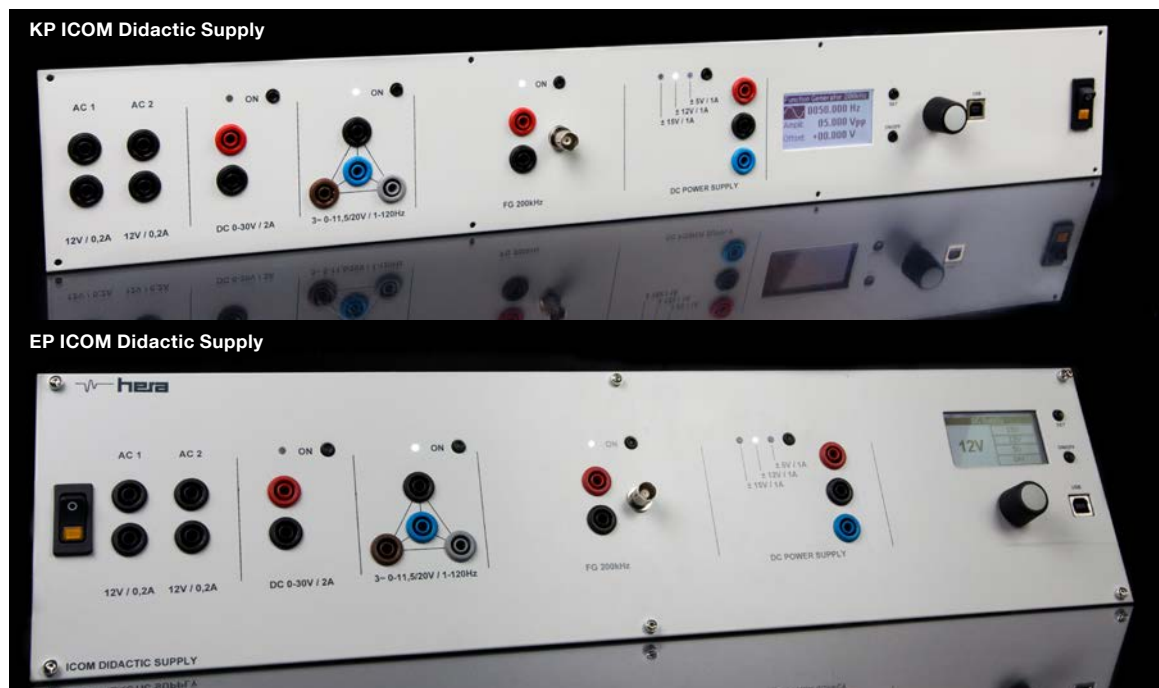
Function Generator
 $0,1\text{Hz} - 200\text{kHz}$

Fixed DC Supply
 $\pm 15\text{V} \pm 12\text{V} \pm 5\text{V}/1\text{A}$

Display and Operation
Panel with USB
Interface



ICOM Didactic Supply	
610.800.301	15KP vertical
620.800.301	15KP horizontal
630.800.301	2EP
650.800.301	3MP



PROGRAMMABLE IMOD DEVICES

The intelligent and modular IMOD devices is a series of programmable lab sources, which can be easily integrated in existing networks and which fully communicates by data bus, thus it is fully in accordance with latest IoT standards. The system consists of a modular choice of:

- the Control-Unit for HMI
- selection of Function-Units
- corresponding Connection-Units with In- and Output Jacks and Sockets

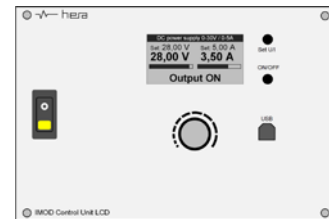
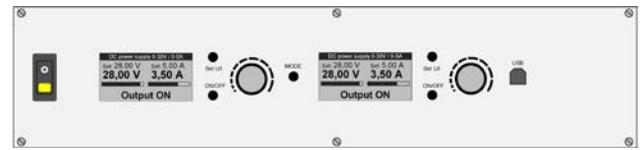
The modular system offers following advantages:

- one Control-Unit TOUCH supporting 5 Function-Units for optimal space saving
- bulky and heavy Function-Units (e.g. variacs) can be placed comfortably under the bench
- Connecting-Units are very small and can even be located in modular equipped ENERGY extensions, which keeps the laboratory cords clearly arranged at the sides of the table
- the Control-Unit can be located in ergonomic reach and view of the operator, which allows to control and to monitor all devices without permanently moving around
- the Control-Unit indicates the actual and nominal values of connected devices at a glance
- integration of more IMOD modules in plug-and-play manner

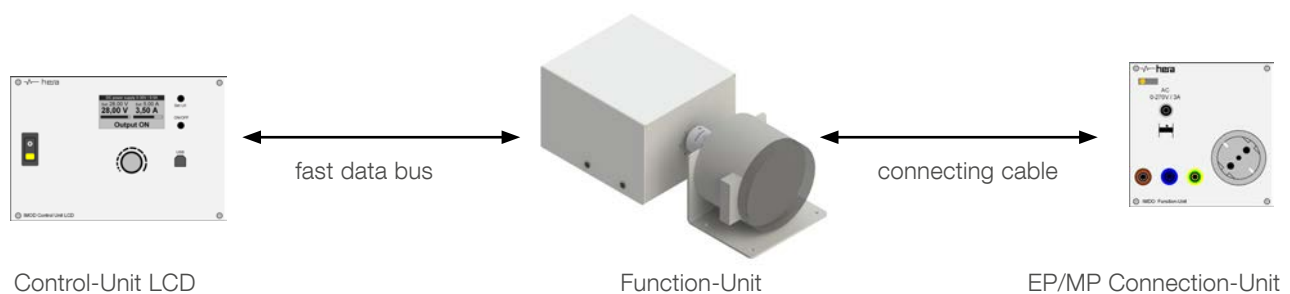
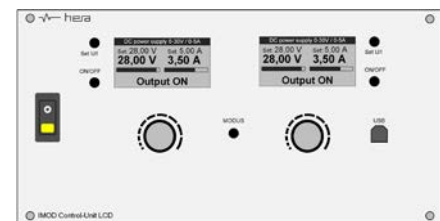


KP/EP/MP IMOD CONTROL-UNIT LCD

- Controller with internal bus for the complete control of a downstream Function-Unit.
- Background illuminated graphic LC-display 60x30mm.
- Rotary switch with pushbutton function for a fast and precise setting.
- Two extra buttons for fast and intuitive operation.
- Incl. front side USB- and rear side LAN interface.
- Illuminated 2poles switch for central on/ off.
- With wire harness and couplers.

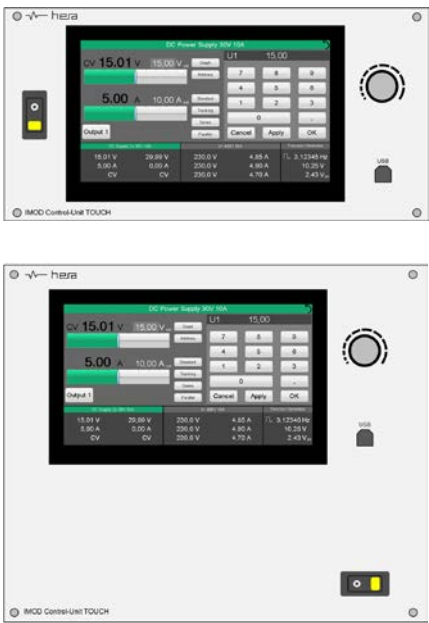


IMOD Control-Unit LCD		6	S	0.000.	A	00
S	System	A	Type			
1	6KP / 10KP vertical	3	1x LC-Display			
2	6KP / 10KP horizontal	5	2x LC-Display			
3	0,75EP / 1EP		(only for double Lab Supplies)			
5	1,5MP / 2MP					



EP/MP IMOD CONTROL-UNIT TOUCH

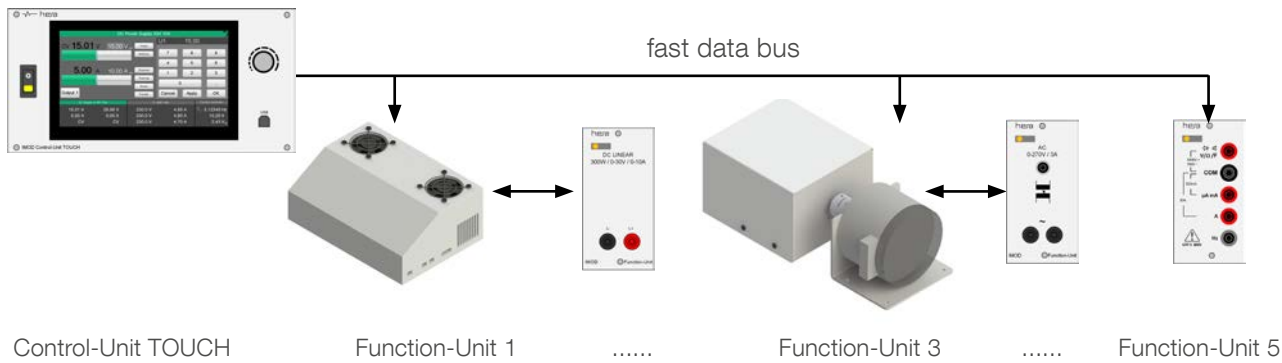
- Controller with internal bus for the central control of max. 5 Function-Units.
- Flush integrated 7" TFT display (800x480) with glass front and wide view angle.
- Highly precise capacitive multitouch screen.
- Rotary switch with pushbutton function for a fast and intuitive control of the most important parameters.
- Settings can be done with touch-slider, touch-keys or rotary switch.
- Value tendency indicated as bargraph, digital in a big numerical display and as graph with data logging function.
- Incl. front side USB - and rear side LAN interface.
- Illuminated 2poles switch for central on/off.
- With wire harness and couplers.



IMOD Control-Unit TOUCH	
630.000.100	IMOD Control-Unit TOUCH 1phase (1EP)
650.000.100	IMOD Control-Unit TOUCH 1phase(2MP)
630.003.100	IMOD Control-Unit TOUCH 3phase (1EP)
650.003.100	IMOD Control-Unit TOUCH 3phase (2MP)
600.001.000	3phase Adapter for IMOD Control-Unit

3phase Adapter for IMOD Control-Unit

- Module with 16A contactor to disconnect all phases incl. N when switching off.
- Required in case of phase distribution or 3phase AC sources.



KP/EP/MP IMOD FUNCTION-UNIT: AC SOURCE 1PHASE

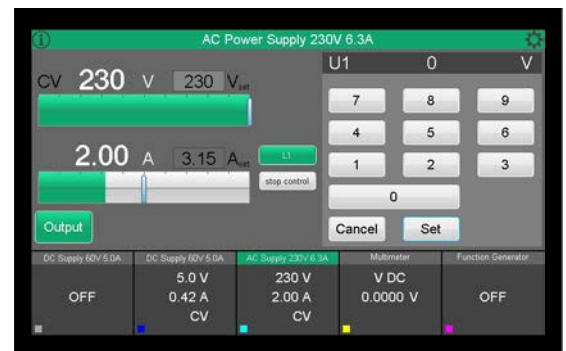
Consisting of KP/EP/MP module for bench rack integration and a completely housed Function-Unit, which can be located with respect to its dimensions in the instrument rack or in an underbench rack.

Connecting-Unit equipped with:

- RGB-LED for status indication.
- Front side operated thermomagnetic output fuse.
- 4mm safety jacks.
- PE-socket or isolated socket for floating voltage.
- 2poles selector switch for floating output.
- Bridge rectifier for a pulsating DC voltage with 48% ripple.

Housed Function-Unit:

- Motor driven variac with isolating transformer (floating type).
- Silent moving actuating motor with intelligent speed control for a minimum of set time and overshoot.
- 2x TrueRMS converter (voltage and current) with 12bit resolution.
- Internal bus for the communication with the Control-Unit.
- Precise voltage - and current settings.
- Set time: max 8s.
- Hysteresis: $\pm U_{\max} / 153$.



IMOD Function-Unit: AC Source 1phase

6 S 2. A LL.LLL

S System A Output

1	KP vertical.	1	AC: Safety Jacks
2	KP horizontal.	2	AC: PE-Socket or Isolated Socket
3	EP	3	AC: Jacks and PE or Isolated
5	MP	4	AC/DC: Jacks and Bridge Rectifier
		5	AC/DC: Jacks, Bridge Rectifier and DC Reading

LL.LLL Type

23.010	0-230V / 1A	03.045	0-30V / 4A floating
23.030	0-230V / 3A	06.035	0-60V / 3A floating
23.060	0-230V / 6A	27.015	0-270V / 1A floating
23.100	0-230V / 10A	27.035	0-270V / 3A floating
23.140	0-230V / 14A	27.055	0-270V / 5A floating
		27.105	0-270V / 10A floating
		27.125	0-270V / 12A floating
		30.105	0-300V / 10A floating
		27.165	0-270V / 16A floating
		30.165	0-300V / 16A floating

Primary L1-L2 3phase supply required!

xxx.xxx.x82

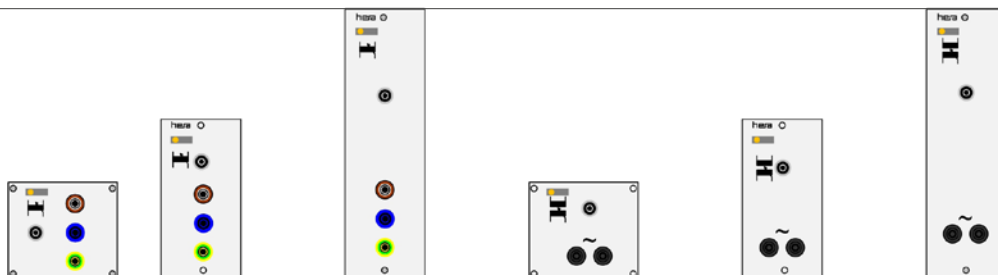
120V Versions

NON Floating

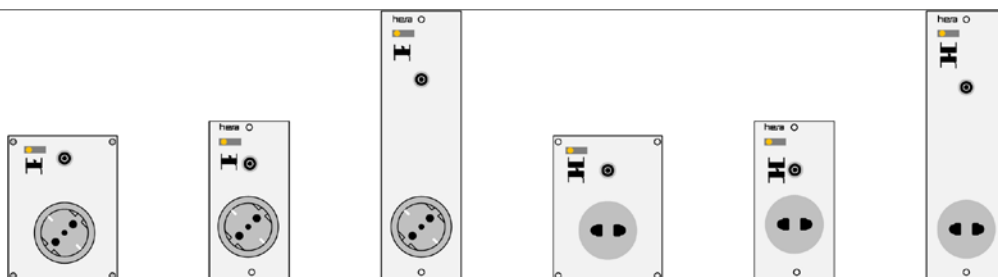
Floating

A Output Type 1:

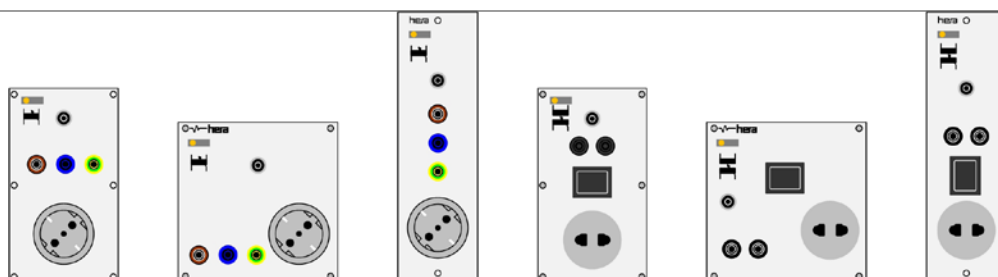
- RGB-LED status indication.
- Front side operated thermomagnetic output fuse.
- 4mm safety jacks.

**A** Output Type 2:

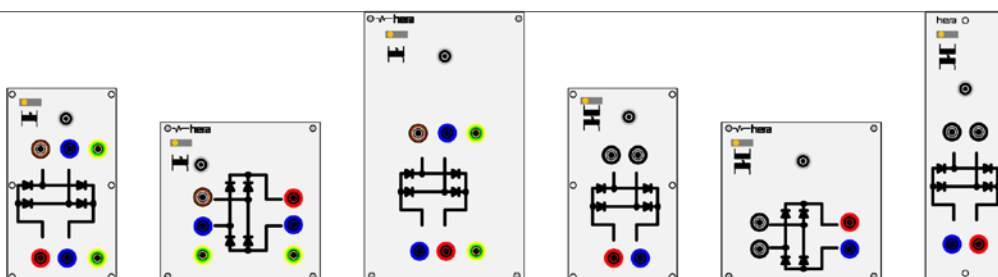
- RGB-LED status indication.
- Front side operated thermomagnetic output fuse.
- PE socket (non-floating), type F or isolated socket (floating). Other socket type on demand!

**A** Output Type 3:

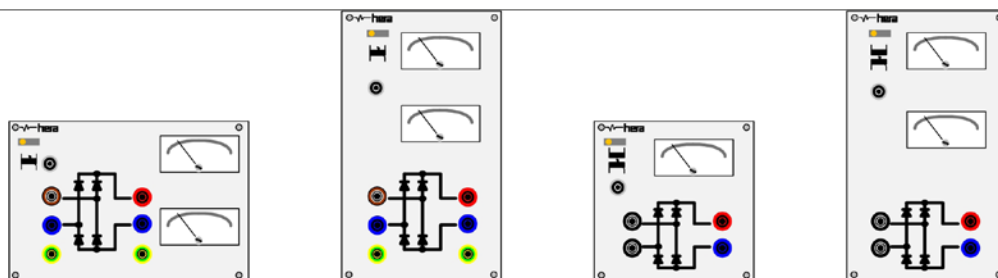
- RGB-LED status indication.
- Front side operated thermomagnetic output fuse.
- Safety jacks.
- PE Socket, type F or isolated socket. Other type on demand!
- 2poles selector switch (floating version).

**A** Output Type 4:

- RGB-LED status indication.
- Front side operated thermomagnetic output fuse.
- Safety jacks.
- DC output with bridge rectifier for a pulsating DC voltage with 48% ripple.

**A** Output Type 5:

- RGB-LED status indication.
- Front side operated thermomagnetic output fuse.
- Safety jacks.
- DC output with bridge rectifier for a pulsating DC voltage with 48% ripple.
- Analogue reading for DC voltage and current (moving iron class 1,5).



KP/EP/MP IMOD FUNCTION-UNIT: AC SOURCE 3PHASE & MEASUREMENT

Consisting of KP/EP/MP module for bench rack integration and a completely housed Function-Unit, which can be located with respect to its dimensions in the instrument rack or under the bench. All Function-Units are with internal bus for communication with the Control-Unit.

Connecting-Unit equipped with (depending on type):

- RGB-LED for status indication.
- Three front side operated thermomagnetic output fuses.
- 4mm safety jacks.
- CEE socket 5poles, red, 400V / 6h.
- 6-point-rectifier for a pulsating DC voltage with 4,3% ripple.
- DC voltage and current reading (moving iron class 1,5).
- 7x 4mm safety jacks arranged as motor terminal (U1, U2, V1, V2, W1, W2 and PE).
- Selector switch for star / delta and rotation field.

Function-Unit AC Source, 3phase:

- Motor-operated 3phase variac with isolating transformer (only floating type).
- Silent moving actuating motor with intelligent speed control for a minimum of set time and overshoot.
- 6x TrueRMS converter (3x voltage and 3x current) with 12bit resolution.
- Precise voltage - and current control.
- Set time: max 8s.
- Hysteresis: $\pm U_{\max} / 153$.

Function-Unit Measuring Unit, 3phase:

- 6x TrueRMS converters (3x voltage / 3x current) with 12bit resolution.



Note: only with Control-Unit TOUCH.

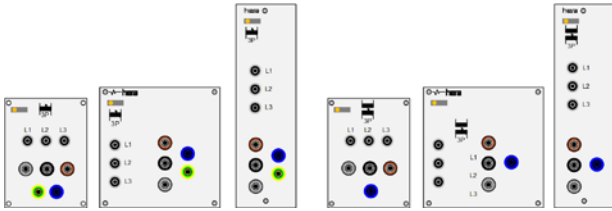


IMOD Function-Unit: AC Source 3phase			6 S 3. A LL.LLL		
S	System	A	Output	LL.LLL	Type
1	KP vertical	1	Safety Jacks	40.010	0-400V / 1A
2	KP horizontal	2	CEE Socket 5poles	40.030	0-400V / 3A
3	EP	3	Jacks and CEE Socket	40.060	0-400V / 6A
5	MP	4	Jacks and Bridge Rectifier	40.100	0-400V / 10A
		5	AC/DC: Jacks and DC Voltage / Current Display	40.140	0-400V / 14A
		6	AC/DC: CEE + Jacks and DC Voltage / Current Display		
		7	Motor Tester: Jacks		
		8	Motor Tester: Jacks and CEE		
				40.015	0-400V / 1A floating
				40.035	0-400V / 3A floating
				45.055	0-450V / 5A floating
				40.105	0-400V / 10A floating
				40.145	0-400V / 14A floating
				52.075	0-520V / 7A floating
				52.105	0-520V / 10A floating

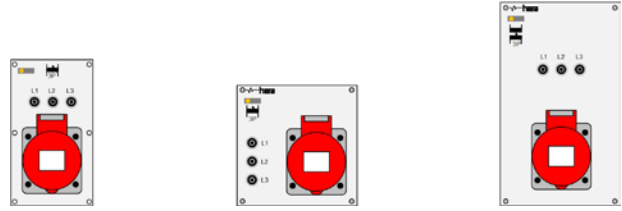
IMOD Function-Unit: Measuring Unit 3phase			6 S 3. A 00.160		
S	System	A	Output	LL.LLL	Type
1	KP vertical	1	AC: Jacks	5	AC/DC: Safety Jacks and DC Voltage / Current Display
2	KP horizontal	2	AC: CEE Socket 5poles	6	AC/DC: CEE + Jacks and DC Voltage / Current Display
3	EP	3	AC: CEE Socket and Jacks	7	Motor Tester: Jacks
5	MP	4	AC/DC: Jacks	8	Motor Tester: Jacks and CEE

A Output Type 1 AC:

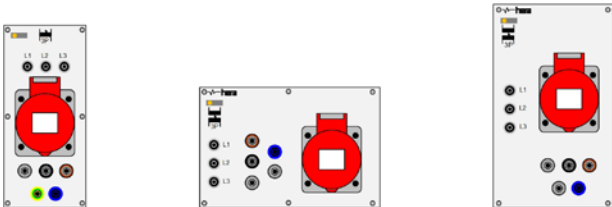
- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- NON floating: 5x safety jacks (L1, L2, L3, N and PE).
- floating: 4x safety jacks (L1, L2, L3 and N).

**A Output Type 2 AC:**

- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- CEE sockets 5poles red 400V / 6h.

**A Output Type 3 AC:**

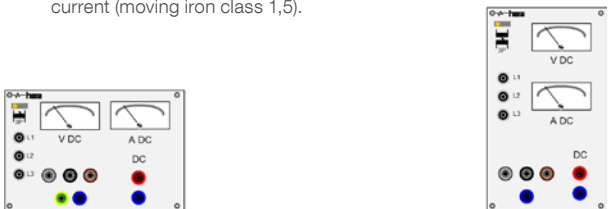
- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- CEE sockets 5poles red 400V / 6h.
- NON floating: 5x safety jacks (L1, L2, L3, N and PE).
- floating: 5x safety jacks (L1, L2, L3, N and equip. bonding).

**A Output Type 4 AC/DC:**

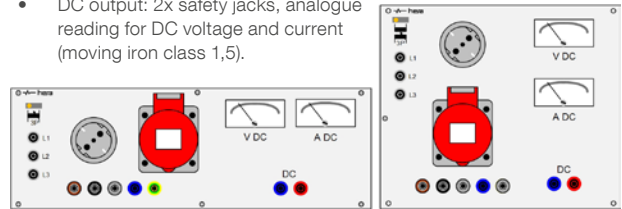
- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- AC outputs: 5x safety jacks (4x floating type).
- 6-point rectifier for pulsating DC voltage (4,3% ripple).
- DC output: 2x safety jacks.

**A Output Type 5 AC/DC:**

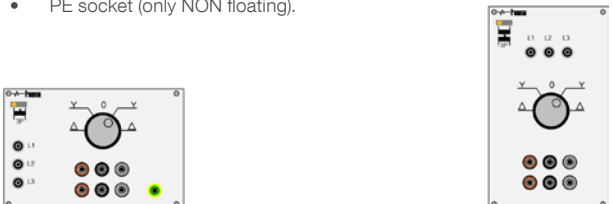
- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- AC outputs: 5x safety jacks (4x floating type).
- 6-point rectifier for pulsating DC voltage (4,3% ripple).
- DC output: 2x safety jacks, analogue reading for DC voltage and current (moving iron class 1,5).

**A Output Type 6 AC/DC:**

- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- AC outputs: 5x safety jacks, PE socket type F (others on demand) and CEE socket,
- 6-point rectifier for a pulsating DC voltage (4,3% ripple).
- DC output: 2x safety jacks, analogue reading for DC voltage and current (moving iron class 1,5).

**A Output Type 7 Motor Tester:**

- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- 6x 4mm safety jacks arranged as motor terminal (U1, U2, V1, V2, W1, W2).
- Selector for star / delta and rotation field.
- PE socket (only NON floating).

**A Output Type 8 Motor Tester:**

- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- 6x 4mm safety jacks arranged as motor terminal (U1, U2, V1, V2, W1, W2).
- Selector for star / delta and rotation field.
- 5x safety jacks.
- CEE socket.



KP/EP/MP IMOD FUNCTION-UNIT: LAB POWER SUPPLY LINEAR

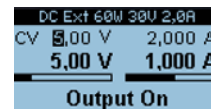
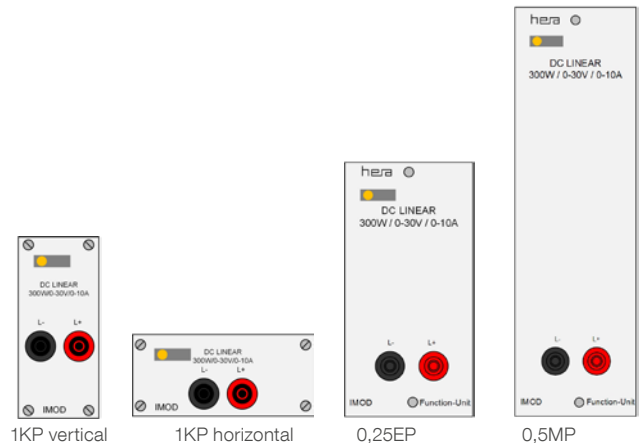
Consisting of KP/EP/MP module for bench rack integration and a completely housed Function-Unit, which can be located with respect to its dimensions in the instrument rack or in an under-bench rack.

Connecting-Unit equipped with:

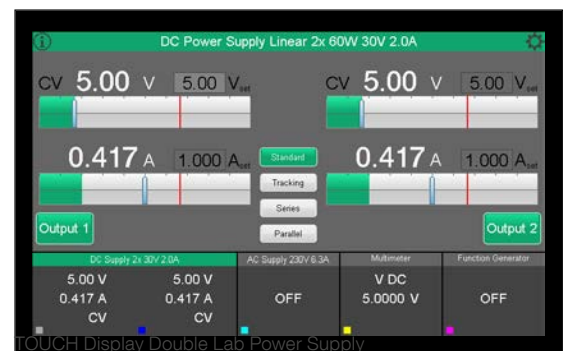
- RGB-LED for status indication.
- 2x 4mm safety jacks.

Housed Function-Unit:

- In-phase controlled lab power supply with transformer switching.
- Silent operating fan with temperature controlled speed for 150W and 300W (60W - fanless).
- Display of measurements: 14 bit (16384 dots).
- Resolution of measurements: 16 bit (65536 dots).
- Ripple (at $I_a = 50\%$): $<0,7\text{mV}_{\text{RMS}}$.
- Set time (load step 10-90% I_a , at 50% U_a): $<120\mu\text{s}$.
- External voltage protection: 100V / 50V (60W).



graphical LCD Display Single



TOUCH Display Double Lab Power Supply



Housed Function-Unit: Lab Power Supply LINEAR 60W

IMOD Function-Unit: Lab Power Supply

6 S 6.10 L.LLL

S System

L.LLL Linear

1	1KP vertical	3.020	60W:	0 - 30V / 0 - 2A
2	1KP horizontal	3.050	150W:	0 - 30V / 0 - 5A
3	0,25EP	3.100	300W:	0 - 30V / 0 - 10A
5	0,5MP	6.050	300W:	0 - 60V / 0 - 5A

KP/EP/MP IMOD FUNCTION-UNIT: LAB POWER SUPPLY EXTENDED RANGE

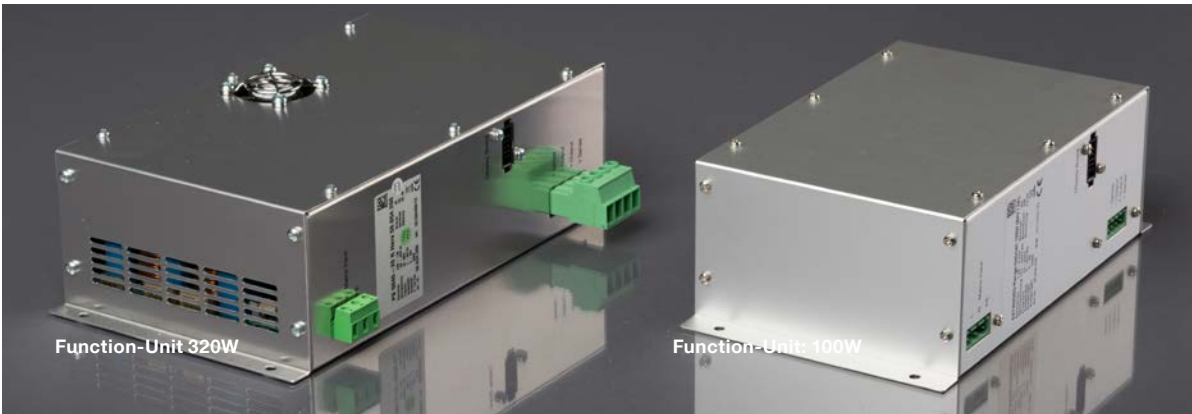
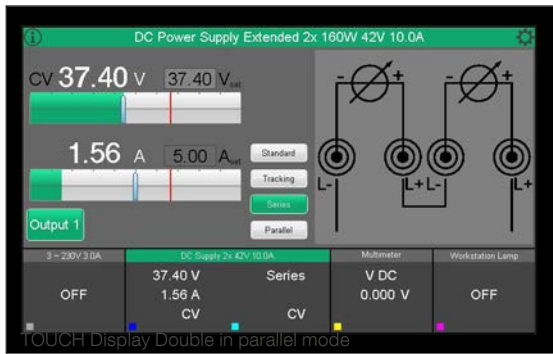
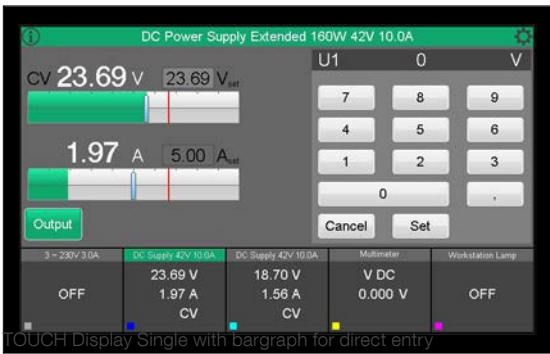
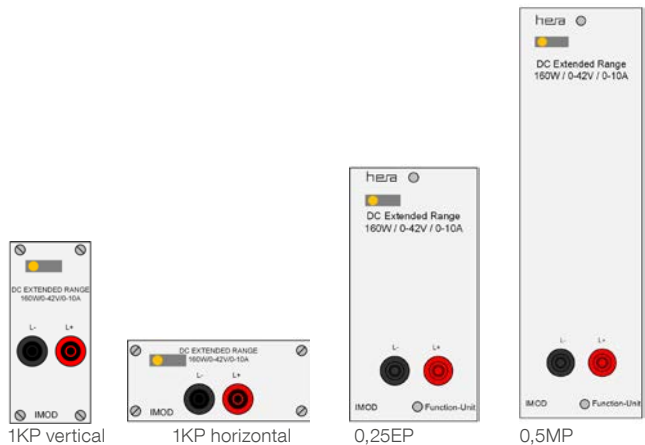
Consisting of KP/EP/MP module for bench rack integration and a completely housed Function-Unit, which can be located with respect its dimensions in the instrument rack or in an underbench rack.

Connecting-Unit equipped with:

- RGB-LED for status indication.
- 2x 4mm safety jacks.

Housed Function-Unit:

- Lab power supply, fanless up to 160W.
- Stability at 0-100% load: <0,8%.
- Stability at 10% mains alternation: <0,02%.
- Ripple: <5mV_{RMS}.
- Set time 10-100% load: <1ms.
- Overvoltage protection: 0...46,2V.
- Accuracy: < 0,2%.
- Nominal values of current and voltage adjust one another so the max. power is not exceeded.



IMOD Function-Unit: Lab Power Supply Extended Range 6 S 5.10 LLL 0					
S System		L.LL	Type		
1	1KP vertical	4.06	100W: 0-42V / 0-6A	8.03	100W: 0-84V / 0-3A
2	1KP horizontal	4.10	160W: 0-42V / 0-10A	8.05	160W: 0-84V / 0-5A
3	0,25EP	4.20	320W: 0-40V / 0-20A		
5	0,5MP				

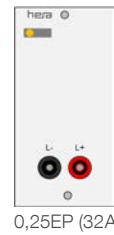
KP/EP/MP IMOD FUNCTION-UNIT: INTERFACE CONNECTION FOR HIGH PERFORMANCE POWER SUPPLY

The system consists of the KP/ EP / MP Connecting-Unit for bench rack integration with interface to a high performance power supply.

The IMOD interface with Connecting-Unit allows to locate the high performance power supply conveniently under the table for keeping the instrument rack quite small. The power supply can be fully controlled at the Control-Unit or software.

Connecting-Unit equipped with:

- Rear sided LAN connection.
- RGB-LED for status indication.
- **max 32A:** 2x 4mm safety jacks wired to power supply max. 32A.
- **max. 80A:** 2x 6/4mm safety jacks + 2x 4mm sense safety jacks wired to the power supply max. 80A.
- **max. 125A:** 2x 6mm safety jacks + 2x 4mm sense safety jacks wired to power supply.



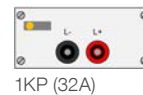
0,25EP (32A)



0,5EP (80A)



0,5MP (125A)



1KP (32A)



3KP (80A)



6/4 Safety Jack
(for 6mm high current
plugs and 4mm lab plugs)

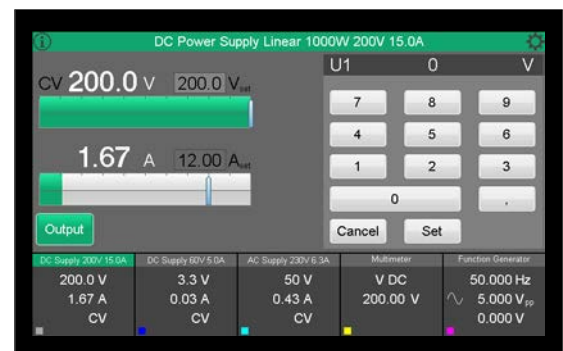


6mm Safety Jack
(for 6mm high current
plug)



299.540.000
2x 6mm plug red /
black)

IMOD Function-Unit: Interface Connection 6 S 5.200. A 00	
S System	A Current
1 1KP (3KP) vertical	5 4mm jacks (max. 32A)
2 1KP (3KP) horizontal	6 6/4mm jacks (max. 80A)
3 0,25EP (0,5EP)	7 6mm jacks (max. 125A)
5 0,5MP (0,5MP)	



19" HIGH PERFORMANCE POWER SUPPLY 2HE

- 19" microcontroller controlled power supply.
- Power controlled output stage (nominal values of voltage and current adjust one another, so the max. power is not exceeded).
- Color TFT display.
- Rear sided USB - and LAN Connection.
- Dimensions: 483 x 89 x 470mm (WxHxD).
- See chapter 11 for technical details.



Power Supply	1000W
365.100.040	0 - 40V / 0 - 40A
365.100.080	0 - 80V / 0 - 40A
365.100.200	0 - 200V / 0 - 15A
365.100.360	0 - 360V / 0 - 10A
365.100.500	0 - 500V / 0 - 6A

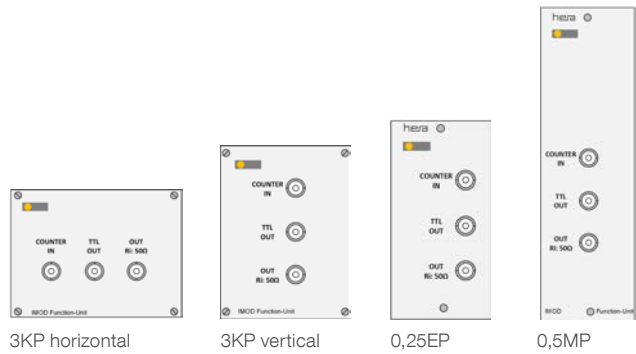
Power Supply	1500W
365.150.040	0 - 40V / 0 - 60A
365.150.080	0 - 80V / 0 - 60A
365.150.200	0 - 200V / 0 - 25A
365.150.360	0 - 360V / 0 - 15A
365.150.500	0 - 500V / 0 - 10A

Power Supply	3000W
365.300.040	0 - 40V / 0 - 120A
365.300.080	0 - 80V / 0 - 120A
365.300.200	0 - 200V / 0 - 50A
365.300.360	0 - 360V / 0 - 30A
365.300.500	0 - 500V / 0 - 20A

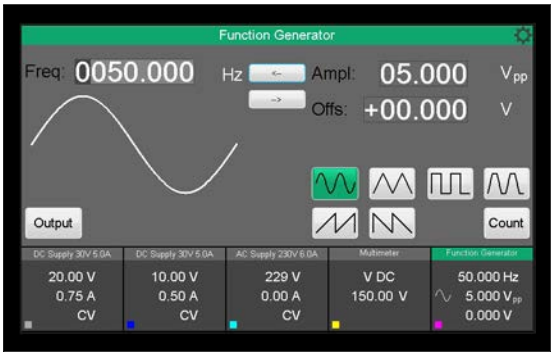
KP/EP/MP IMOD FUNCTION-UNIT: **FUNCTION GENERATOR**

Connecting-Unit with housed Function-Unit:

- RGB-LED for status indication.
- 3x BNC sockets
(COUNTER IN, TTL OUT and OUT Ri: 50Ω).
- Basic functions: sinus, triangle, square , saw tooth, pulse, trapezium.
- Frequency range: 50mHz – 10MHz (sinus), 50mHz – 1MHz (other signals).
- Arbitrary functions according to value table (comfortable handling by IMODdesktop).
- Other functions: PWM, TTL-output.
- Amplitude: 30V_{SS} (max. 1MHz), up to 3V_{SS} at 10MHz.
- Resolution: 12bit.
- Duty cycle: 0,1% ... 99,9%.
- DC Offset: ± 7,5V.
- Frequency measurement: max. 50MHz.



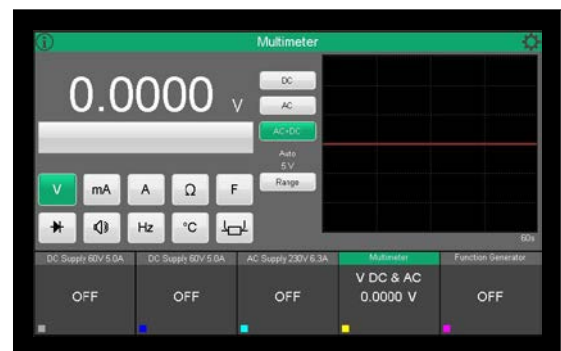
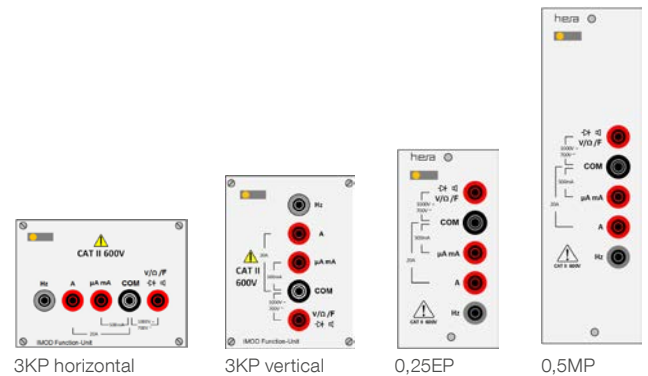
IMOD Function-Unit: Function Generator	
617.000.000	3KP (vertical).
627.000.000	3KP (horizontal).
637.000.000	0,25EP
657.000.000	0,5MP



KP/EP/MP IMOD FUNCTION-UNIT: MULTIMETER

Connecting-Unit with housed Function-Unit:

- RGB-LED for status indication.
- 5x 4mm safety jacks (Hz, A, $\mu\text{A}/\text{mA}$, COM, V/ Ω /F/diode/continuity/temperature).
- Resolution: 4 3/4 digit (50.000 counts).
- Voltage DC: 10 μV – 1000V.
- Voltage AC TrueRMS: 10 μV – 700V.
- Current DC: 10nA – 20A .
- Current AC TrueRMS: 10nA – 20A.
- Protection of current inputs.
- Resistance: max. 50M Ω .
- Frequency: 100 μHz – 50MHz.
- Capacity: max. 5mF.
- Other functions: diode tests, continuity test, temperature measurement and high current measurement via shunt.
- Manual or autoranging.
- CAT II 600V.



IMOD Function-Unit: Multimeter	
614.000.000	3KP vertical.
624.000.000	3KP horizontal.
634.000.000	0,25EP
654.000.000	0,5MP
604.000.100	Immersion Temperature Sensor
604.000.200	Surface Temperature Sensor
604.000.300	Kapton Tape Temperature Sensor



604.000.100:

Immersion Temperature Sensor -70 ... +250°C

- Water resistant immersion sensor 3mm diameter
- Silicon handle and highly flexible silicon cable
- Pt1000 class B
- 1m cable with 4mm lab plug



604.000.200:

Surface Temperature Sensor -190 ... +260°C

- Surface sensor with fixation hole
- Pt1000 class A
- Stainless steel sleeve 40mm, hole 4,5mm
- 2m cable with 4mm lab plug



604.000.300:

Kapton Tape Temperature Sensor -190 ... +260°C

- fast reacting contact sensor. As the sensor is integrated in transparent kapton foil, it is perfectly suitable for different surfaces and e.g. underlaying positions.
- Pt100 class B kapton tape sensor
- Thickness approx. 1,4mm
- 2m cable with 4mm lab plug

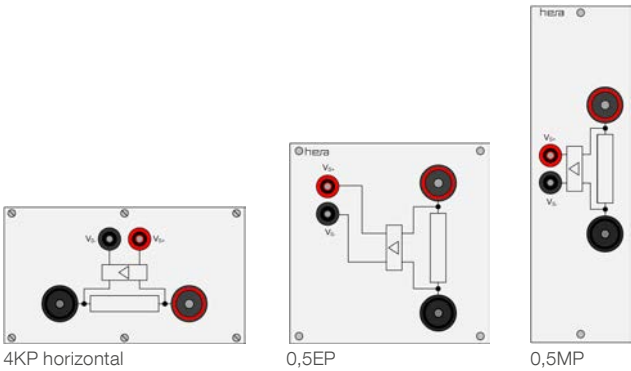


KP/EP/MP IMOD FUNCTION-UNIT: HIGH CURRENT MEASUREMENT

The Function-Unit for high-current measurement is an addition to the IMOD Function-Unit Multimeter. The module holds a high-current shunt with amplifier. The IMOD Control-Unit automatically calculates and indicates the measured current basing on the preset divider value.

Connecting-Unit equipped with:

- Housed and isolated high current shunt with 2x 6/4mm high current safety jacks.
- Measuring amplifier with output on 4mm safety jacks for connection to the voltage input of the IMOD multimeter.
- Accuracy of shunt: class 0,5.



IMOD Funct.-Unit: High Current Measurement 6 S 4.10 M.M 00			
S	System	M.M	Type
1	4KP vertical	0.5	max. 50A with 6/4mm sockets
2	4KP horizontal	1.0	max. 100A with 6mm sockets
3	0,5EP		
5	0,5MP		



SET OF IMOD MEASURING CABLES

Multimeter:

- 2x Safety Test Leads, 100cm
- 2x Test Probes

Lab Power Supply:

- 2x Safety Test Leads, 150cm
- 2x Safety Test Leads, 25cm
- 2x Crocodile Clips

AC Source:

- 5x Safety Test Leads, 100cm
- 4x Crocodile Clips

Function Generator:

- 1x BNC Cables, 100cm
- 1x Adapter BNC - 4mm Lab Jack
- 1x USB Cable



KP/EP/MP IMOD FUNCTION-UNIT: DIDACTIC SUPPLY

Consisting of a KP/EP/MP Connecting-Unit and a individually housed functional unit:

Fixed DC Voltages $\pm 15V$ $\pm 12V$ $\pm 5V/1A$

- Selector switch for the voltages and status indication.
- Shortcircuit proofed.
- Output with 4mm safety jacks.

Function Generator 0,05Hz - 200kHz

- Waveforms: sinus, triangle, square, trapezium, saw tooth (rise and fall).
- Amplitude: 0...30V_{SS}.
- Shortcircuit proofed..
- Output 50 Ω at BNC socket + 4mm safety jacks.

3phase Generator 1 - 120Hz:

- 0 – 10V_{eff} (L-N) / 0 - 17,3V_{eff} (L-L) / 400mA.
- Shortcircuit proofed.
- Frequency: 1 - 120Hz adjustable in 1Hz steps.
- Output with 4mm safety jacks.

3phase Generator
1 - 120 Hz

Function Generator
0,1 Hz - 200 kHz

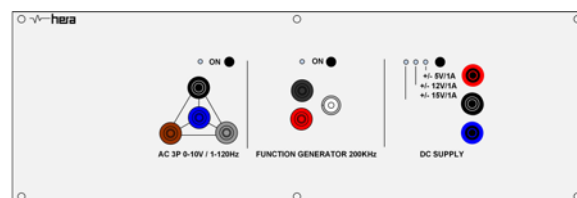
Fixed DC Voltage
 $\pm 15V$ $\pm 12V$ $\pm 5V/1A$



8KP vertical

IMOD Function-Unit: Didactic Supply

610.800.000	8KP vertical
620.800.000	8KP horizontal
630.800.000	1,5EP
650.800.000	3MP



1,5EP



3phase Generator 1 - 120 Hz and Fixed DC Supply $\pm 15V$ $\pm 12V$ $\pm 5V/1A$



Function Generator 0,1 Hz - 200 kHz

IMOD FUNCTION-UNIT: PROFI LED WORKSTATION LAMP

IMOD integration for LED Workstation Lamp ST and PR with following functions:

- On / Off.
- Dimming: 0 - 100%.
- Color temperature: 2700 - 5500K (only PR).
- Status memory.



see catalogue chapter 3 for article Nos.



INNOVATIVE & NETWORK-OPERATED ROOM CONCEPT

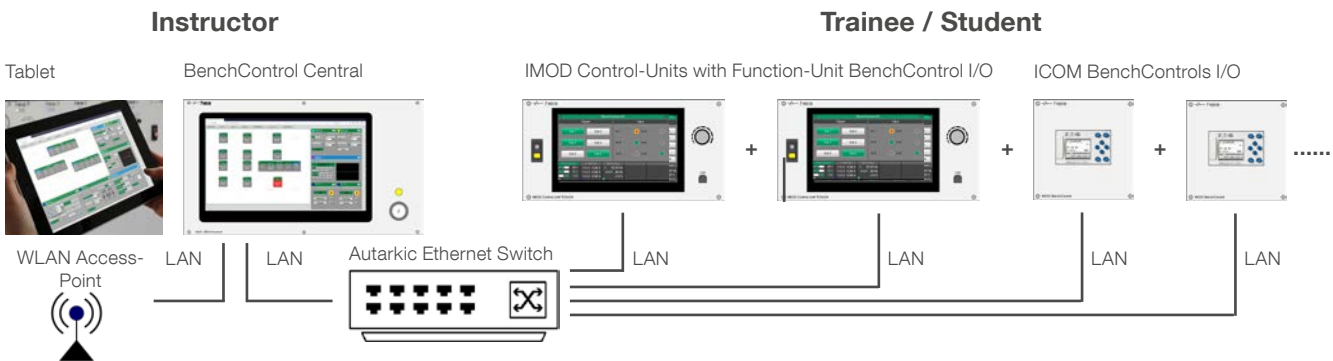
Innovative and flexible classroom concept, where all trainee benches are integrated in an ethernet networks and thus can be completely observed and operated centrally via hera BenchControl Central.

The BenchControl Concept includes:

- Instructor Bench: IMOD BenchControl Central as central control unit.
- Trainee Benches: ICOM BenchControl I/O or/and IMOD BenchControl I/O.
- Remote Software: IMODdesktop as browserclient networks-operated software.

Benefits of the BenchControl Concept:

- Self sufficient (no PC required) central control for highest reliability.
- Economical, modular and flexible networks topology.
- Network-operated webserver solution for OS-independent utilization.
- Use of extra tablets for controlling the room is possible.



EP/MP MODULE IMOD BENCHCONTROL CENTRAL

Self-sufficient (no PC required!) central control for remote operation and observation of all connected IMOD BenchControls I/O or ICOM BenchControls I/O.

- Powerful and fanless single-board computer with high resolution HDMI interface and fast LAN interface.
- EP Module: flush integrated 4,3" TFT display (800x480) with glass front and wide view angle.
- MP Module: flush integrated 11,6" TFT display (1920x1080) with glass front and wide view angle.
- High precision capacitive multitouch operation.
- Webbrowser basing control software, either for the compact display of all switching modes (IMODmobile) or with individually designed desktop presentation (IMODdesktop).
- Key-switch for central on / off and indicator lamp.

IMOD BenchControl Central	
630.100.100	4,3" TFT display (0,75EP)
650.100.100	11,6" TFT display (3MP)



IMOD FUNCTION-UNIT: **BENCHCONTROL I/O**

Integrated I/O module for the operation and observation of the complete workstation with following functions:

- 6x freely editable relay outputs for various applications:
 - Activation in steps (low -/ mains voltage)
 - Up and down for retractable instrument racks
 - Activation of soldering station and soldering fume extraction
 - Activation and control for selective poles (e.g. voltage provision from instructor bench)
 - Activation of electric lock for container.
- 5x freely editable digital inputs for various applications:
 - Status report for emergency stop
 - Key - or RFID activation
 - Status query for contactors and position switches.
- The outputs are connected to the IMOD Function-Units (DC power supplies, AC sources, ...) for enabling and limit settings via BenchControl I/O.



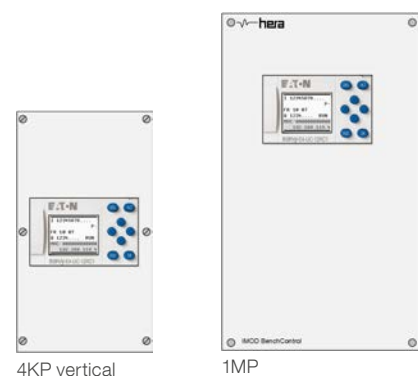
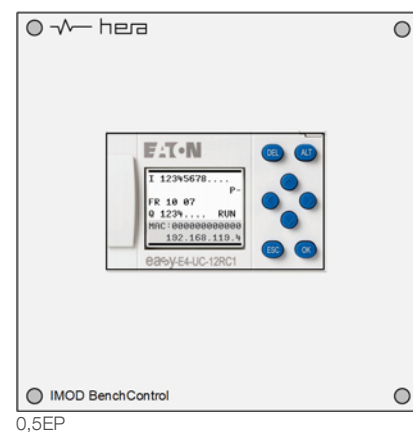
IMOD Function-Unit: BenchControl I/O

601.000.000

KP/EP/MP **ICOM BENCHCONTROL I/O**

In trainee benches integrated compact controller, which is connected by LAN to a BenchControl Central and allows to switch the connected outputs.

- 4x relay outputs, flexibly assigned e.g. for activation in levels (low - / mains voltage), up / down of retractable instrument racks, on / off for soldering fume extraction or soldering station, etc.
- 8x digital inputs, flexibly assigned e.g. for key - or RFID activation, emergency stop status report.
- LCD with color changing options (white, green, red). Text messages for operating modes, addresses, function keys.
- Timer for time-controlled switching off.
- 4x programmable buttons (can be completely deactivated).
- Ethernet-Interface for the Connection to BenchControl Central.



ICOM BenchControl I/O

621.100.000	ICOM BenchControl I/O (4KP) vertical
631.100.000	ICOM BenchControl I/O (0,5EP)
651.100.000	ICOM BenchControl I/O (1MP)

IMODdesktop

Software for IMOD Device Series

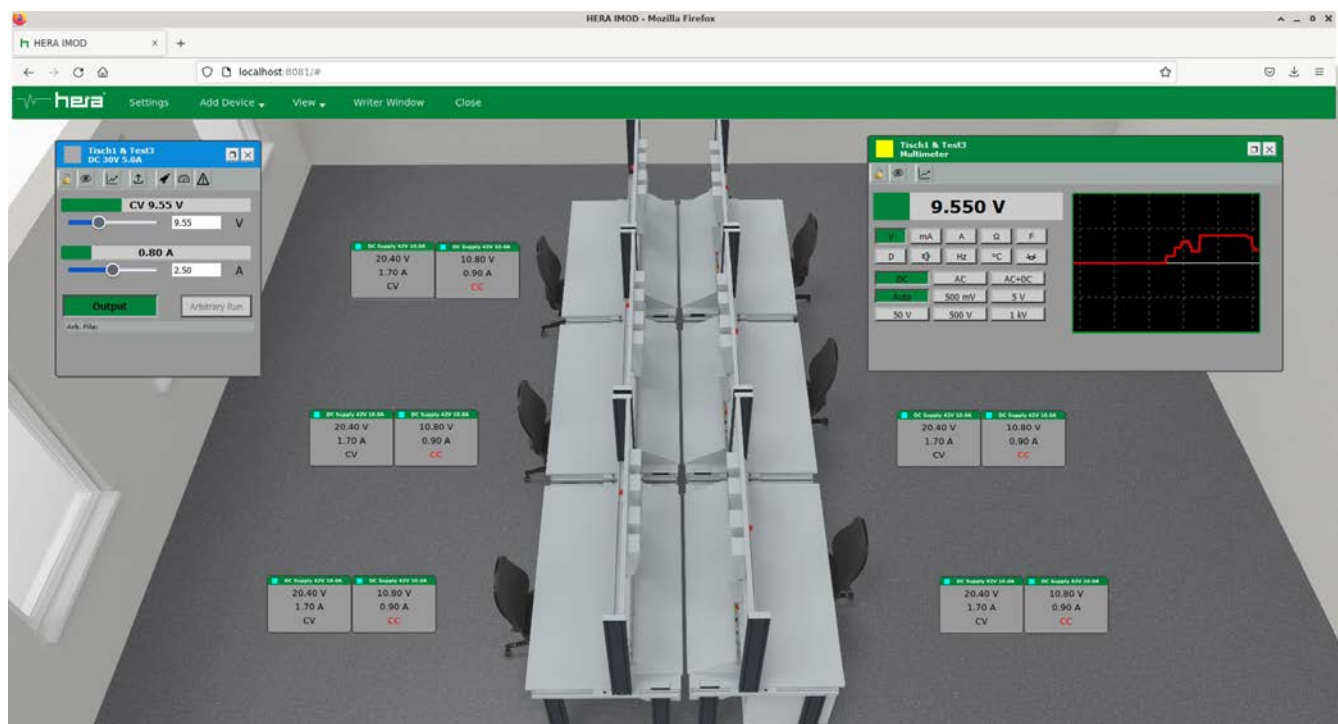
- Applicable as web server solution for the complete class-room or as single license for individual benches.
- Browser client software for OS-independency, thus the software can be used on all devices (PC, notebook, tablet and smart phone).
- Graphical user interface in the same design and operating concept as IMOD Control-Unit TOUCH.
- Dimensions and background freely designable e.g. with classroom plan.
- Easy and intuitive handling (self-explaining).
- Variable arrangement of more IMOD Control-Units as graphical user interface, this allows a clear or even personalized presentation (e.g. student names).
- Grouping of more Function-Units.
- Memory for various arrangements.
- Personalized password protection with individual profiles.
- Comfortable installation software.



Tablet with IMODdesktop



IMODdesktop via LAN networks or directly via USB



Room Control Software IMODdesktop

Available Function-Units:

- BenchControl I/O.
- Variable AC Sources 1- and 3phase and measurement.
- Laboratory Power Supplies, single and double.
- LAN-Connection for High Performance DC Supplies.
- Multimeter (optional high current measurement).
- Function Generator.
- LED Workstation Lamp.

Dialogue Functions:

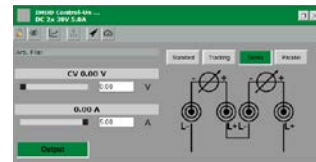
- Display of nominal values in digital numbers and analog bargraph.
- Value setting via slider or keypad.
- Switchable modes and outputs.
- Value setting for start and limit.
- Selection between four activation modes.
- Recording function for all actual values.
- Arbitrary generator for nominal value setting (matrix).

Recorder Function:

- Simultaneous measurement and presentation of more Function-Units, so they can be evaluated within the same time stamp.
- Settings for measured value calculation (min., max., average and last value).
- Selectable time base for long-term measurements.
- Data logging and further-processing as CSV table.

Activation Modes:

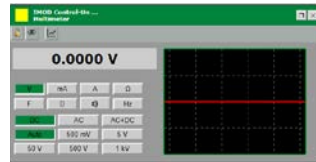
- All control features of the IMOD Control-Unit and software IMODdesktop and IMODmobile.
- Value setting with IMODdesktop. The IMOD Control-Unit can be operated within the preset limit (current and voltage for AC - and DC sources).
- Deactivation of control functions by IMODdesktop. The Control-Unit only serves as display but settings are not enabled.
- Blinding-out the display with IMODdesktop. The display of the Control-Unit is blinded-out and the Control-Unit cannot be operated.



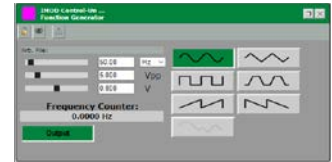
User Interface Double Lab Power Supply



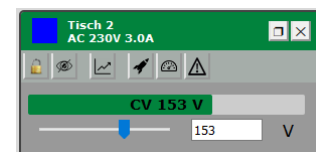
User Interface AC Source 3phase



User Interface Multimeter

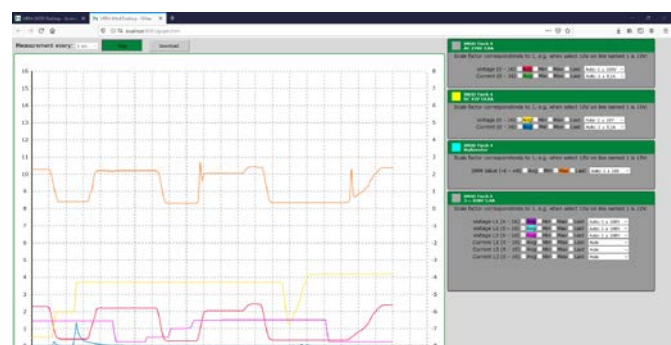
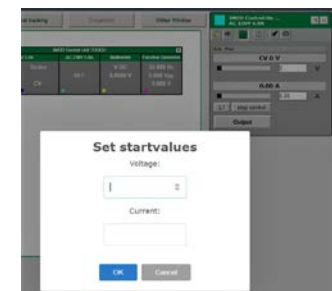


User Interface Function Generator

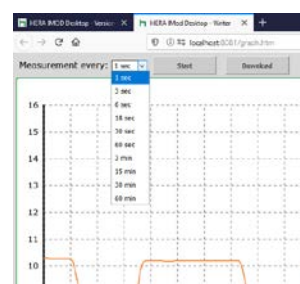
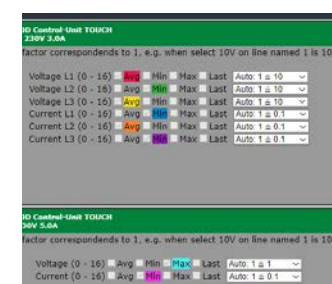


Function-Unit Buttons:

- control deactivated
- reading blinded-out
- recorder activated
- load arbitrary generator
- set start values
- set limit values
- set warning values



Multichannel Chart Recorder

Recorder Time Base:
adjustable time base and download of CSV tableRecorder Measuring Values:
adjustable color and calculating mode for each measuring range.

Software IMODdesktop and IMODmobile

600.000.100	Single License	(for max. 2 Control-Units)
600.000.200	Classroom License	(for n Control-Units)

FIRST-CLASS LAB POWER SUPPLIES FOR VARIOUS APPLICATIONS

hera Lab Power Supplies are characterized by:

- Intuitive control via potentiometer and buttons
- Background-illuminated graphic display indicates all relevant values at a glance
- USB- and LAN-Interface for remote operation
- Incl. operating software with arbitrary function, operation lock and programmable overvoltage protection

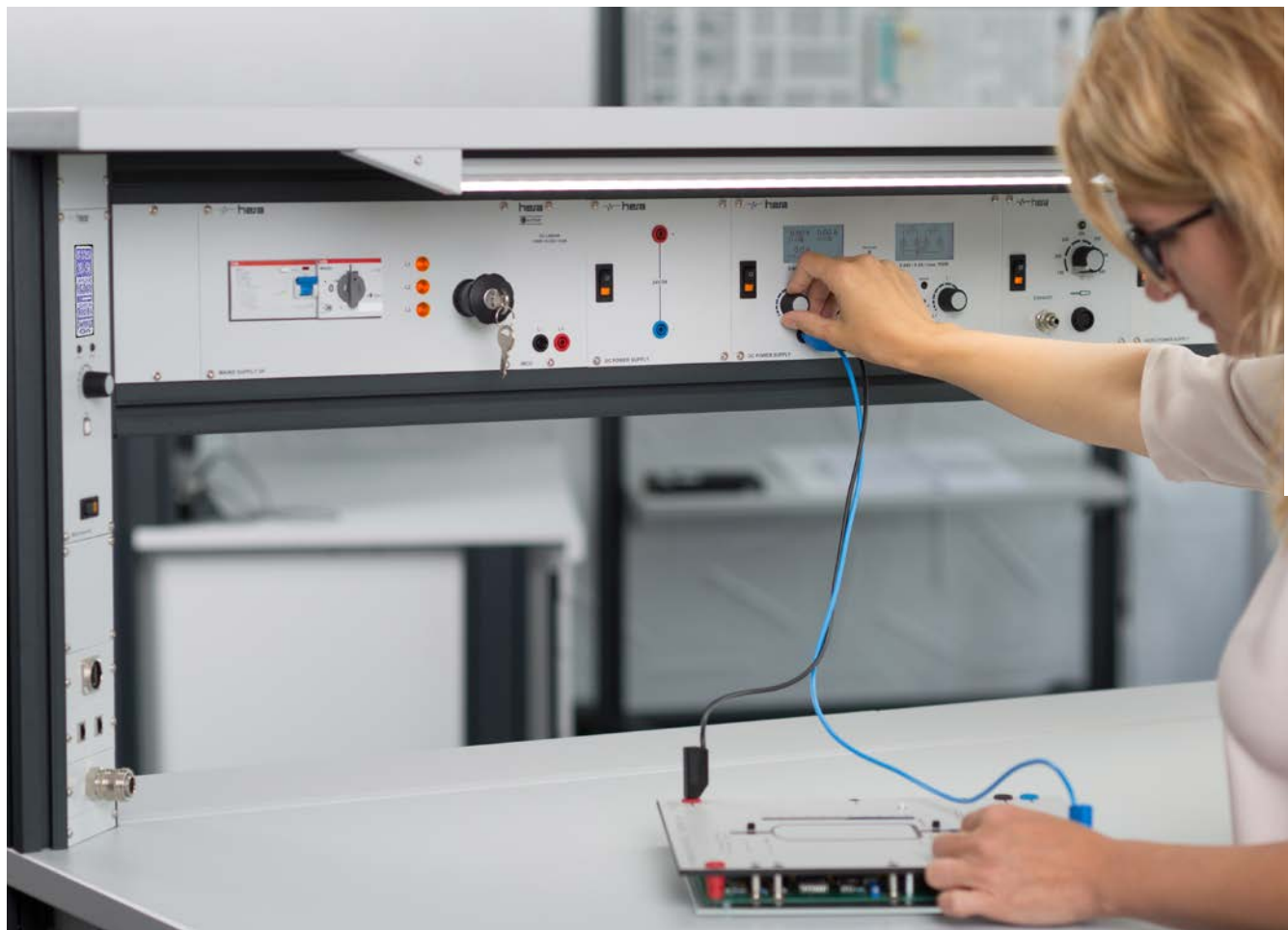
Choose your ideal laboratory power supply from two categories:

Lab Power Supply LINEAR:

- Highly precise, linear controlled power supply with $< 0,7\text{mV}$ ripple
- Power range between 60 - 300W

Lab Power Supply EXTENDED RANGE:

- Powerful switchmode DC supply with $< 5\text{mV}$ ripple
- Extended voltage - and current range without exceeding maximum power



10

11

12

13

EP/ MP DC POWER SUPPLY

- Background illuminated LCD 60x30mm (128x64) for the indication of all important values and modes at a glance.
- Rotary switch with pushbutton function for the precise setting of current and voltage.
- Buttons for fast and intuitive operation.
- Output ON-/ OFF button with status indication in the display.
- Double power supplies with easy selection between 2-channel -, tracking -, serial - or parallel operation.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on / off.
- Front side USB - and rear side LAN interface.

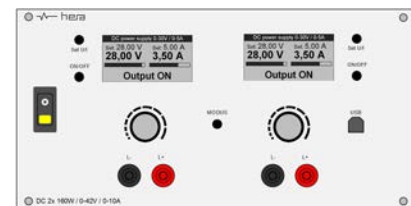
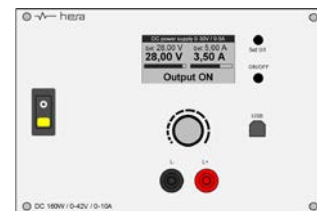
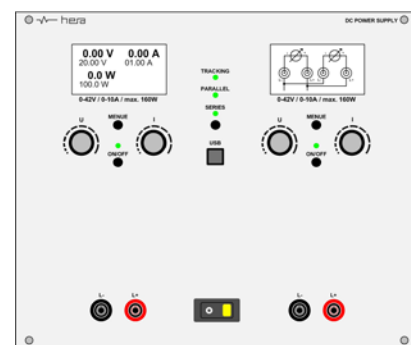


Technical Data Lab Power Supply Extended Range:

- Switchmode lab power supply, up to 160W fanless.
- Stability at 0-100% load: <0,8%.
- Stability at 10% mains alternation: <0,02%.
- Ripple: <5mVrms.
- Set time 10-100% load: <1ms.
- Overvoltage protection: 0...46,2V.
- Accuracy: <0,2%.
- Nominal values of current and voltage adjust one another so the max. power is not exceeded.

Technical Data Lab Power Supply LINEAR:

- In-phase controlled laboratory power supply with transformer switching.
- Silent operating fan with temperature controlled speed at 150W and 300W (60W-fanless).
- Display of measurements: 14bit (16384 dots).
- Resolution of measurements: 16bit (65536 dots).
- Ripple (at $I_a = 50\%$): <0,7mV_{RMS}.
- Set time (load step 10-90% I_a , at 50% U_a): <120μs.
- External voltage protection: 100V / 50V (60W).



Lab Power Supply Extended Range

33 S LLL A 0 V

S System	LLL Type	A Channel	V Interface
4 EP	406 100W / 0 - 42V / 0 - 6A	7 Single	0,75EP / 1,5MP
7 MP	410 160W / 0 - 42V / 0 - 10A	8 Double	1EP / 2MP
	420 320W / 0 - 40V / 0 - 20A		
	803 100W / 0 - 84V / 0 - 3A		
	805 160W / 0 - 84V / 0 - 5A		

Lab Power Supply ICOM LINEAR

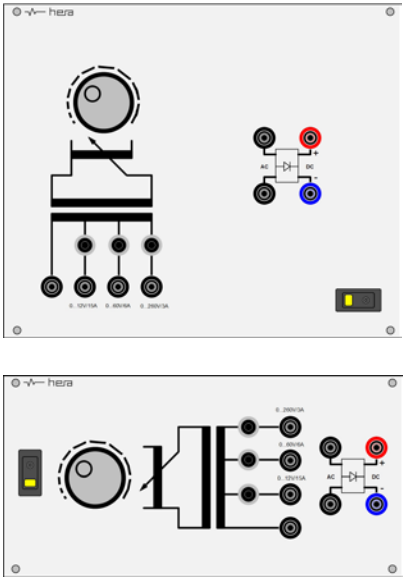
33 S LLL A 03

S System	LLL Type	A Channel
4 EP	302 0 - 30V / 0 - 2A	310 0 - 30V / 0 - 10A
7 MP	305 0 - 30V / 0 - 5A	605 0 - 60V / 0 - 5A

EP/MP AC / DC SOURCE 0 ... 260V/ 3A WITH
DIVIDER TRANSFORMER

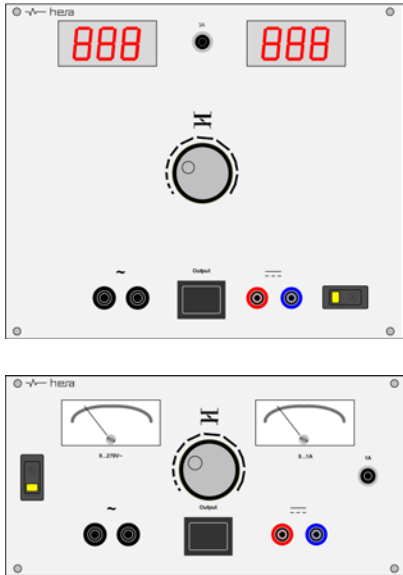
- Variac with downstream isolating transformer for 0...260V/ 3A, 0...60V/ 6A and 0...12V/ 15A.
- Each range protected by front side operated thermomagnetic fuse.
- Output at 4mm safety jacks.
- Bridge rectifier for a pulsating DC voltage with 48% ripple.
- Illuminated 2poles switch for central on / off.

AC / DC Source 0...260V / 3A with Divider Transformer	
334.221.402	1EP
337.221.402	2MP



EP/MP VARIABLE AC / DC SOURCE

- Variac with downstream isolating transformer for floating voltage of 0 ... 100%.
- Bridge rectifier for a pulsating DC voltage with 48% ripple.
- AC - and DC output at 4mm safety jacks.
- Current - and voltage reading.
analog: moving iron instrument, class 1,5.
digital: 3digit LED display TrueRMS (< 0,5% +/- 1 digit).
- Protected by front side operated thermomagnetic fuse.
- Illuminated 2poles switch for central on / off.



Variable AC / DC Source 33					S	LLL	A	02
S System		LLL Type			A Reading			
4	EP	039	0 – 30V / 10A	1EP / 2MP	275	0 – 270V / 5A	2MP	3 analog
7	MP	054	0 – 50V / 5A	1EP / 2MP	274	0 – 270V / 1A + 0 - 60V / 4A	1,5EP / 2MP	4 digital
		271	0 – 270V / 1A	1EP / 2MP	279	0 – 270V / 3A + 0 - 60V / 10A	2EP / 2MP	
		273	0 – 270V / 3A	1,5EP / 2MP				

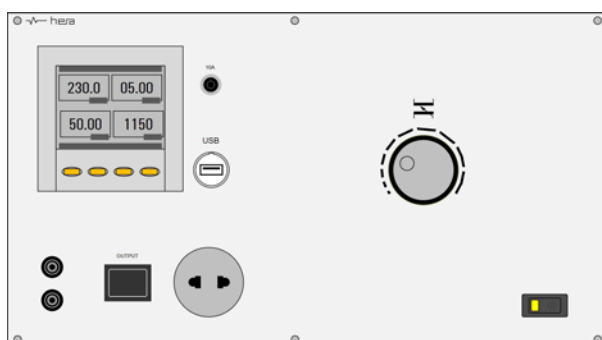
334.279.302: Variable AC/DC Source 0 – 270V / 3A + 0 - 60V / 10A

334.221.402: Variable AC Source 0-260V/ 3A

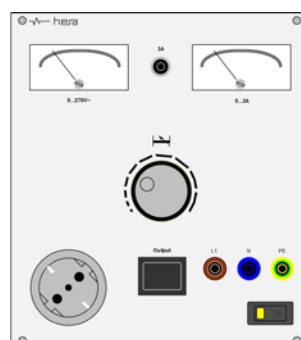
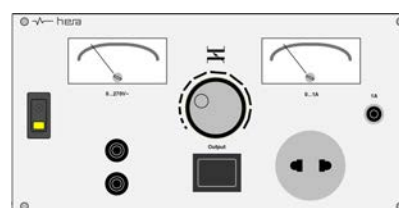
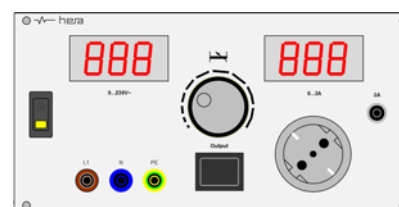
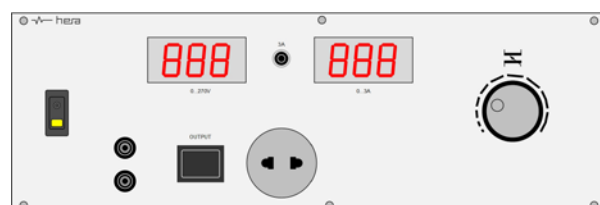


EP/MP VARIABLE AC SOURCE, 1PHASE

- Variac for adjustable output voltage 0...100%.
- Floating version with downstream isolating transformer.
- Protected by front side operated thermomagnetic fuse.
- Selector switch for output at 4mm safety jacks and universal socket (Type F / Franco-American) or PE socket, Type F (other type on demand!).
- Analog: moving iron instrument for current and voltage, class 1,5.
- Digital: LED display for voltage and current TrueRMS (3digit, < 0,5% +/- 1 digit).
- MFD: multifunctional display with graphic LCD with four variably programmable readings and four buttons.
- MFD with front sided USB interface and rear sided LAN interface (technical data page 327).
- Illuminated 2poles switch for central on / off.



Variable AC Source, floating with MFD and USB Interface (3MP)

Variable AC Source
non floating (1,5MP)Variable AC Source
floating (1EP)Variable AC Source
non floating (1EP)

Variable AC Source, floating (1,5EP)

Variable AC Source, 1phase 33 **S** **LLL** **A** 12

S System	LLL Type	A Reading
4 EP	floating	1 analog
7 MP	non-floating	5 digital
	063 0 – 60V / 3A 1EP / 1,5MP	6 MFD (min. 0-270V/5A)
	271 0 – 270V / 1A 1EP / 2MP	7 MFD with USB
	273 0 – 270V / 3A 1,5EP / 2MP	8 MFD with LAN
	275 0 – 270V / 5A 2MP / 3MP (MFD)	
	239 0 – 230V / 10A 3MP	
	279 0 – 270V / 10A 4MP	



EP/MP VARIABLE AC/DC SOURCE 3PHASE

- 3phase variac non-floating with inrush current limiter.
- Protected by front side operated thermomagnetic fuses.
- Output at 4mm safety jacks.
- Output at CEE sockets (not for devices with analog or digital displays).
- AC/DC sources with 6-point rectifier for a pulsating DC voltage (4,3% ripple) at 4mm safety jacks.
- DC voltage - and current reading only at 4MP version.
- Illuminated switch with contactor for central on / off.

Analog Display:

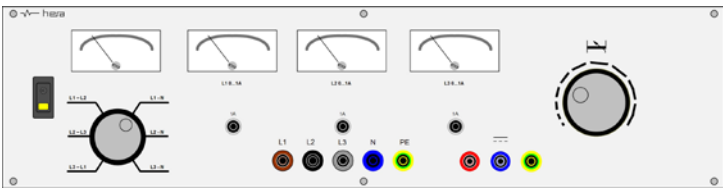
- 1x voltage reading with selector switch for changing the measuring point and 3x current reading (moving iron instrument, class 1,5).

Digital Display:

- 1x voltage reading with selector switch for measuring point change and 3x current display (3digit LED display, TrueRMS; 0,5% +/-1 digit).

MFD (Multifunctional Display):

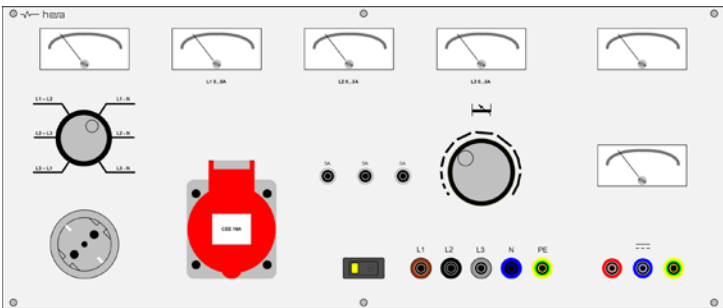
- Graphical LCD for the simultaneous indication of 4 freely programmable values.
- Phase voltages and - currents TRMS.
- Power (active, reactive and apparent, each phase and in total).
- Power factor each phase and in total.
- Frequency.
- High - and low values.
- Harmonic distortion of voltage and current.
- Harmonic analysis for voltage and current.
- Counter for active, reactive and apparant energy.
- Hour counter.



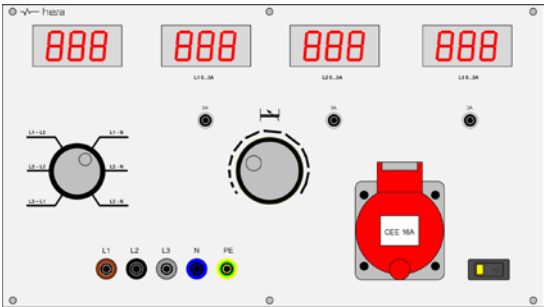
Variable AC/DC Source 3phase (2EP)



Variable AC Source 3phase (2EP) with MFD and USB Interface



Variable AC/DC Source 3phase (4MP)



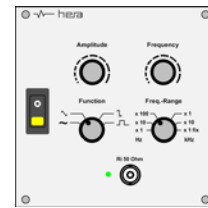
Variable AC Source-3phase (3MP)

Variable AC/DC Source 3phases 33 S LLL A 04			
S System	LLL Power		A Reading
4 EP	AC Source	AC/DC Source	1 analog
7 MP	401 0 – 230V / 400V / 1A 2EP / 3MP	411 0 – 230V / 400V / 1A 2EP / 3MP	5 digital
	403 0 – 230V / 400V / 3A 2EP / 3MP	413 0 – 230V / 400V / 3A 2EP / 3MP	6 MFD (only AC)
	405 0 – 230V / 400V / 5A 4MP	415 0 – 230V / 400V / 5A 4MP	7 MFD with USB
	408 0 – 230V / 400V / 8A 4MP	418 0 – 230V / 400V / 8A 4MP	8 MFD with LAN



EP/ MP ANALOG FUNCTION GENERATOR 200KHZ COMPACT

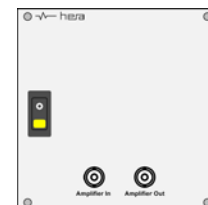
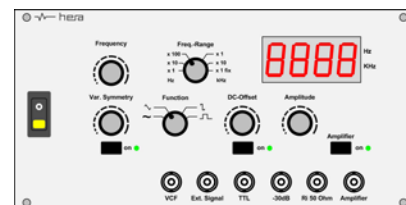
- Selector switch for wave forms: sinus, triangle, square, positive pulse.
- Selector switch for frequency range: x1, x10, x100Hz, x1kHz, x10kHz and 1kHz fix.
- Potentiometer for stepless fine-adjustment.
- Potentiometer for stepless adjustable amplitude 0...20V_{SS}.
- Output at BNC socket (Ri = 50Ω).



Function Generator 200 kHz COMPACT	
334.820.102	0,5EP
337.820.102	1MP

EP/ MP ANALOG FUNCTION GENERATOR 1MHZ (POWER AMPLIFIER)

- Function generator 1MHz with amplifier 100kHz, frequency adjustment with multiturn potentiometer.
- Frequency range adjustable with selector switch in 6 steps.
- Selector switch for wave form: sinus, triangle, square and external signal.
- Variable symmetry via potentiometer 20%...80%.
- Amplitude adjustment via potentiometer 0...30V_{SS} (unloaded).
- DC-Offset (neutral shifting) adjustable between -10V...+10V.
- Frequency setting via external voltage input (VCF).
- 4digit LED display for frequency indication.
- 5x BNC sockets with input for external signal; TTL output, 30dB output, 50Ω output.



Option Amplifier:

- Switchable in the range of 0,1Hz...100kHz.
- 40W_{EFF} continuous power at sinus with 5Ω.
- Short-circuit proofed due to retracted current characteristic.
- Max. output voltage 40V_{SS}.

Function Generator / Amplifier		33 S .653.AAA	
S System	AAA Type		
3 EP	102	no amplifier	1EP / 2MP
6 MP	202	with amplifier	1EP / 2MP
	002	only amplifier	0,5EP / 1MP



EP/ MP DDS FUNCTION GENERATOR LC WITH POWER AMPLIFIER

DDS sweep function generators are applicable for a variety of signals, they can be used as common signal generator, as pulse generator or as sweep generator.

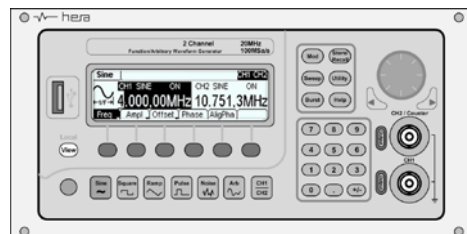
- 6digit LED display.
- Direct navigation per keypad or stepless.
- 16x signals e.g. sinus, rectangular, triangle, ramp, pulse negative/ positive, ...
- Frequency resolution: 10 μ Hz.
- Total distortion: < 1%.
- Rectangular signal: < 50ns rise -/fall time.
- Amplitude: 0 - 20V_{SS} (resolution: 5mV_{SS}).
- Offset: +/- 10V.
- Modulation: FM, AM, PM, PWM, FSK.
- Modulation frequency: 40 mHz - 20 kHz.
- USB interface.
- Power amplifier: 10W.
- Safety class: EN 61010-1; CAT II.



DDS Function Generator LC with Power Amplifier	
334.665.302 3MHz (1EP)	334.665.402 20MHz (1EP)
337.665.302 3MHz (2MP)	337.665.402 20MHz (2MP)

EP/ MP ARBITRARY FUNCTION GENERATOR, 2 CHANNEL

- 2 channel function generator (arbitrary signal generator) with frequency counter and USB interface. Easy menu navigation with graphical display.
- Sinus, rectangular, pulse, ramp, 48 pre-defined arbitrary signals, freely definable arbitrary output signals, noise.
- 2 channels.
- Frequency range sinus: 1 μ Hz - 20MHz, distortion <0.2%.
- Frequency range rectangular: 1 μ Hz - 5MHz, rise time <20ns.
- Frequency range triangle: 1 μ Hz - 150kHz.
- Frequency range arbitrary: 1 μ Hz - 5MHz, resolution 1 μ Hz.
- Wave form memory: 4kpts.
- Output Ri: 50 Ω .
- Sweep function: 1ms - 500s.
- Internal modulation: AM/ FM/ PM/ FSK.
- Amplitude: 2mV_{pp} - 10V_{SS} (channel 1)/ 2mV_{SS} - 3V_{SS} (channel 2).
- Integrated frequency counter (200MHz).
- USB interface for PC connection and USB stick.
- Incl. LabView driver and operating software.



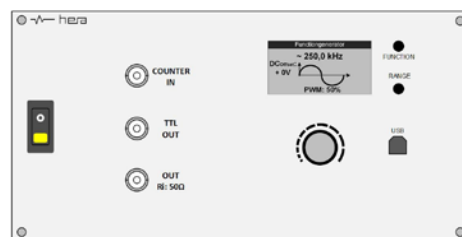
10

Only fits in rack depth >= 300mm.

Arbitrary Function Generator, 2 Channel	
334.666.102	1EP
337.666.102	2MP

EP/ MP FUNCTION GENERATOR ICOM

- Background illuminated graphic LC display 60x30mm.
- Navigation via rotary switch with pushbutton function and 2 buttons.
- Illuminated 2poles switch for central on /off.
- Front side with USB - and rear side with LAN interface.
- LabView-driver and the compatible software IMODdesktop and IMODmobile for remote control.
- 3x BNC sockets.
(COUNTER IN, TTL OUT and OUT Ri: 50Ω).
- Basic functions: sinus, triangle, rectangular, saw tooth, pulse, trapezium.
- Frequency range: 50mHz – 10MHz (sinus), 50mHz – 1MHz (other signals).
- Arbitrary with value table (comfortable uploading with IMODdesktop).
- Other functions: PWM, TTL-output.
- Amplitude: 30V_{SS} (max. 1MHz), max. 3V_{SS} at 10MHz.
- Resolution: 12 Bit.
- Duty cycle: 0,1% ... 99,9%.
- DC Offset: ± 7,5V.
- Frequency measurement: max. 50MHz.

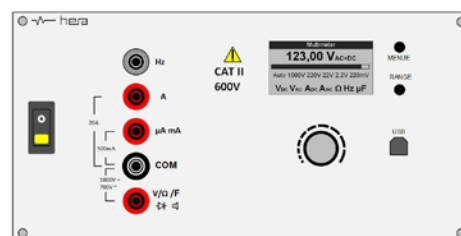


Function Generator ICOM

334.830.102	1EP
337.830.102	1MP

EP/MP DIGITAL MULTIMETER ICOM

- Background illuminated graphic LC display 6x30mm.
- Navigation via rotary switch with pushbutton function and 2 buttons.
- Illuminated 2poles switch for central on / off.
- Front side with USB - and rear side with LAN interface.
- LabView-driver and the compatible software IMODdesktop top and IMODmobile for remote control.
- 5x 4mm safety jacks (Hz, A, μA/mA, COM, V/Ω/F/diode/continuity test/temperature).
- Resolution: 4 3/4 digit (50.000 counts).
- Voltage DC: 10μV – 1000V.
- Voltage AC TrueRMS: 10μV – 700V.
- Current DC: 10nA – 20A .
- Current AC TrueRMS: 10nA – 20A.
- Current inputs protected by fuse.
- Resistance: max. 50MΩ.
- Frequency: 100μHz – 50MHz.
- Capacity: max. 5mF.
- Other functions: diode test, continuity test and temperature measurement.
- Range selection: manual or autoranging.
- CAT II 600V.



604.000.100 Immersion Sensor -70 ... +250°C



604.000.200 Surface Sensor -70 ... +250°C



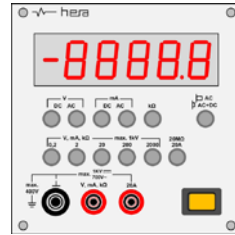
604.000.300 Kapton Sensor -190 ... +260°C

Digital Multimeter ICOM

334.710.602	Digital Multimeter ICOM (1EP)
337.710.602	Digital Multimeter ICOM (1MP)
604.000.100	Immersion Sensor -70 ... +250°C
604.000.200	Surface Sensor -70 ... +250°C
604.000.300	Kapton Sensor -190 ... + 260°C

EP/ MP DIGITAL MULTIMETER COMPACT

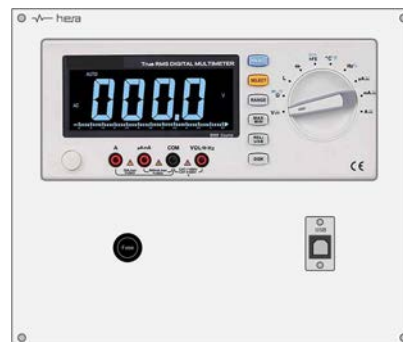
- 4 1/2 digit LED display with a digit height of 13mm.
- Functions: AC / DC voltage, AC / DC current and resistance.
- TrueRMS measurements.
- Range selection: manual with switches.
- Measuring cycle: approx. 2,5 measurements / sec.
- DC voltage: 200mV max. 1000V in 5 ranges (resolution: max. 10µV).
- DC current: 200µA max. 20A in 6 ranges (resolution: max. 10nA).
- AC voltage: 200mV max. 1000V in 5 ranges (resolution: max. 10µV).
- AC current: 200µA max. 20A in 6 ranges (resolution: max. 10nA).
- Resistance: 200Ω max. 20MΩ in 5 ranges (resolution: max. 10mΩ).
- Connection at 4mm safety jacks.
- Illuminated 2poles switch for central on /off.



Digital Multimeter Compact	
334.710.402	0,5EP
337.710.402	1MP

EP/ MP DIGITAL MULTIMETER LC2

- TrueRMS multimeter 6000digits with easy to read LC display and bargraph.
- Measuring range: manual and autoranging.
- Measuring range AC / DC Voltage: 600mV...1000V.
- Measuring range AC / DC Current: 600µA...10A (shortly up to 20A).
- Measuring range resistance: 600Ω...60MΩ.
- Measuring range capacity: 6nF...6mF.
- Measuring range inductivity: 600µH...100mH.
- Measuring range temperature: -40°C...1000°C.
- Measuring range frequency: 6kHz...60MHz.
- Continuity test, transistor -, thyristor - and diode test.
- Min. - / max. - and hold function.
- CAT II 600V.
- USB interface (in EP rear sided).
- Incl. measuring leads, temperature probe and operating software.



Digital Multimeter LC2	
334.711.303	1EP
337.711.303	2MP

EP/ MP PRECISION MULTIMETER 6 1/2 DIGIT, LAN

- Bright and easy to read, high resolution graphic color display, diagonal 109mm for the presentation of curves, histograms, bargraphs, statistics and mathematic functions. Accuracy: 75ppm (max. drift).
- Measuring rate up to 1.000 measurement/sec.
- Voltage DC: 100mV - 1.000V / resolution from 1 μ V.
- Voltage AC: 100mV - 750V / resolution from 1 μ V.
- Current DC / AC: 100 μ A - 10A / resolution from 1nA.
- Resistance 100 Ω - 100M Ω / resolution from 1m Ω .
- Frequency / period 3Hz - 300kHz.
- Capacity measurment 1nF to 100 μ F.
- Temperature with optional RTD/PT100 and thermistor.
- Constant measuring voltage of 5V (LED)-diodes and -arrays.
- Truevolt-technology for reduction of noise and measuring errors.
- Drag-and-drop-data transfer via front-USB.
- I/O-interface: USB, LAN with external trigger.



Only fit in rack depth ≥ 300 mm.

Precision Multimeter 6 1/2 Digit, LAN	
334.702.302	Keysight 34461A (1EP)
337.702.302	Keysight 34461A (2MP)



EP/ MP UNIVERSAL HOLDER FOR HANDHELD INSTRUMENTS

- Front panel with 2 adjustable brackets for handheld device with width: 70 - 90mm and depth: 25 - 45mm.
- The adjustable brackets allow the stepless adjustment of the brackets in depth and angle.
- The universal holder is for the integration of handheld devices into a bench rack system, with the ability to take those out if necessary.



Universal Holder for Handheld Instruments	
334.708.902	0,5EP
337.708.902	1MP

Handheld Instruments	
590.105.100	Digital Multimeter METRALINE DM62
590.105.300	Digital Multimeter METRAHIT TECH
590.105.400	Calibrator METRAHIT CAL
590.105.500	Combination of LCR Meter and Multimeter
590.105.600	LCR Meter



MP MULTIMETER, LCR METER AND CALIBRATOR

Light grey aluminium front panels with abrasion proofed silkscreen printing and flush integrated handheld instruments.

TRMS Multimeter (DM62):

- Resolution: 6600 pxl (3 6/7 digit) and analog bargraph (66 dots).
- Dual background illuminated digital display.
- Basic accuracy: 0,4% VDC.
- Band width: VAC TRMS 2kHz.
- Voltage: VDC 100µV ...1000V and VAC TRMS 100µV ...1000V.
- Current: ADC 10µA ...10A and AAC TRMS 10µA ...10A.
- Resistance: 100mΩ ...60MΩ.
- Temperature: -50...+1.300°C thermo couple type K.
- Frequency measurement: 0,01Hz ...10,00MHz.
- Duty cycle: 1% ...98,9% (1kHz).
- Capacity measurement: 1pF ...40,00mF.
- Continuity - and diode test.
- Hold / peak / min-max / relative (zero).
- Measuring range: manual selection and autoranging.
- Automatic socket blocking.

Precision Digital Multimeter TECH 4½digit TRMS:

- 3 sockets with automatic socket blocking.
- Measuring range: manual selection and autoranging.
- Automatic data logging DATA/ MIN/ MAX.
- Background illuminated display with big figures and bargraph.
- Voltage AC TRMS - DC - AC+DC.
- Current AC TRMS - current DC - current AC+DC TRMS.
- Frequency (Hz by voltage and current).
- Temperature measurement with K thermo couples.
- Capacity measurement, continuity - and diode test.
- Incl. DKD calibration certificate.

Calibrator and Multimeter for electrical Signals (CAL):

- 0 - 24mA source and 0 - 300mA measurement.
- 0 - 20mA and 4 - 20mA range selection.
- Output voltage 0 - 300mV, 3, 10 and 15V.
- Resistance with 2- and 4 wire-simulation max. 0,01mΩ.
- Resolution high resistance measurement max. 30mΩ.
- Simulation for RTD temperature sensors.
- °C/ °F, Pt100/ 1000, Ni100/ 1000.
- Simulation for a variety of thermocouples (J, L, T, U, K, E, S, R, B, N) with internal or external compensation of cold joints.
- Frequency generator for rectangular pulses (1Hz ...1000Hz).
- Ramp -, step -, hold function.
- Incl. DKD calibration certificate.

Multifunctional Meter (Multimeter and LCR Meter):

- 3 ½ digit LCD display with background illumination.
- max. - and measuring hold function.
- DCV 200mV / 20 / 200 / 600V; 100µV; +/- 0,5% + 1 dgt.
- ACV 200mV / 2 / 20 / 200 / 600V; 100µV; +/- 0,8% + 3 dgt.
- DCA 20µA / 2 / 200mA / 10A; 10nA; +/- 0,8% + 1 dgt.
- ACA 20µA / 2 / 200 mA / 10A; 10nA; +/- 1,0% + 3 dgt.
- Frequency range: 40 - 400Hz.
- Ohm 200W / 2 / 20 / 200kW / 2 / 20 / 2000MW; 0,1W; +/- 0,8% 1 dgt.
- Capacity 20 / 200nF / 2 / 100µF; 10pF; +/- 2,5% + 5 dgt.
- Inductivity 2 / 20 / 200mH / 20H; 1µH; +/- 2,0% + 10 dgt.
- Frequency 2 / 20 / 200kHz / 2 / 10MHz; 1Hz; +/- 0,1% + 3 dgt.
- Temperature -40 ... +1000°C; +/- 1,0% + 3 dgt.
- Transistor test, diode - and continuity test with buzzer.
- Incl. test leads, multifunctional adapter and temperature probes.

LCR Meter:

- 4 1/2 digits 27mm LC display with background illumination.
- Resistance: 110Ωm / 1,1 / 11 / 110kΩm / 1,1 / 11 / 110MΩm, ±1,2% + 8 dgt., 10mΩm
- Capacity: 11 / 110nF / 1,1 / 11 / 110µF / 1,1 / 11 / 110mF, ±3,0% + 10 dgt., 1pF
- Inductance: 11 / 110mH / 11 / 20H, ±2,0% + 0,2mH, 1nH
- Measuring series: 3 - 4 per sec.
- Min. and max. value hold function.
- Relative value measurement.
- Diode - and continuity test.



DM62



TECH



CAL



DMM+LCR



LCR-Meter

10

Digital Multimeter, LCR-Meter and Calibrator

337.708.302	TRMS Multimeter DM62, incl. power supply (1MP)
337.708.402	Precision Multimeter TECH 4½ digit TRMS, incl. power supply (1MP)
337.708.602	Calibrator and Multimeter for electrical signals CAL, incl. power supply (1MP)
337.708.702	Multifunctional Meter (DMM + LCR), incl. power supply (1MP)
337.708.802	LCR Meter, incl. power supply (1MP)

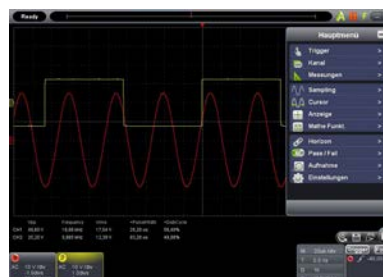
KP/EP/MP PC OSCILLOSCOPE

Front panel with BNC jacks, USB adapter, illuminated on/off switch. The PC oscilloscope is completely wired within the bench rack.

Incl. probes, USB cable and software for the direct transfer of the measuring results to the PC.

PC Oscilloscope PeakTech:

- Total memory 20 Mio. dots for all channels (P1290: max. 10.000 dots).
- Rear sided LAN interface (not P1290).
- Front sided USB interface (isolated at P1290).
- Input max.: 40Vpp (USB) or 400Vpp (LAN) 400Vpp (USB) at P1290.



PC Oscilloscope PicoScope, Series 2000:

- Sampling rate: 1GS/s.
- Incl. function generator and arbitrary signal generator.
- Front side USB 2.0 HighSpeed.
- Spectrum analyzer function.



PC Oscilloscope PeakTech				3SS .AAA .002
SS	System	AAA	Type	
24	3 KP	925	P1290: 2 Channel 25MHz (100MS/s)	
34	0,5 EP	926	P1280: 2 Channel 60MHz (500MS/s)	
37	0,5 MP	927	P1285: 2 Channel 100MHz (1GS/s)	
		928	P1325: 4 Channel 60MHz (500MS/s)	

PC Oscilloscope PicoScope				3SS .AAA .002
SS	System	AAA	Type	
24	3 KP	827	2207B: 2 Channel 70MHz (64MS)	
34	0,5 EP	829	2208B: 2 Channel 100MHz (128MS)	
37	0,5 MP	847	2407B: 4 Channel 70MHz (64MS)	
		849	2408B: 4 Channel 100MHz (128MS)	

MP DIGITAL STORAGE OSCILLOSCOPE

In front panel integrated digital storage oscilloscope incl. BNC cables, PASS/ FAIL adapter, USB cable, probes and software.

- 8" TFT color display (800x600pix).
- Autoset - and autoscale function.
- FAIL / PASS function.
- Front sided USB interface, rear sided LAN interface.



► More technical details on demand.

► Other types and brands available.

Digital Storage Oscilloscope (PEAKTECH)	
338.101.030	30MHz / 2 Channel / 125MSa/s (3MP)
338.101.070	70MHz / 2 Channel / 500MSa/s (3MP)
338.101.100	100MHz / 2 Channel / 1GSa/s (3MP)
338.101.200	200MHz / 2 Channel / 2GSa/s (3MP)

Digital Storage Oscilloscope LCD (GW Instek)	
930.388.100	100MHz / 2 Channel / 2GSa/s (3,5MP)
930.313.000	100MHz / 4 Channel / 2GSa/s (3,5MP)
930.425.100	200MHz / 2 Channel / 2GSa/s (3,5MP)
930.295.700	200MHz / 4 Channel / 2GSa/s (3,5MP)

EP/MP CONSTANT CURRENT SOURCE

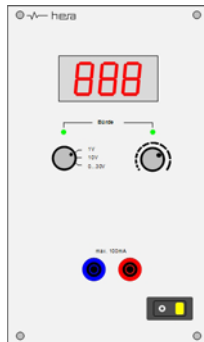
- Selector switch for 4mA, 20mA or 0...50mA.
- Load voltage: max. 30V.
- 10turn potentiometer for 0...50mA.
- LED display 3digit.
- LED indication (load permitted / not permitted).
- Output on 4mm safety jacks.
- Illuminated 2poles switch.



Constant Current Source	
334.050.402	0,5EP
337.050.402	1MP

EP/MP CONSTANT VOLTAGE SOURCE

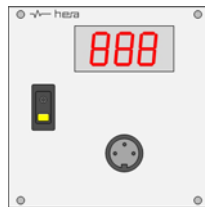
- Selector switch for 1V, 10V and 0...30V.
- Short circuit current: 100mA.
- 10turn potentiometer for 0...30V.
- LED display 3digit.
- LED indication (load permitted / not permitted).
- Output on 4mm safety jacks.
- Illuminated 2poles switch.



Constant Current Source	
334.050.202	0,5EP
337.050.202	1MP

EP/MP DIGITAL THERMOMETER

- Temperature meter for PT100/PT1000 probe according to EN 60751.
- 3-wire technology with automatic compensation of line resistance.
- Measuring current max. 1,5mA. Analog output (not isolated) in mV/°C.
- Accuracy: $\pm 0,1\% \pm 1 \text{ D o. M.}$
- Measuring rate 2,5M/sec.
- 3 1/2 digit LED display (12,5mm; red).
- Incl. rod probe or surface sensor in 3-wire technology.



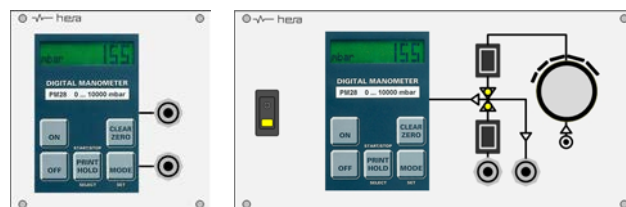
Digital Thermometer	
334.060.102	-100,0°C ..+199,9°C (0,5EP)
334.060.202	-100,0°C...+400°C (0,5EP)
337.060.102	-100,0°C ..+199,9°C (1MP)
337.060.202	-100,0°C...+400°C (1MP)

EP/MP PRESSURE MEASUREMENT / - CALIBRATOR DIGITAL

- Digital instrument for pressure measurement with integrated pressure sensor for differential -, relative - or absolute pressure.
- 3½digit LC display.
- Piezoresistive pressure sensor.
- Measuring range HI, class 0.2% o. E.
- Measuring range LO, class 0.5% o. E.
- In- and outlet with selfclosing fast connectors 4/6mm.

Calibrator with:

- Precision pressure control.
- Selector switch for internal or external supply with 2x 3/2 magnetic valve with LED mode indication.
- Illuminated 2poles switch.
- Rear side pressure connector.



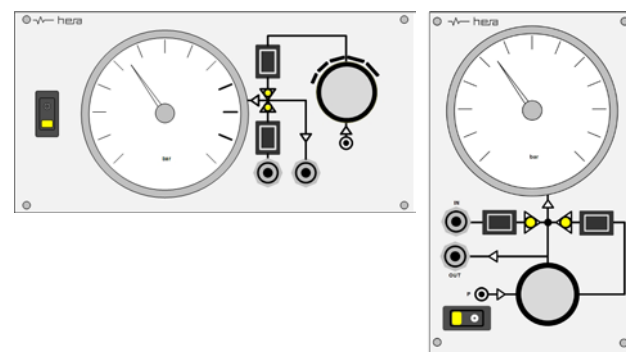
Pressure Measurement - / Calibrator digital

334.072.502	Pressure Measurement 0 - 2000mbar (0,5EP)
334.071.502	Pressure Measurement 0 - 10bar (0,5EP)
334.072.602	Pressure Calibrator 0 - 2000mbar (1EP)
334.071.602	Pressure Calibrator 0 - 10bar (1EP)
337.072.502	Pressure Measurement 0 - 2000mbar (1MP)
337.071.502	Pressure Measurement 0 - 10bar (1MP)
337.072.602	Pressure Calibrator 0 - 2000mbar (1MP)
337.071.602	Pressure Calibrator 0 - 10bar (1MP)



EP/MP PRESSURE CALIBRATOR ANALOG

- Precision pressure regulator.
- Selector switch for internal or external supply with 2pcs 3/2 way magnetic valve with LED mode indication.
- In- and outlet via selfclosing fastconnectors 4/6mm.
- Pressure gauge class 1,0.
- Illuminated 2poles switch.
- Completely hosed with open hose end 4/6.



Pressure Calibrator analog

334.070.102	Vacuum (1EP)
334.073.102	0 - 2,5bar (1EP)
334.076.102	0 - 6bar (1EP)
334.071.102	0 - 10bar (1EP)
337.070.102	Vacuum (1MP)
337.073.102	0 - 2,5bar (1MP)
337.076.102	0 - 6bar (1MP)
337.071.102	0 - 10bar (1MP)



MP APPLIANCE TESTER VDE 0701/0702

- Device for performing DIN VDE 0701 – 0702 tests, repeating test BGV A3 and DIN EN 62353.
- Direct selection of the individual measurement types with function buttons.
- Automatic adaption of limiting value (protective conductor, insulation).
- 2 poles measurement (low ohmic, insulation, equivalent leakage current, voltage)
- Clear text operation with schematic diagram and green / red LED indication for ok / failure.
- Large display, rich in contrast.
- Mains connection is checked for PE contact and automatic switch off in case of dangerous leakage current of test item.
- Bluetooth and USB interface.
- Fast procedure of all activated tests inclusive function test with real-effective-power indication in only one step.
- Instantaneous pole reversal.

Measurements (usage failure 5% v.M. + 1% v.B.)

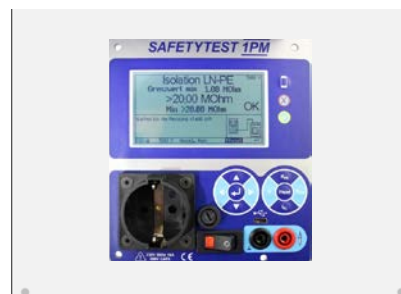
- Protective conductor: $0,000\Omega \dots 4,000\Omega$
test current: 200mA DC / open-circuit voltage 10V.
- Insulation resistance: $0,00M\Omega \dots 20,00M\Omega$,
open-circuit voltage: 50V, 250V, 500V
short-circuit current: 1mA.
- Integrated leakage current switch-off,
residual voltage > approx. 20 mA
- Equivalent leakage current: $0,00mA \dots 20,00mA$,
open-circuit voltage: approx. 200V AC (max. 2,5 mA).
- Difference current: $0,00mA \dots 20,00mA$ AC
according DIN EN 61557-14 for correct evaluation of the harmonic waves.
- Touch protection: $0,000mA \dots 4,000mA$.
- Mains voltage measurement: 200V...250V AC.

Incl. Accessory:

- Interface Bluetooth and USB C.
- Measuring leads 2m, 1x red + 1x black.
- Report Master and Report Master App for 1 year.
- Inhouse calibration certificate.

Optional Test Software:

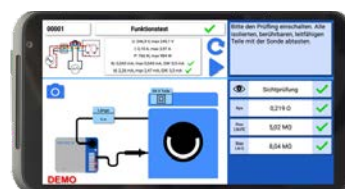
- Windows Software Safety-Remote:
Software for report creation and remote access, as well as data base functionality.
- Android data base app Test Master:
Menu-guided app with camera documentation, report creation and SQLITE data base.



Device Tester VDE 0701/0702 (2MP)



Windows Software Safety-Remote



Android Test Master App



Appliance Tester and Test Software

338.700.302	Appliance Tester VDE 0701/0702 (2MP)
338.700.309	Windows Software Safety-Remote
338.701.308	Android Data Base App Test-Master

Notices:

Notices:

Notices:



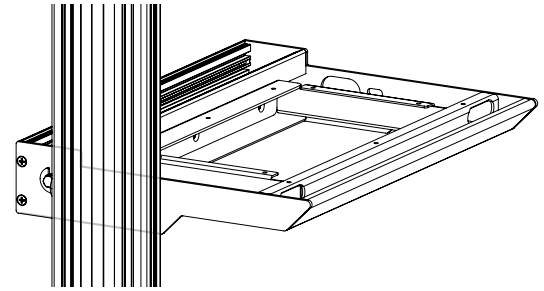
CHAPTER 11: 19" INSTRUMENT RACKS & MODULES

- | | | | |
|------------|---|------------|--|
| 342 | PROFI Multimedia Support and System Racks | 370 | R-, C- and L-Decade |
| 344 | PROFI 19" Cassette Racks | 371 | Load Resistance |
| 346 | 19" Cassette Racks and Carrying Cases | 373 | AC Extra Low Voltage 1-/3-phase |
| 348 | 19" Bench Racks for Modules | 374 | Variable AC Sources 1phase |
| 349 | PROFI 19" Suspended Bench Racks | 376 | Variable AC Sources 3phase |
| 350 | 19" Containers | 378 | Meter Tester and Motor Tester |
| 351 | PROFI 19" Racks | 379 | Motor Tester and Variacs |
| 353 | Carrying Case and Folding Table | 380 | Sinus Frequency Converters |
| 354 | Power Cables and Signal Lamps | 382 | Fixed DC Supplies and Lab Power Supply Compact |
| 356 | Blank Panels, - Cassettes and - Insertions | 384 | Lab Power Supply |
| 357 | Cavity Box and Emergency Stop Button | 386 | High Performance DC Supplies |
| 358 | Mains Panels (1phase / 3phase) | 387 | Function Generator and Amplifiers |
| 361 | Central Mains Module and Central Power Distribution for Classroom Application | 390 | Digital Multimeter |
| 362 | Central Control for Classroom Application | 392 | Oscilloscope |
| 363 | Socket Panels | 393 | Standard Signal Generator and Thermometer |
| 364 | Isolating Transformers and 3phase Sockets | 394 | Digital Manometer and Pressure Calibrator |
| 365 | Measuring Module with Multifunctional Display | 395 | Appliance Tester to VDE 0701/0702 |
| 366 | Test Speaker, Continuity Tester, Pneumatic | 396 | HV Tester and 19" Universal Tester |
| 367 | Interfaces and Keystone Modules | 397 | Subrack for Cassettes & EP/MP Modules |
| 368 | Soldering - / Desoldering Stations | 398 | PROFI 19" Regaleinschub |

PROFI MULTIMEDIA SUPPORT

Heavy duty support with rear sided compact terminal provides sockets and jacks directly in shelves or system rack.

- Rear side with compact terminal for the acceptance of KK modules.
- Surrounding heavy duty frame prepared for hidden cable run into the PROFI extensions.
- Ergonomical tilted front brace for the acceptance of the LED workstation lamp.
- Durable conductive powder coating in light grey or anthracite.
- Dimensions: 390 x 75/40mm (DxH).



Your advantage with the Multimedia Support and System Rack:

- Modular equipable compact terminal: allows configurations across more systems.
- Completely suspended due to integrated heavy duty frame.
- Front brace prepared for LED workstation lamp.



PROFI Multimedia Support 424.0 BB.8 F 0

BB Width and Equipment (MULTI and ENERGY)

05	500mm (39cm / 26cm)	13	1295mm (118cm / 105cm)
06	603mm (49cm / 36cm)	15	1500mm (139cm / 126cm)
08	800mm (69cm / 56cm)	16	1600mm (149cm / 136cm)
09	900mm (79cm / 66cm)	18	1800mm (169cm / 156cm)
10	1000mm (89cm / 76cm)	20	2000mm (189cm / 176cm)
12	1200mm (109cm / 96cm)	23	2303mm (219cm / 206cm)

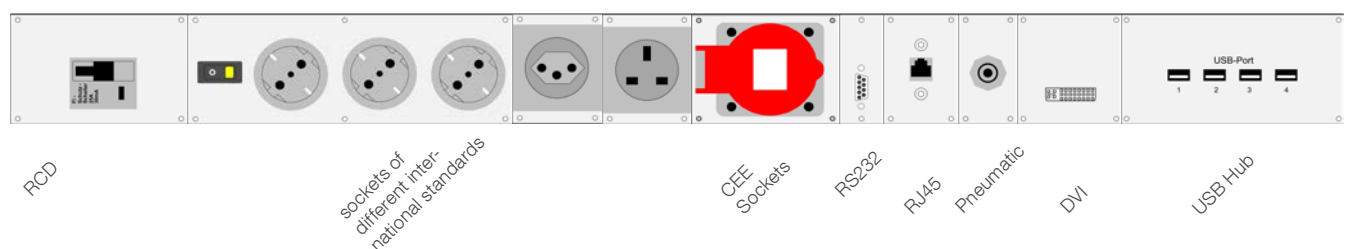
F Extension

0	SINGLE / MULTI
1	ENERGY

Modular Equipment for Multimedia Support:

The rear side of the Multimedia Support holds a straight Compact Terminal and will be modular equipped with the wide spectrum of KK modules.

Example:



► See details to KK modules in chapter 13

SYSTEM RACK FOR MULTIMEDIA SUPPORT

The System Rack is placed on top of the Multimedia Support and allows the integration of modules from different systems. The modules are supplied from the Multimedia Support.

- Body made of 19mm melamine resin covered chip-board in light grey.
- Recessed bottom of the rack allows cable access to the Multimedia Support.
- Variably positioned intermediate walls for system separation or shelf compartment.
- Durable powder coated and removable sheet steel rear panel with ventilaton slots.
- Individually prepared for module integration (EP / MP or 19" technology).
- Depth: 470mm.




H Height



F Fussausschnitt

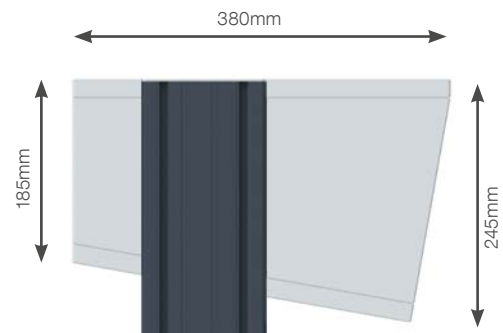


System Rack for Multimedia Support 42 **A** **H** **BB** **.8** **F** **Z**

A Version	H Height	BB Width	F Cutout	Z Intermediate Wall
0 Standard	3 175mm for 3HE / EP	05 500mm 13 1295mm	0 for SINGLE / MULTI	0 none
1 ESD 	5 265mm for 5HE / MP	06 603mm 15 1500mm	1 between SINGLE / MULTI	1 Intermediate Wall
	7 355mm for 7HE	08 800mm 16 1600mm	4 for ENERGY	2 Intermediate Wall
		09 900mm 18 1800mm	5 between ENERGY	3 Intermediate Wall
		10 1000mm 20 2000mm	6 no Cutout	4 Intermediate Wall
		12 1200mm 23 2303mm		5 Intermediate Wall

PROFI 19" CASSETTE RACK SUPERSTRUCTURE 3HE

- Suspended, light grey bench rack with 19mm melamine resin covered chipboard.
- Bottom with ventilation slots.
- Detachable, sectioned rear panel.
- 19" subrack for 3HE cassettes and 3HE front panels in euro raster (DIN 41494). Right and left side with compensating panels, 19" rails and H15 connectors.
- Ventilation panel made of sheet steel with durable powder coating according to RAL No.
- Central 3phase power distribution and terminal block.



PROFI 19" Cassette Rack Superstructure 3HE 421. **BB** **A** **F** 01

BB Width / Equipment

08	800mm / 133TE	16	1600mm / 294TE
09	900mm / 154TE	18	1800mm / 336TE
10	1000mm / 175TE	20	2000mm / 371TE
12	1200mm / 224TE	23	2303mm / 434TE
13	1295mm / 231TE	50	Corner 1213 x 1213 / 210TE
15	1500mm / 273TE		

A Version

0 Standard

1 ESD 

F Extension

9 for SINGLE / MULTI


7 for ENERGY



19" CASSETTE BENCH RACK 3HE

- Light grey body made of 19mm thick melamine resin covered chipboard in light grey. Sides with cutouts for PROFI extensions.
- Detachable, durable powder coated perforated rear panel with two cable glands.
- 19" subracks for 3HE cassettes and 3HE modules in euro raster (DIN 4494). Right and left side with compensating panels, 19" rails and H15 connectors.
- Ventilation panel made of sheet steel with durable powder coating according to RAL No.
- Central 3phase power distribution and terminal block.
- Height: 260mm, depth: 340 / 370mm.
- Other sockets on demand!



19" Cassette Bench Rack			3HE	421. <div>BB</div> <div>A</div> <div>F</div> J1					
<div>BB</div>	Width / Equipment / Nos of Sockets			<div>A</div>	Version	<div>F</div>	Extensions		
06	600mm / 105TE / 2x Type F		18	1800mm / 336TE / 6x Type F		5	Standard	9	for SINGLE / MULTI
08	800mm / 133TE / 2x Type F		20	2000mm / 371TE / 6x Type F		6	ESD 	7	for ENERGY
09	900mm / 154TE / 2x Type F		23	2303mm / 434TE / 6x Type F				1	no Cutout
10	1000mm / 175TE / 2x Type F		50	Corner 1213 x 1213 / 217TE					
12	1200mm / 224TE / 4x Type F		51	Corner 835 x 835 / 105TE					
13	1295mm / 231TE / 4x Type F		52	Corner 935 x 935 / 133TE					
15	1500mm / 273TE / 4x Type F		53	Corner 1035 x 1035 / 161TE					
16	1600mm / 294TE / 4x Type F								




19" CASSETTE RACK STRAIGHT 3HE

- Light grey 19mm melamine resin covered chipboard. Sides with cutouts for PROFI extensions.
- Detachable, durable powder coated perforated rear panel with two cable glands.
- 19" subracks for 3HE cassettes and 3HE modules in euro raster (DIN 4494). Right and left sided with compensating panels, 19" rails and H15 connectors.
- Ventilation panel made of sheet steel with durable powder coating according to RAL No.
- Central 3phase power distribution and terminal block.
- Height: 175mm, depth: 380mm.



19" Cassette Rack Straig 3HE

218. **BB** **A** **F** 01

BB	Width / Equipment (between SINGLE/ MULTI)			A	Version	F	Extensions
06	600mm / 105TE (91TE)	18	1800mm / 336TE (322TE)	5	Standard	2	no Extensions
08	800mm / 133TE (119TE)	20	2000mm / 371TE (357TE)	6	ESD 	0	between SINGLE/ MULTI
09	900mm / 154TE (140TE)	23	2303mm / 434TE (420TE)				
10	1000mm / 182TE (161TE)	50	Corner 1213 x 1213 (217TE)				
12	1200mm / 224TE (210TE)	51	Corner 835 x 835 (105TE)				
13	1295mm / 231TE (217TE)	52	Corner 935 x 935 (133TE)				
15	1500mm / 273TE (259TE)	53	Corner 1035 x 1035 (161TE)				
16	1600mm / 294TE (280TE)						

CARRYING CASE FOR 19" CASSETTES

- Front - and rear side are made of aluminium extrusion and sheet steel sides with recessed handle.
- 19" subracks for 3HE cassettes and 3HE modules in euro raster (DIN 4494). Right and left sided with compensating panels, 19" rails and H15 connectors.
- Completely wired with 2m power cable and CEE plug (others on demand).
- Height: 132mm, depth: 389mm.

Carrying Case for 19" Cassettes 394.3 **BB**.101

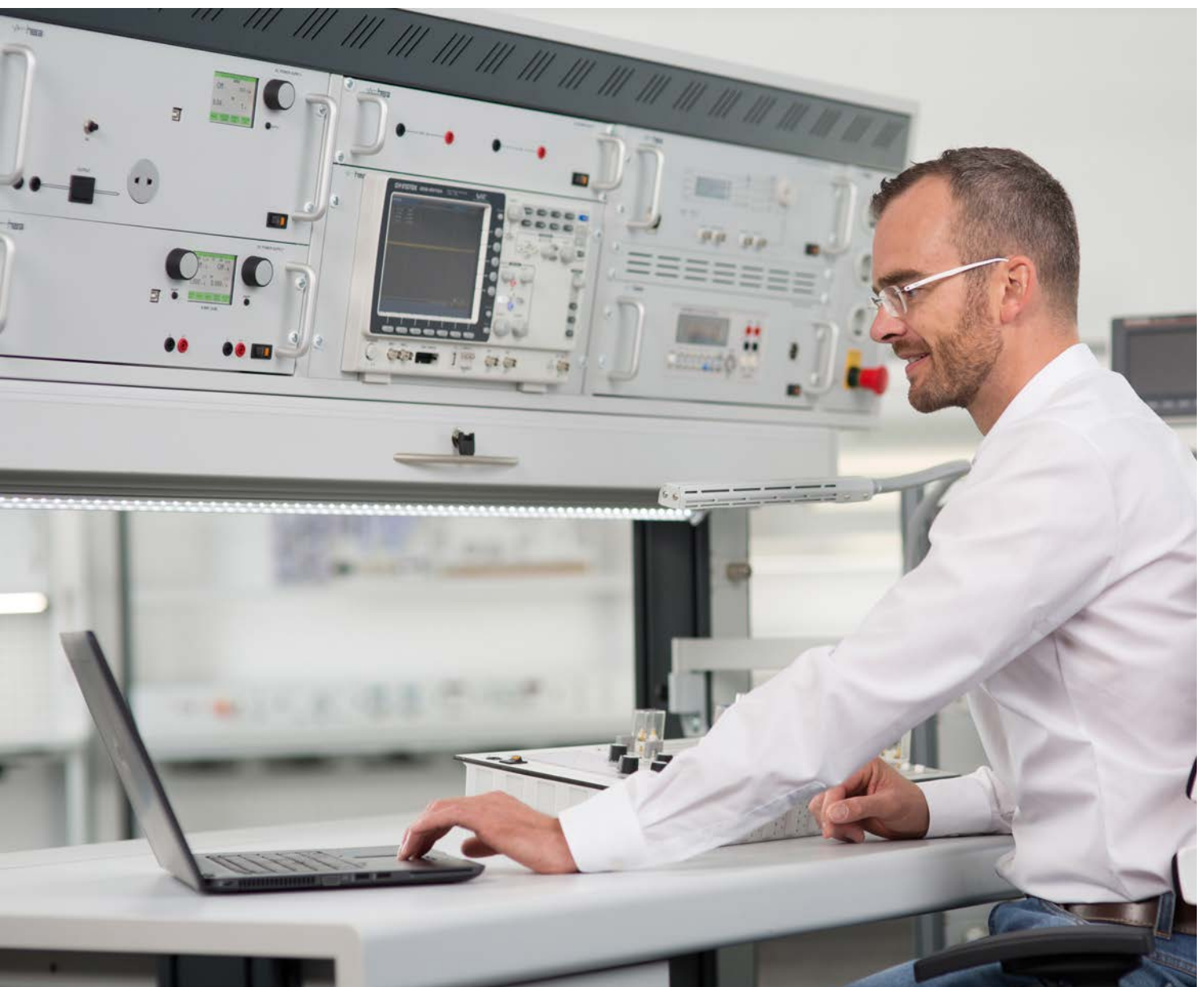
3HE

BB Width / Equipment

42	241mm / 42TE
63	342mm / 63TE
84	449mm / 84TE

HIGH TECHNOLOGICAL DENSITY FOR MOTOR - OR METER TESTING

19" technology is the perfect solution for high power applications such as used for motor - or meter testing. The 7HE racks offer sufficient space for big transformers and meters with large displays or frequency converters. Besides its spacious body, the 19" rack is designed for perfect air circulation to keep the test equipment cool.



19" EASY BENCH RACK FOR 19" PANELS

- Light grey body made of 19mm thick melamine resin covered chipboard.
- Detachable, perforated sheet steel panel, durable powder coated with 2 cable glands.
- Sections for 19" panels with raster profile, cage nuts and 19" rails.
- Right and left side prepared for modules.
- Central 3phase power distribution in each section with integrated sockets Type F (others on demand), hera connectors and terminal block.
- Depth: 470mm.



PROFI 19" EASY Bench Rack

420 **BB** **H** **F** **0** **A**

BB Width / Equipment	H Height	F Cutout	A Version
13 1295mm / 2x Modules + 2x HE Sections	4 4HE / 215mm	0 no Cutout	0 Standard
15 1500mm / 2x Modules + 2x HE Sections + Shelf	7 7HE / 355mm	1 for SINGLE / MULTI	5 ESD 
16 1600mm / 3x HE Sections		2 for ENERGY	
18 1800mm / 2x Modules + 3x HE Sections			
20 2000mm / 2x Modules + 3x HE Sections + Shelf			
23 2303mm / 2x Modules + 4x HE Sections			
50 Corner 1213 x 1213 / 2x HE Sections			

19" BENCH RACK FOR HE AND EP


- Light grey body with tilted front, made of 19mm melamine resin covered chipboard.
- Parallaxfree 19" section 7HE with raster profile, cage nuts and 19" rails.
- Right and left side prepared for modules.
- Lower compartment prepared for EP modules (3HE).
- Detachable, perforated sheet steel panel, durable powder coated with 2 cable glands.
- Central 3phase power distribution in each section with integrated sockets Type F (others on demand), hera connectors and terminal block.
- Depth: 470 / 410mm, height: 510mm.



>> see chapter 10 for EP modules

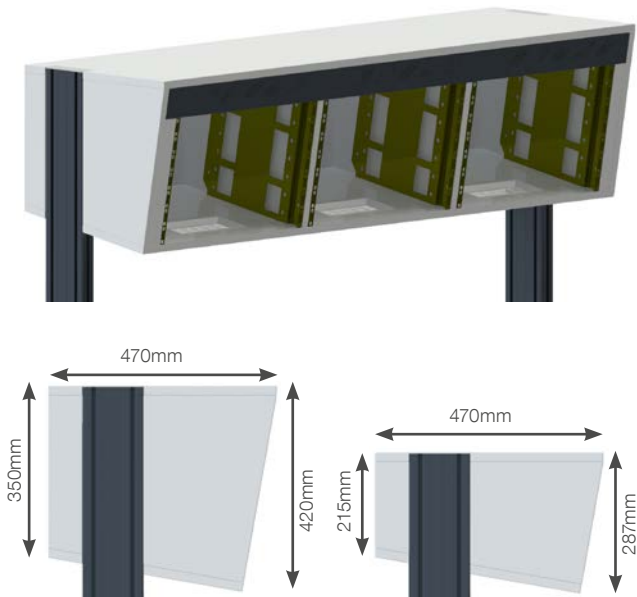
19" Bench Rack for HE and EP



420 **BB** **0.50** **A**

BB Width / Equipment	A Version
13 1295mm / 2x Module + 2x 7HE + 4,5EP	0 Standard
15 1500mm / 2x Module + 2x 7HE + Rest + 5EP	5 ESD 
16 1600mm / 3x 7HE + 5EP	
18 1800mm / 2x Module + 3x 7HE + 6EP	
20 2000mm / 2x Module + 3x 7HE + Rest + 7EP	
23 2303mm / 2x Module + 3x 7HE + 8EP	

PROFI 19" **BENCH RACK SUPERSTRUCTURE** 4HE AND 7HE

- Suspended, light grey bench rack with tilted front, made of 19mm thick melamine resin covered chipboard.
- Sides with cutouts for PROFI extensions.
- Bottom with ventilation slots.
- Detachable, sectioned wooden rear panel.
- 19" HE sections with raster profile, cage nuts and 19" rails.
- Right and left side prepared for modules.
- Central 3phase power distribution in each section with integrated sockets Type F (others on demand), hera connectors and terminal block.
- Ventilation panel made of durable powder coated sheet steel according to RAL No.



PROFI 19" Bench Rack Superstructure 420. BB A F 1			
BB Width / Equipment	A Version	F Cutout	
13 1295mm / 2x Modules + 2x HE Sections	0 7HE / Standard	3 for ENERGY	
15 1500mm / 2x Modules + 2x HE Sections + Rest	1 7HE / ESD 	9 for SINGLE / MULTI	
16 1600mm / 3x HE Panels (only SINGLE/ MULTI)	4 4HE / Standard		
18 1800mm / 2x Modules + 3x HE Panels	5 4HE / ESD 		
20 2000mm / 2x Modules + 3x HE Panels + Rest			
23 2303mm / 2x Modules + 4x HE Panels			
50 Corner 1213 x 1213 / 2x HE Panels			



19" CONTAINER RACK

- Rack made of 19mm thick melamine resin covered chipboard in light grey.
- Optionally with service flap at the side.
- Firmly installed rear panel, upper and lower side with cable access, which can optionally be equipped with ventilation grills.
- Front side with recessed 19" section with raster profile, cage nuts and 19" rails.
- Central power supply with sockets type F (others on demand) at the rear side.
- Width: 543mm.

for 19" Modules:

- With 19" guiding rails.
- Rear side with socket strip.

for Room Power and Control (S. 361-362):

- Big and easily accessible service flap for on-site wiring and service.
- The pedestal containers have cable access from floor.
- C rail for strain-relieve.
- Assembly plate at the side for contactors, cable ducts, and terminal clamp.

G Container



HR: 19" suspended rack with fixing holes in top plate



PR: 19" pedestal rack with base and leveling feet



MR: 19" mobile rack with 70mm twin casters

19" Container Rack 47 **G** **T** **HH.0** **R** **A**

G Container	T Depth	HH Equipment / Height	R Service Flap	A Version
2 Suspended	5 580mm	02 2HE / SR: 130mm	0 left	0 19" Standard
3 Pedestal	6 680mm	04 4HE / SR: 220mm	1 right	1 Rack for Accessory page 352
4 Mobile	7 780mm	07 7HE / SR: 351mm	3 none	2 Power Distribution and Control
		12 12HE / SR: 573 / MR: 655		5 19" ESD 
		14 14HE / PR: 710 / MR: 780		
		15 15HE / PR: 750mm		
		21 21HE / PR: 1050mm		

DOOR FOR 19" CONTAINER RACK

- Wooden door made of 19mm melamine resin covered chipboard, sides ergonomically bevelled, with 2mm PP plastic edge.
- Glass door made of 6mm tempered safety glass.
- Metal hinges, opening 90°.
- Metal segment handles and lock with two keys (master-key-system).

T Door



Wooden Door



Glass Door

Door for 19" Container Rack 475 **T** **HH.00** **A**

T Door		HH Height		A Version			
0	Wood	02	2HE / 130mm	12	12HE / 580mm	0	Standard
5	Safety Glass	04	4HE / 220mm	14	14HE / 670mm	5	ESD 
		07	7HE / 355mm	21	21HE / 985mm		

PROFI 19" RACK

- Highly sturdy rack, same design and technology as PROFI workstations.
- Corners made of SINGLE profile, durable powder coated according to RAL Code.
- Front with recessed 19" instrument front, with raster profile and cage nuts.
- Top and bottom made of massive steel plate, durable light grey powder coated.
- Optionally with 4 heavy duty casters (load capacity 300kg) in various diameters or with 4 heavy duty leveling feet.
- Rear side with lockable sheet steel door, durable light grey powder coated. Lower side with cable outlets.
- Detachable sheet steel side panels, durable light grey powder coated.
- Width: 610mm.

Optionally with lockable safety glass front door:

- Massive transparent perspex door (frameless).
- Solid hinges (right of left side).
- Bolt-lock with key.



PROFI 19" Rack 470. T HH.902				
T	Depth	HH	Height	
0	645mm	14	14HE / 670mm	34 34HE / 1570mm
1	800mm	16	16HE / 760mm	38 38HE / 1750mm
2	900mm	20	20HE / 840mm	43 43HE / 1970mm
3	1000mm	25	25HE / 1160mm	47 47HE / 2150mm
		29	29HE / 1340mm	
Front Door for PROFI 19" Rack 471.0 HH.001				

Feet or Casters	
471.000.100	Set of Leveling Feet (height 20mm)
471.000.000	Set of Casters Ø: 75mm (H: 90mm)
471.000.050	Set of ESD Casters
471.000.200	Set of Casters Ø: 100mm (H: 120mm)
471.000.250	Set of ESD Casters
471.000.300	Set of Lifting Casters Foot, Heavy Duty Polyamid Caster 63mm, load capacity 500kg, (H: 104mm)



19" SLIDING RAILS

- Two hardwearing 19" rails made of chromated sheet steel.
- Incl. assembly set.

Set of Sliding Rails (pair)			
471.000.150	for depth: 645mm	471.002.150	for depth: 900mm
471.001.150	for depth: 800mm	471.003.150	for depth: 1000mm



19" SHELF BOARD 1HE

- Sheet steel shelf board, durable light grey powder coated.
- Front folded 7mm to the bottom and rear folded 7mm to the top.
- Incl. assembly set.

19" Shelf Board 1HE			
471.000.500	for depth: 645mm	471.002.500	for depth: 900mm
471.001.500	for depth: 800mm	471.003.500	for depth: 1000mm



19" EXTENDABLE SHEET STEEL SHELF BOARD

- Sheet steel shelf board, durable light grey powder coated. Width: 440mm; height: 52mm (not in HE raster).
- Lower side with telescopic rail 45kg 610mm extension: 610mm.
- Front with metal handle.

19" Extendable Sheet Steel Shelf Board			
341.009.000	for depth 800, 900 und 1000 (extension: 610mm)		
341.009.010	for depth: 645mm (extension: 457mm)		



19" DRAWER

- 19" sheet steel housing with telescopic full extension, load capacity: 60kg.
- Housing dimensions: 410mm x 372mm (WxD), height: 65mm (at 2/3/4HE) and 167mm (at 5/6/7HE).
- Aluminium front with lock and metal handle.
- Durable light grey powder coating.

19" Drawer			
341.009.200	2HE	341.009.500	5HE
341.009.300	3HE	341.009.600	6HE
341.009.400	4HE	341.009.700	7HE



19" KEYBOARD DRAWER 1HE

- Light grey 19" keyboard drawer 1HE made of metal.
- Keyboard extension on ball bearings with metal handle.
- Safety lock with 2 keys.
- German industrial keyboard with standard sized buttons, windows function keys, integrated touchpad or trackball (US keybord on demand).
- 2m connecting cable.

19" Keyboard Drawer 1HE	
377.070.200	with Touchpad
377.070.250	with Trackball



CARRYING CASE FOR 19" PANELS

- Durable powder coated sheet steel housing with foldable handles (3HE without handles), reinforced sides, bottom and rear panel with ventilation slots.
- Incl. sliding rails and power cord.
- Depth: 490mm.


Carrying Case for 19" Panels			
394.003.500	3HE	394.007.500	7HE
394.004.500	4HE	394.010.500	10HE
394.006.500	6HE		



FOLDING TABLE FOR PROFI RACK

- Light grey 19mm thick melamine resin covered chip-board in light grey with 3mm PP plastic edge. Width: 400mm.
- Hardwearing folding mechanism for fixation to the PROFI profiles; white finish (standard) or anodized (ESD).
- Beam length: 300mm.
- Max. distributed load: 100kg.
- ESD version with surface - and volume conductive multilayer chipboard (according to DIN EN 61340). Conductive connection between folding mechanism and PROFI rack.



Folding Table for PROFI Rack				479. T 0 P .00 A	
T Depth		P Table Top		A Version	
0	645mm	0	19mm	0	Standard
1	800mm	3	30mm	5	ESD 
2	900mm				
3	1000mm				

POWER CABLES

Flexible power cables for the connection to the bench racks.



Power Cable			
291.001.100	5m (3x 1,5mm ²) with Open End	291.001.300	5m (5x 2,5mm ²) with CEE Plug 16A red
291.001.140	Type F Plug for Self Assembly (Euro)	291.001.350	5m (5x 6mm ²) with CEE Plug 32A red
291.001.144	Type J Plug T12 for Self Assembly (Swiss)	291.001.400	5m (3x 1,5mm ²) with CEE Plug 3poles blue
291.001.147	Type G Plug for Self Assembly (British)	291.001.500	5m Emergency Stop Cable (2x 1,5mm ²), Open End
291.001.257	5m (3x 1,5mm ²) 10A with Type J Plug	291.001.550	3m Emergency Stop Cable (2x 1,5mm ²), Open End
291.001.200	3m (3x 1,5mm ²) with Type F Plug	291.001.603	3m Patch Cable, grey with RJ45 CAT6
291.001.250	5m (3x 1,5mm ²) with Type F Plug	291.001.605	5m Patch Cable, grey with RJ45 CAT6
291.001.150	5m (5x 2,5mm ²) with Open End	291.001.610	10m Patch Cable, grey with RJ45 CAT6
291.001.256	5m (3x 1,5mm ²) with Type G Plug	291.001.045	0,4m EP/ MP Plug with Type F Plug
291.001.258	4m Power Cord with NEMA 5-15 Plug (US)		

SIGNAL LAMP

The signal lamp is mounted on top of a bench rack or extension. It indicates the actual mode of an electrical test bench and is a recommended safety feature for many applications. The signal must be visible from all sides, it indicates e.g. off / extra safe voltage / mains voltage.

- Signal lamp with foot, diameter: 70 / 40mm.
- Red, green and / or yellow signal element 230V.
- Assembled on bench rack or extension and connected to mains supply.
- Incl. power cord and wiring.



on PROFI extension
with 1x LE 40mm



side of the extension
2x LE 70mm



on top of bench rack
or ENERGY extension
3x LE 40mm

Signal Lamp 331.03 A L B D			
A Signal Elements	L Lamp	B Fixation	D Diameter
1 1x LE (red)	1 Filament 5W	0 bench rack / ENERGY extension	0 70mm Standard
2 2x LE (red / green)	3 LED Continuous	1 PROFI extension	1 40mm Slim
3 3x LE (red / green / yellow)		2 at the side of an extension	

WIDE RANGE OF APPLICATIONS: FROM TESTING TO METROLOGY

The 19" system offers a wide range of instruments and sources with high quality safety features for countless applications. With respect to the individual requirements a workstation can be equipped with instruments of medium industrial standard or with calibrated instruments of highest accuracy. Check out the variety on following pages.



19" Cassette

Width:
TE = 5,08mm

Height:
3HE (128mm)

Depth:
290mm



19" Insertion

Width:
19" = 483mm

Height:
HE (44,45mm)

Depth:
360mm

19" TE BLANK PANEL AND BLANK CASSETTE

- Aluminium front panel, durable light grey powder coated with fixing bolts.
- Abrasion proofed silkscreen printing.
- Width: in 7x TE raster (TE = 5,08mm).
- Height: 3HE (128mm).

Cassette features:

- Side panels made of anodized aluminium with slots for the acceptance of breadboards in standardized euro format.
- Rear side made of aluminium with H15 connector.
- Depth: 290mm.



Blank Panel / Blank Cassette			340.0 HH, A 02
HH Height			A Version
07 7TE (only blank panel)	28 28TE	49 49TE	1 Blank Panel
14 14TE (only blank panel)	35 35TE	56 56TE	2 Blank Cassette
21 21TE	42 42TE	63 63TE	
		84 84TE	

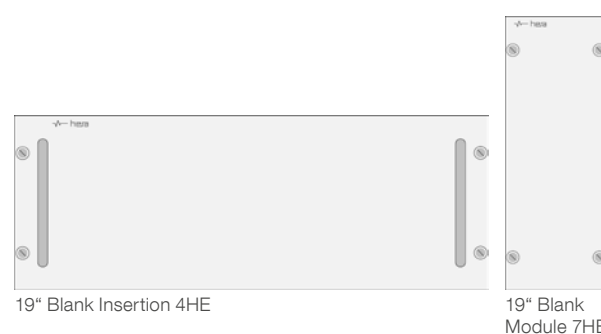
19" HE BLANK PANEL, BLANK MODULE AND BLANK INSERTION

- Aluminium front panel light grey powder coated with fixing bolts.
- Abrasion proofed silkscreen printing.
- Width: 19" (483mm); module: 115mm.
- Height: in HE raster (HE = 44,45mm).

Insertion features:

- 2 metal handles.
- Chassis with perforated side panels, fixing panel and cover with ventilation slots.
- Rear panel with 1m power cord and PE plug.
- Depth: 360mm.

19" HE	Blank Panel	Blank Module	Blank Insertion
1HE	340.001.302		
2HE	340.002.302		
3HE	340.003.302		340.003.402
4HE	340.004.302	331.000.402	340.004.402
5HE	340.005.302		
6HE	340.006.302		340.006.402
7HE	340.007.302	331.000.302	340.007.402
1HE with Ventilation Slots	340.021.302		



19" PANEL WITH **CAVITY BOX**

- Cavity box for the flexible equipment with flush-mounted installation material.

340.220.102	Cavity Box 21TE
-------------	-----------------

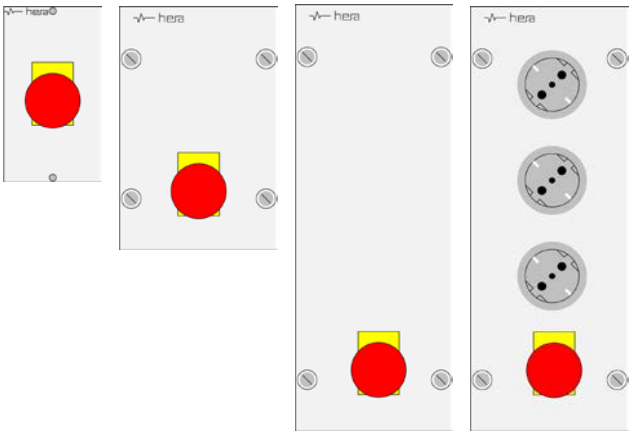
Suitable Installation Sockets and Jacks	
333.220.500	Blank Cover 1fold
333.220.502	Blank Cover 2fold
333.220.510	TV-Antenna-Jack 2 holes
333.220.520	SAT-Antenna-Jack 3-3 holes
333.220.530	Double-UAE-Jack RJ45
333.220.540	TAE Jack 6F
333.220.550	red PE Socket Type F with Label
333.220.560	PE Socket with 2x USB Charging Jack 2,4A



19" PANEL WITH **EMERGENCY OFF BUTTON**

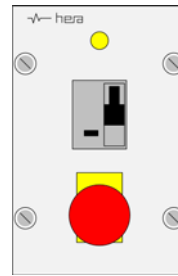
- 19" aluminium front panel, durable light grey powder coated with abrasion proofed silkscreen printing and fixing bolts.
- Mushroom type emergency off button with NC contact, unwired.

Emergency Off Button		
	Rotation Release	Key Release
14TE	331.006.102	331.016.102
21TE with Protec- tive Collar	331.006.202	331.016.202
7HE	331.006.302	331.016.302
4HE	331.006.402	331.016.402
7HE with 3x PE Socket	331.007.302	331.017.302

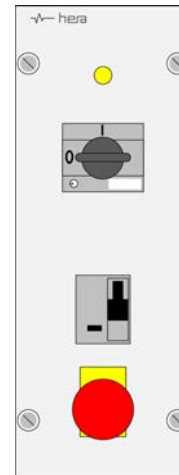


19" Mains Panel 16A

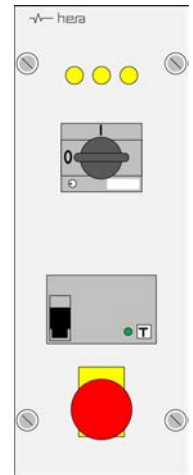
- Central protection of the instrument rack.
- Voltage control lamps.
- Motor circuit breaker 12,5-16A with undervoltage release.
- RCD 25A / 30mA type A or sensitive to all kind of currents, type B (for educational laboratories according to VDE 0100-723).
- Emergency off button with rotation - or key release, yellow signal ring and NC contact.
- The 2HE version comes with PE socket in 1phase and CEE socket in 3phase.
- Completely wired with input terminal and output coupler.



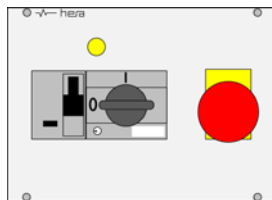
331.460.102
Mains Module 4HE



331.165.102
Mains Module 7HE



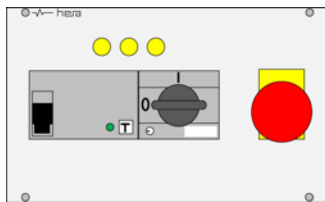
331.177.102
Mains Module 7HE



331.065.102 Mains Cassette 35TE



331.265.102 Mains Insertion 2HE



331.077.102 Mains Cassette 42TE



331.277.102 Mains Insertion 2HE

Mains Panel 16A

331. **S** **P** **T** **N** 02

S System

- 0 19" Cassette Panel 21-42TE
- 1 19" Mains Module 7HE
- 2 19" Mains Panel 2HE
- 4 19" Mains Module 4HE

P Phases

- 6 1phase 230V
- 7 3phase 400V

T RCD

- 0 none
- 5 Type A
- 7 Type B

N Emergency Off

- 0 none
- 1 Emergency Off
- 2 Emergency Off with Key
- 3 Black Emergency Stop with Key

331.xxx.xx8

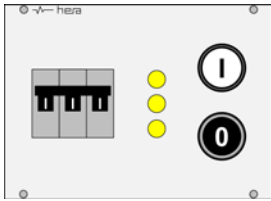
Mains Panels 120V Versions



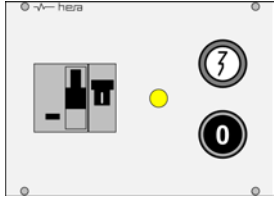
19" MAINS PANEL WITH CONTACTOR

The mains panels are equipped with pushbutton and contactor.

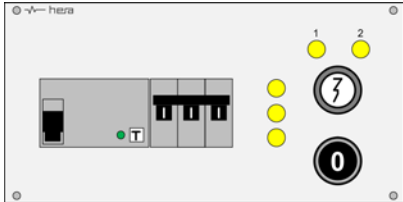
- RCD 25A / 30mA type A or sensitive to all kind of currents, type B (for educational laboratories according to VDE 0100-723).
- Automatic circuit breaker B16.
- Voltage control lamps.
- 1- or 2-level-activation with on / off button, contactor and status indication.
- Completely wired with input terminal and output coupler.



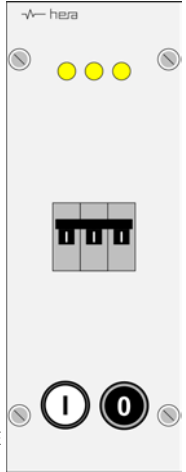
331.530.002
Mains Cassette 28TE



331.515.002
Mains Cassette 28TE



331.537.202 Mains Cassette 42TE



331.630.002
Mains Module 7HE

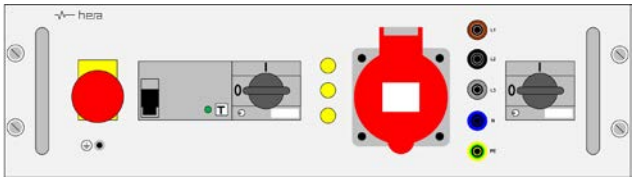
Mains Module with Contactor 331. S P T F 02			
S System	P Phase	T RCD	F Activation
5 19" Cassette 21-56TE	1 1phase with CB B16	0 none	0 1-level with On / Off Button
6 19" Module 7HE	3 3phase with CB B16	5 Type A	1 1-level with Key-On / Off Button
	2 1phase with MCB and UVR	7 Type B	2 2-level with Key-On / Off Button
	4 3phase wit MCB and UVR		
331.xxx.xx8 Mains Panels 120V Versions			

19" MAINS PANEL 32A

- Voltage control lamps.
- Motor circuit breaker 32A with undervoltage release.
- RCD 40A / 30mA, type A or sensitive to all kinds of currents, type B.
- Mushroom type button with NC contacts.
- CEE socket 32A.

- 5x safety jacks.
- 16A output protection with motor circuit breaker.
- Completely wired with input terminal and output coupler.

Mains Panel 32A 331.37 T N 02	
T RCD	N Emergency Off
0 none	0 none
5 Type A	1 Emergenc Off
7 Type B	2 Emergency Off with Key
	3 Black Emergency Stop with Key



SAFETY AND POWER DISTRIBUTION FOR EDUCATIONAL LABS

As an instructor you are bearing great responsibilities. For that reason it is very important to have your lab always safely under control. In following pages you will find multiple solutions for practical central protection and power distribution. For controlling the student workstations you can choose between directly entering a key code at the distribution rack or control by LAN or WLAN.



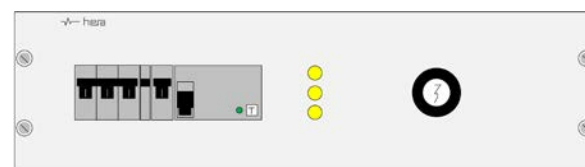
19" MAINS MODULE FOR INSTRUCTOR BENCH

Installed in a 19" rack of the instructor bench. Applicable as central protection of the complete lab. Either a central power distribution or workstations with individual mains panels are connected downstream. Following components are available:

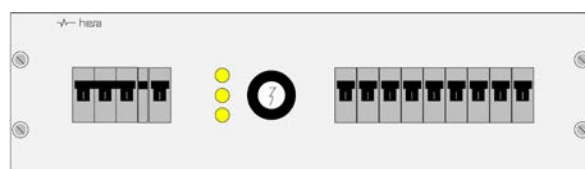
- Circuit breaker 40A or 63A with undervoltage release, for central on /off and for the connection of all emergency stop contacts.
- Circuit breaker B6 for workstation protection.
- Key switch for mains module activation.
- 3x phase control lamps (L1, L2 and L3).
- Optionally with RCD 300mA, type B.
- Optionally with 9x circuit breaker B16 for 1phase protection (8x student + 1x instructor).
- Terminal for power input and output terminal for all training stations.



332.091.106: 19" Mains Module with Circuit Breaker 63A 3HE



332.091.204: 19" Mains Module with Circuit Breaker 40A and RCD 3HE



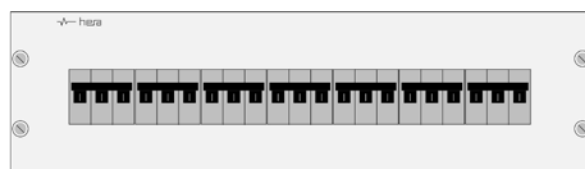
332.091.304: 19" Mains Module with Circuit Breaker 40A and 9x Circuit Breaker B6 for student workstations 3HE

19" Mains Module for Instructor Bench 3HE	
332.091.104	Circuit Breaker 40A no RCD
332.091.106	Circuit Breaker 63A no RCD
332.091.204	Circuit Breaker 40A with RCD 300mA
332.091.206	Circuit Breaker 63A with RCD 300mA
332.091.304	Circuit Breaker 40A no RCD, 9x Circuit Breaker B6

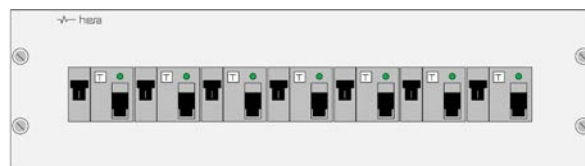
19" POWER DISTRIBUTION FOR TRAINING BENCHES

Installed in a 19" rack of the instructor bench. It is centrally located in the instructor bench and protects the individual training stations. Following components are available:

- Automatic circuit breaker B16 1- or 3poles for individual workstation protection.
- Optionally with RCD 30mA, sensitive for all kind of currents, type B.
- Terminal for power input and output terminal for all training stations.

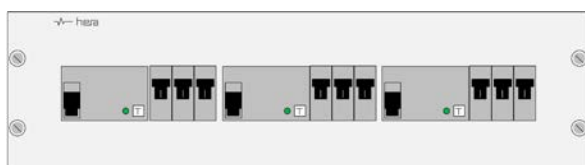


332.092.303: 19" Power Distribution for 7x 3phase (7x CB B16 3phase) 3HE



332.092.203: 19" Power Distribution for 7x 1phase + RCD (7x CB B16 + RCD 2poles 30mA) 3HE

19" Power Distribution for Training Benches	
332.092.101	for 9x 1phase (9x CB B16) 3HE
332.092.103	for 13x 1phase (13x CB B16) 3HE
332.092.105	for 17x 1phase (17x CB B16) 3HE
332.092.107	for 21x 1phase (21x CB B16) 3HE
332.092.203	for 7x 1phase + RCD (7x CB B16 + RCD 2pole 30mA) 3HE
332.092.205	for 9x 1phase + RCD (3x RCD 4pole + 9x CB B16) 3HE
332.092.303	for 7x 3phase (7x CB 3xB16) 3HE
332.092.305	for 13x 3phase (13x CB 3xB16) 6HE
332.092.403	for 6x 3phase + RCD (6x CB 3xB16 + FI 4pole 30mA) 6HE
332.092.405	for 6x 3phase + RCD (3x RCD 4pole + 6x CB 3xB16) 6HE



332.092.205: 19" Power Distribution for 9x 1phase with RCD (3x RCD 4poles + 9x CB B16) 3HE



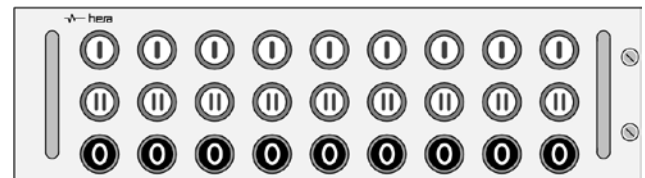
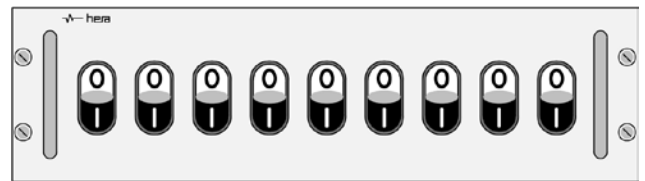
332.092.405: 19" Power Distribution for 6x 3phase with RCD (3x RCD 4poles + 6x CB B16 3phase) 6HE

19" CENTRAL CONTROL (PUSH-BUTTON-CONTACTOR)

Installed in a 19" rack of the instructor bench for the central control of the training stations. The training stations must be equipped with mains panel with contactor for activation.

- On / Off buttons with control lamp for 1-level activation per channel (student bench).
- 2x On button with control lamp, 1x off button for 2-level enabling per channel (student bench).
- Terminal for the connection to customers control cables. 1-level mind. 4 wires per channel, 2-level min. 6 wires per channel

19" Central Control (Pushbutton - Contactor)	
332.093.101	for 4x 1-level Channels
332.093.103	for 9x 1-level Channels
332.093.201	for 4x 2-level Channels
332.093.203	for 9x 2-level Channels



19" CENTRAL CONTROL (LOGO)

Installed in a 19" rack of the instructor bench for the central control of the training stations. The training stations must be equipped with mains panel with contactor for activation.

- LOGO! 230RCE Industrial control with programmed switching logic (individual / groups):
 - 8x digital inputs
 - 4x relay outputs 230V / 3A
 - Ethernet interface and integrated web server
- LOGO! DM16 230R expansion module:
 - 8x digital inputs
 - 8x relay outputs 230V / 3A
- Operation and observation via touch panel:
 - LOGO!8 + KTP400 Comfort 4"
 - oder
 - LOGO!8 + KTP700 Comfort 7"

19" Central Control LOGO	
332.093.301	Touch Panel 4" with 12x Relay Outputs
332.093.303	Touch Panel 4" with 20x Relay Outputs
332.093.401	Touch Panel 7" with 12x Relay Outputs
332.093.403	Touch Panel 7" with 20x Relay Outputs



CENTRAL CONTROL RC

Remote control for central control without any wirings. Receiving module in each student bench.

NOTE: only applicable for wooden bench racks!

Central Control RC	
332.090.800	Remote Control with 8 Channels
332.090.850	Remote Control with 32 Channels (8x4 levels)
332.090.920	RC Receiving Module with 2 Channels (Relay Output)
332.090.940	RC Receiving Module with 4 Channels (Relay Output)



332.090.800
Remote Control



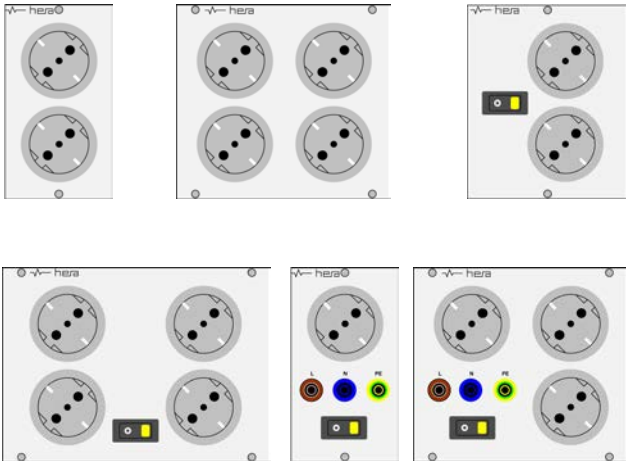
332.090.920
RC Receiving Module

19" **SOCKET PANEL (TE)**

19" aluminium front panel light grey powder coated with abrasion proofed silkscreen printing, fixing bolts and H15-connector.

- PE socket (type F), grey, 45° position.
- Depending on the type with /without illuminated 2poles switch and 4mm safety jacks (L, N, PE).
- Other socket types on demand.

PE Sockets (TE)		
340.330.202	2x PE Sockets	14TE
340.335.202	4x PE Sockets	28TE
340.330.102	2x PE Sockets with Switch	21TE
340.335.102	4x PE Sockets with Switch	35TE
340.121.102	1x PE Socket with Switch and Jacks	14TE
340.221.102	3x PE Sockets with Switch and Jacks	28TE

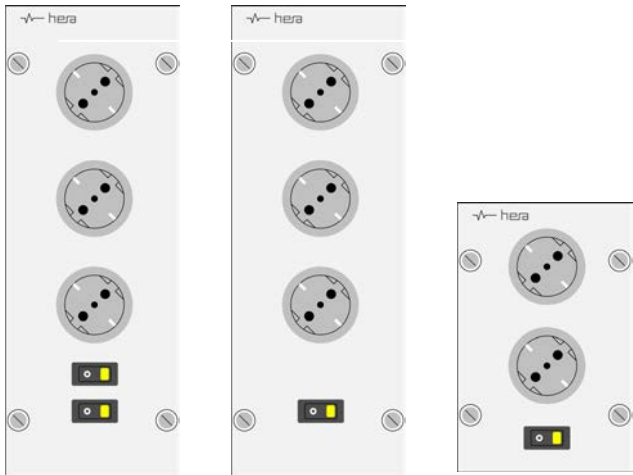


19" **SOCKET MODULE**

19" aluminium front panel light grey powder coated with abrasion proofed silkscreen printing, fixing bolts and H15-connector.

- PE socket (type F), grey, 45° position.
- Illuminated 2poles switch.
- Other socket types on demand.

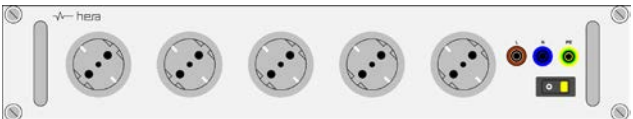
PE Sockets		
331.007.352	3x PE Sockets with extra Switch for Over-head Lamp	7HE
331.021.302	3x PE Sockets	7HE
331.021.402	2x PE Sockets	4HE



19" **SOCKET PANEL (HE)**

- 5x PE Sockets (type F), grey, 45° position.
- 3x 4mm safety jacks (L, N, PE).
- Illuminated 2poles switch.
- Other socket types on demand.

341.402.102	PE Sockets	2HE
-------------	------------	-----

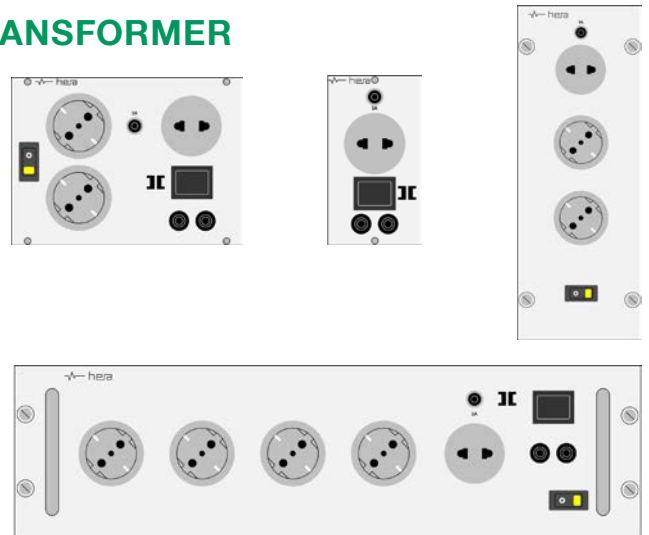


19" SOCKET PANEL WITH ISOLATING TRANSFORMER

- Iron core transformer for the supply of floating 230AC voltage.
- Protected by a front side operated thermomagnetic fuse.
- Output on universal socket (Type F, E, NEMA), no protective earth.
- Illuminated 2poles switch for central on/ off.

Some types with:

- PE sockets (type F), 45° positioned (other types on demand).
- Output selector for socket or 4mm safety jacks.



Socket Panel with Isolating Transformer

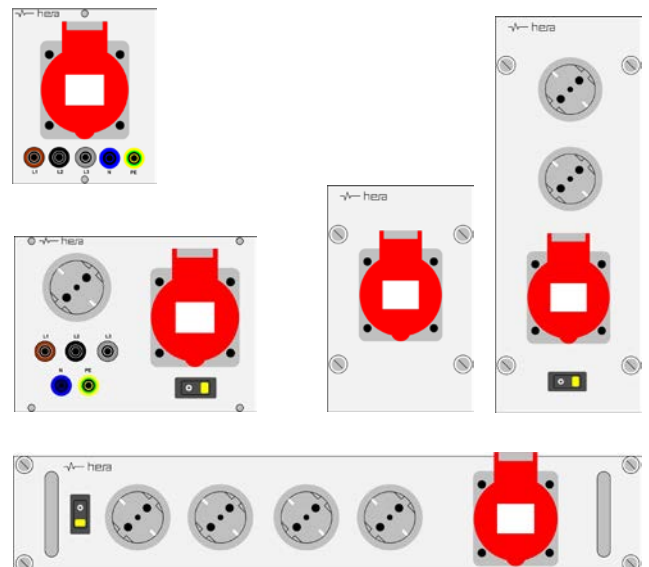
340.535.102	19" Cassette 700VA/ 3A + Selector for Safety Jacks, with 2x Sockets Type F (35TE)
340.535.122	19" Cassette 115VA/ 0,5A + Selector for Safety Jacks (14TE)
331.024.302	19" Module 700VA/ 3A 4HE
331.025.302	19" Module 700VA/ 3A + 2x Sockets Type F (7HE)
341.503.102	19" Panel 700VA/ 3A + Selector for Safety Jacks, with 4x Sockets Type F (3HE)
341.503.202	19" Panel 3700VA/ 16A + Selector for Safety Jacks, with 4x Sockets Type F (4HE)

19" CASSETTE AND PANEL WITH CEE SOCKET

- CEE socket 5poles red 400V/16A 6h.
- 4mm safety jacks.
- Sockets (Type F), 45° positioned (others on demand).
- Illuminated 2poles switch with contactor.

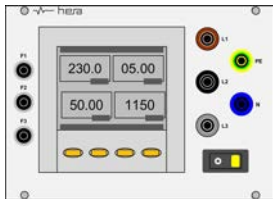
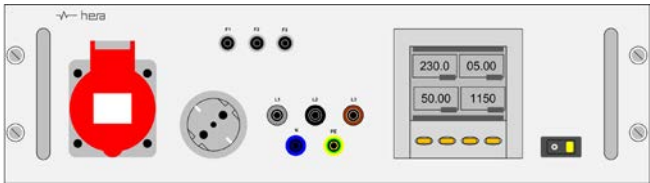
CEE Socket

340.242.502	19" Cassette without Switch (21TE)
340.242.302	19" Cassette with Switch + Socket (35TE)
331.202.302	19" Module without Switch (4HE)
331.202.352	19" Module with Switch (4HE)
331.203.302	19" Module without Switch + 2x Socket (7HE)
331.203.352	19" Module with Switch + 2x Socket (7HE)
341.203.302	19" Panel without Switch + 4x Socket (2HE)
341.203.352	19" Panel with Switch + 4x Socket (2HE)



19" PANEL WITH MUTLIMEASURING UNIT

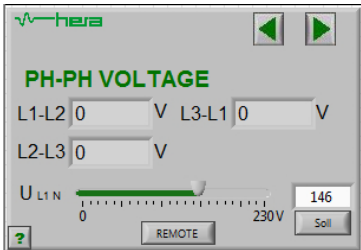
- The panel is for observation of voltage, current and power consumption of connected 3phase and 1phase AC consumers.
- Multifunctional graphical LCD display with four variably programmable displays and four control buttons.
- Optionally with USB interface in the front or LAN interface on the rear side.
- CEE socket straight 400V/ 16A, 6h, 5poles.
- 4mm safety jacks (L1, L2, L3, N and PE).
- Socket Type F in 45° position (others on demand).
- Illuminated 2poles switch with contactor.



Panel with Multimeasuring Unit		34	S	.389.51	R
S	System	R	Version		
0	19" Cassette 35TE	2	no Interface		
1	19" Panel 3HE	7	USB Interface		
		8	LAN Interface		

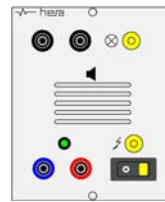
Technical Data of Multimeasuring Unit:

- Instrument 96 x 96mm with graphic LCD display 128 x 80 pixel and 4x control buttons.
- Voltage TRMS (phase -, system - and line-to-line voltages); accuracy: $\pm 0,2\%$.
- Phase current TRMS (calculated neutral); accuracy: $\pm 0,2\%$.
- Power (effective -, reactive -, apparent power per phase and in total); accuracy: $\pm 0,5\%$ v. EW.
- Power factor (per phase and in total); accuracy: $\pm 0,5\%$.
- Frequency (frequency of measured voltage); accuracy: $\pm 0,05\%$.
- HIGH and LOW value of actual voltage, current, power, power factor and frequency.
- Total harmonic distortion of voltages and currents.
- Harmonic analyses of voltage and current up to the 31th harmonic wave.
- Counter for active -, reactive - and apparent energy (partial and total counter with programmable tariff functions).
- Hour counter (programmable counter for total and service hours).



19" CASSETTE CONTINUITY TESTER

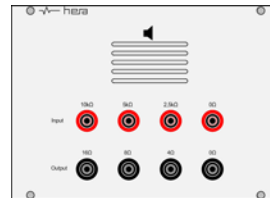
- High ohmic, electronic continuity tester, poled.
- Resistance range: 0...200k Ω with acoustic signalling (sound alternation with changing resistance).
- External voltage protection and status light.
- Electric continuity tester for low ohmic tests with 24V_{AC} with status light.
- Output on 4mm safety jacks.
- Illuminated 2poles switch.



380.020.202 Continuity Tester 21TE

19" CASSETTE WITH TEST SPEAKER

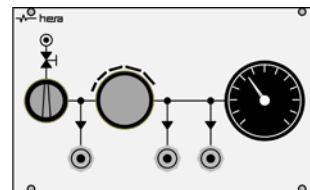
- Test speaker 10Watt / 8 Ω . (transmission range: 130-20.000Hz).
- Upstream connected transmitter for impedance matching (transmission range: 40-20.000Hz); primary winding: 2k Ω / 4k Ω / 8k Ω / 16k Ω . secondary: 4 Ω / 8 Ω / 16 Ω .
- Connection at 4mm safety jacks.



380.090.302 Test Speaker 35TE

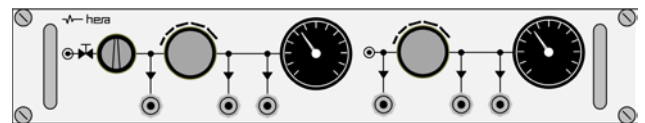
19" CASSETTE WITH PRESSURED AIR SUPPLY

- Shut-off valve.
- Self-closing quick release coupler 4/6 (unregulated).
- Pressure regulator with analogue pressure gauge.
- Two self-closing quick release coupler (regulated).
- Completely hoses with open end hose 4/6.



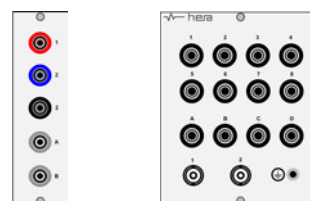
Pressured Air Supply

388.003.102	0 - 3bar 42TE
388.010.102	0 - 10bar 42TE
388.013.302	0 - 3bar + 0 - 10bar 2HE



19" MODULE WITH SELECTIVE POLES

The selective poles are applicable for educational labs with supply loop. Selective poles are unwired and need to be connected on site.



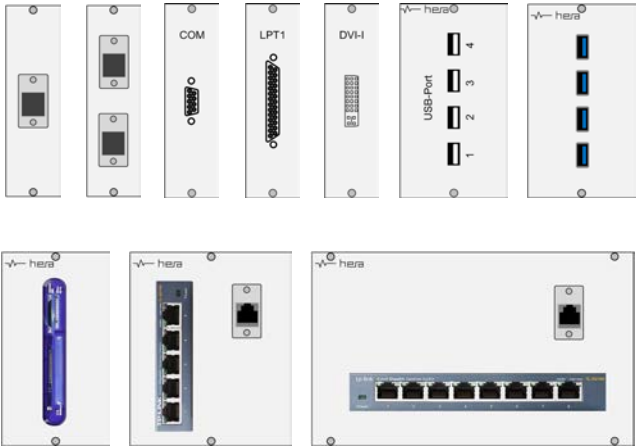
19" Module with Selective Poles

380.090.052	5x Safety Jacks 7TE
380.090.102	12x Safety Jacks + 2x BNC Jacks 21TE

19" MODULE WITH INTERFACES

Front panel integrated with interface plug and cable.

19" Modules with Interfaces	
340.614.402	1x Keystone Adapter 7TE
340.614.502	2x Keystone Adapter 7TE
340.615.102	1x Sub-D 9poles Male Connector for COM / RS232 7TE
340.615.302	1x Sub-D 25poles Female Connector for LPT 7TE
340.615.502	1x Sub-D 15poles Female Connector for VGA 7TE
340.615.702	1x DVI-I-Female Connector (Digital Visual Interface) 7TE
340.617.302	Active 4fold USB-Hub 2.0 incl. Power Supply 14TE
340.617.402	Active 4fold USB-Hub 3.0 incl. Power Supply 14TE
340.617.702	Card Reader USB 2.0 14TE
340.618.502	Gigabit Ethernet Switch 5 Port 0,5EP / 0,5MP
340.618.802	Gigabit Ethernet Switch 8 Port 0,75EP / 0,5MP with Keystone Adapter and Power Supply



KEYSTONE MODULE

- Individual configuration and flexibly exchangeable.
- Easy snap-in assembly in Keystone adapter.

Keystone Module	
330.800.000	Cover
330.810.100	RJ45 Coupler Cat. 5e
330.810.200	RJ45 Coupler Cat. 6a
330.810.3F0	RJ45 Coupler > LSA (displaced insulation) Cat.6 (F=0: black; 1: red; 2: green; 3: yellow; 4: blue)
330.810.400	RJ45 Coupler > LSA (displ. insul.) Cat.6 shielded
330.820.100	Fibre Optic Module LC Duplex Female > Female
330.820.200	Fibre Optic Module SC Simplex Female > Female
330.830.100	USB 2.0 A-Female > B-Female
330.830.300	USB 3.0 A-Female > B-Female
330.830.500	USB3.0 C Female > Male with Cable
330.830.600	USB Type-A Charging Socket 1a black
330.840.100	HDMI Female > HDMI Female black
330.840.300	mini Displayport Female > Male with Cable
330.850.100	Jack 3,5 mm Socket > Socket gold plated
330.850.2F0	Cinch Female > Cinch Female (0: yellow; 1: red; 2: white)
330.860.100	BNC Female > BNC Female black
330.860.200	F Female > F Female
330.860.300	IEC Female > F Female
330.860.400	IEC Male > F Female



19" SOLDERING STATION, ANALOGUE

- Professional Weller soldering station 24V/ 80W with electronic temperature control.
- Potentiometer for stepless adjustable temperature control between 150°C and 450°C with LED temperature indication.
- Antistatic soldering tool (24V/ 80W).
- Stand with sponge.
- Illuminated 2poles switch.
- Connector for soldering fume extraction.



Soldering Station, Analogue	
380.001.102	19" Cassette 21TE
380.253.102	19" Module 7HE

19" SOLDERING STATION DIGITAL

- Microprocessor controlled Weller soldering station with automatic soldering tool cognition.
- Stepless adjustable temperature control between 150°C and 450°C with up - and down button.
- 3digit LED digital display for actual - and set temperature.
- Antistatic soldering tool (24V/ 80W).
- Stand with sponge.
- Illuminated 2poles switch.
- Connector for soldering fume extraction.



Soldering Station, Digital	
380.001.602	19" Cassette 28TE
380.253.602	19" Module 7HE

19" SOLDERING STATION LCD

Microprocessor controlled Ersa soldering station with 3 preset temperatures and stepless adjustable temperature control.

- Electronic controlled soldering station, 80W.
- Stepless adjustable temperature control between 150°C and 450°C.
- LCD display for actual - and set temperature.
- Antistatic according to MIL-SPEC/ESA.
- Powerful fine soldering tool (9sec. pre-heating).
- Stand with sponge.
- Illuminated 2poles switch.



Soldering Station LCD	
380.001.702	19" Cassette 21TE
380.253.702	19" Module 7HE

19" **SOLDERING -/ DESOLDERING STATION, 2 CHANNELS**

- Universally applicable soldering/ desoldering station for professional repairs of electronic modules for manufacturing areas, service & repair stations or test facilities.
- The station has two tool-independant channels and automatic tool cognition with automatic activation of the suitable control parameters. Soldering and desoldering or hot air soldering can be done at once.
- Suitable for a great variety of Weller soldering tools up to 200W e.g. soldering -, desoldering - and hot air pencil.
- Integrated rotary pump for vacuum and airflow (max. vacuum 0,7bar; max. airflow 18l/min).
- Variably programmable buttons for repeating functions.
- LC display.
- EGB safe.
- ECO button.
- Temperature control: 50°C – 550°C.



Soldering - Desoldering Station, 2 Channels	
380.001.502	19" Cassette 42TE
341.254.102	19" Panel 2HE

Accessory for Soldering - Desoldering Station	
380.000.100	Soldering Set 80 Watt (leadfree soldering) (Soldering Tool WP80, Safety Stand)
380.000.200	Soldering Set 120 Watt (Soldering Tool WP120, Safety Stand)
380.000.300	Desoldering Set 80 Watt (leadfree soldering) (Desoldering Tool, Safety Stand, Cleaning Set)
380.000.400	Desoldering Set 120 Watt (Desoldering Tool, Safety Stand, Cleaning Set)
380.000.500	Hot Air Set 100 Watt (Hot Air Pencil, Safety Stand, Nutdriver for Nozzle Change)



Soldering Set



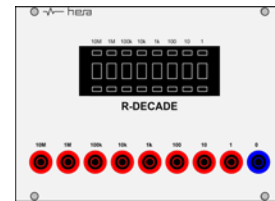
Sesoldering Set



Hot Air Set

19" MODULE R-DECADE

- 8x decade switches with following precision resistors:
1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ,
1MΩ, 10MΩ.
- Accuracy: 0,1% + 100mΩ.
- Max. voltage: 200V AC; max. current: 0,5A.
- 9 x 4mm safety jacks for resistance tap.

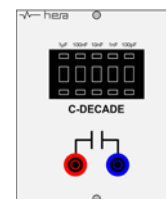


380.002.102

R-Recade 35TE

19" MODULE C-DECADE

- 8x decade switches with following precision capacitors: 100pF, 1nF, 10nF, 100nF, 1μF.
- Accuracy: 0,1% + 75pF.
- Max. voltage: 200V AC; max. current: 0,5A.
- 2 x 4mm safety jacks for capacity tap.

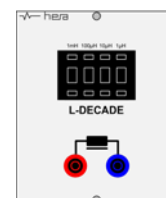


380.002.202

C-Decade 21TE

19" MODULE L-DECADE

- 4x decade switches with following precision coils: 1μH, 10μH, 100μH, 1mH.
- Max. voltage: 100V.
- 2 x 4mm safety jacks for inductivity tap.



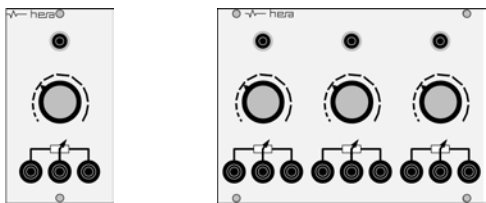
380.002.302

L-Decade 21TE



19" MODULE WITH LOAD RESISTORS

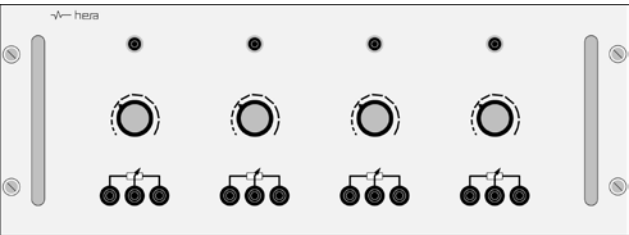
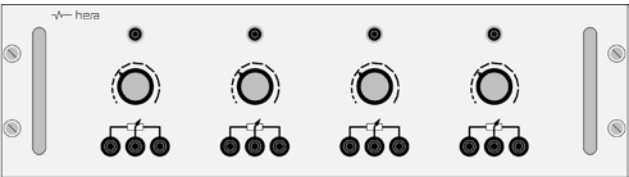
- Stepless adjustable load resistance 50W (test voltage: 2,5kV).
- Thermal circuit breaker for overload protection.
- Connection at 3x 4mm safety jacks.



Load Resistor	
380.005.102	0 - 10Ω / 2,2A 14TE
380.005.202	0 - 100Ω / 0,7A 14TE
380.005.302	0 - 1kΩ / 0,2A 14TE
380.005.402	0 - 10kΩ / 0,1A 14TE
380.005.002	3x Load Resistors 0 - 0,1 / 1 / 10kΩ 35TE

19" INSERTION LOAD RESISTORS

- 4x 50W
four stepless adjustable load resistors (test voltage: 2,5kV):
0 - 10Ω / 50W; 2,2A
0 - 100Ω / 50W; 0,7A
0 - 1kΩ / 50W; 0,2A
0 - 10kΩ / 50W; 0,1A
- or 4x 300W
four stepless adjustable load resistors (test voltage: 2,5kV):
0 - 10Ω / 5,4A
0 - 100Ω / 1,7A
0 - 1kΩ / 0,5A
0 - 10kΩ / 0,2A
- Thermal circuit breaker for overload protection.
- Each resistor with 2 end taps and one center tap at 4mm safety jacks.

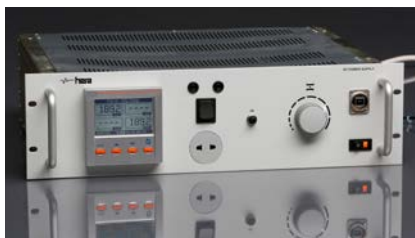


Load Resistors	
380.010.102	4x 50W 3HE
380.010.302	4x 300W 4HE



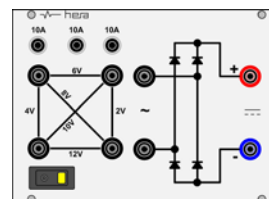
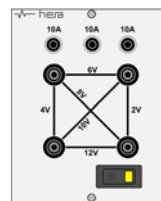
VARIABLE AC SOURCES

The adjustable AC sources are ideal for the simulation of mains alternations. Due to latest technology and great performance they are perfectly suitable for education, R&D and service departments. The galvanically isolated types offer high accuracy and a maximum of safety to its user.



19" CASSETTE AC LOW VOLTAGE, 1PHASE

- Isolating transformer with floating 10A outputs, pluggable for 2V, 4V, 6V, 8V, 10V or 12V.
- Protected by front side operated thermomagnetic fuses.
- Output at 4mm safety jacks.
- Pluggable bridge rectifier via 4mm safety jacks.
- Illuminated 2poles switch.

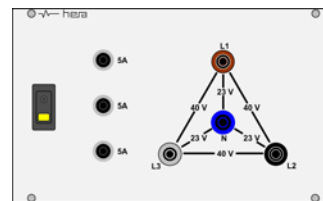


AC Low Voltage, 1phase

342.012.102	no Bridge Rectifier 21TE
342.012.202	with Bridge Rectifier 35TE

19" CASSETTE AC LOW VOLTAGE, 3PHASE

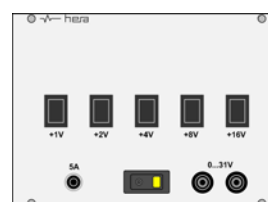
- 3phase isolating transformer 345VA for floating 3phase voltage of 23V/ 40V.
- Protected by front side operated thermomagnetic fuses.
- Output at 4mm safety jacks.
- Illuminated 2poles switch with contactor.



342.323.002	AC Low Voltage, 3phase 42TE
-------------	-----------------------------

19" CASSETTE AC LOW VOLTAGE

- Isolating transformer for 1V, 2V, 4V, 8V, 16V/ 5A. Protected by front side operated thermomagnetic fuse.
- 5x switch for voltage setting, thus the voltage can be adjusted between 0 ... 31V in 1V steps.
- Output at 4mm safety jacks.
- Illuminated 2poles switch.

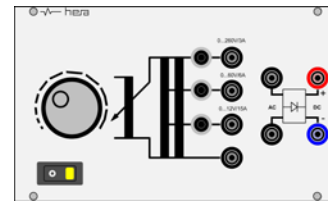


342.031.102	AC Low Voltage 35TE
-------------	---------------------



19" CASSETTE VARIABLE AC SOURCE 0 - 260V/ 3A

- 1x variac with down stream connected isolating transformer for floating voltage of 0...260V/ 3A, 0...60V/ 6A and 0...12V/ 15A.
- Protected by front side operated thermomagnetic fuses.
- Output at 4mm safety jacks.
- Bridge rectifier pluggable at 4mm safety jacks.
- Illuminated 2poles switch.



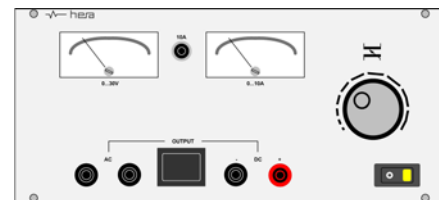
342.026.102 Variable AC Source 0 - 260V/ 3A 42TE

19" CASSETTE VARIABLE AC/DC SOURCE, 1PHASE

- Variac with downstream connected isolating transformer for floating output voltage of 0 - 100%. Protected by front side operated thermomagnetic fuse.
- Switchable bridge rectifier for a pulsating DC voltage with 48% ripple.
- AC - and DC output at 4mm safety jacks.
- Current - and voltage reading analogue: moving iron class 1,5 digital: 3digit LED display TrueRMS, accuracy: 0,5% +/-1 digit.
- Illuminated 2poles switch.

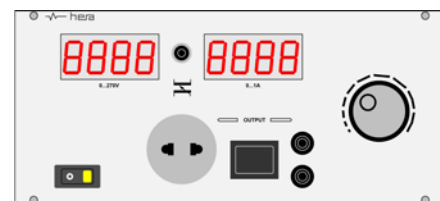
Variable AC/DC Source, 1phase

346.033.202	0-30V / 10A analogue 56TE
346.053.202	0-50V / 3A analogue 56TE
346.271.202	0-270V / 1A + 0-60V / 4A analogue 63TE
346.271.602	0-270V / 1A + 0-60V / 4A digital 63TE
346.273.202	0-270V / 3A + 0-60V / 10A analogue 70TE
346.273.602	0-270V / 3A + 0-60V / 10A digital 70TE



19" CASSETTE VARIABLE AC SOURCE, 1PHASE

- 1x variac with downstream connected isolating transformer for floating output voltage of 0-100%. Protected by front side operated thermomagnetic fuses.
- Output selector for 4mm safety jacks or universal socket (Type F, E, NEMA) without protective earth.
- Current - and voltage reading analogue: moving iron class 1,5 digital: 3digit LED display TrueRMS, accuracy: 0,5% +/-1 digit.
- Illuminated 2poles switch.



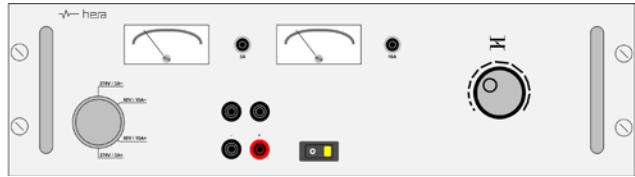
Variable AC Source, 1phase

342.271.202	0-270V / 1A analogue 63TE
342.271.602	0-270V / 1A digital 63TE
342.273.202	0-270V / 3A analogue 63TE
342.273.602	0-270V / 3A digital 63TE



19" INSERTION AC/DC SOURCE, 1PHASE

- Variac with downstream connected isolating transformer for floating output voltage of 0 - 100%.
- Protected by front side operated thermomagnetic fuse.
- Switchable bridge rectifier for a pulsating DC voltage with 48% ripple.
- AC - and DC output at 4mm safety jacks.
- Current - and voltage reading
analogue: moving iron class 1,5
digital: 3digit LED display TrueRMS,
accuracy: 0,5% +/-1 digit.
- Illuminated 2poles switch.

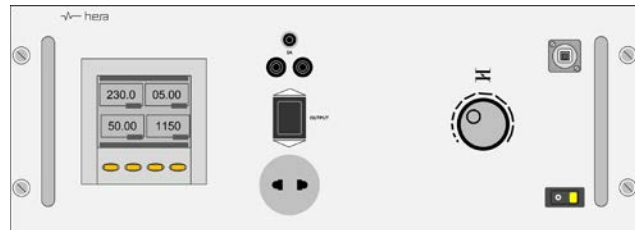
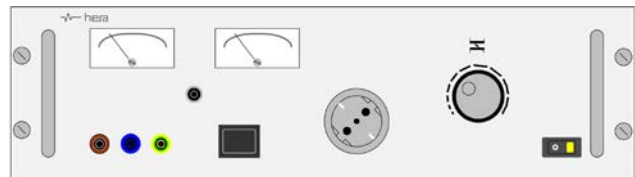


AC/DC Source, 1phase

346.273.102	0-270V / 3A + 0-60V / 10A, analogue 3HE
346.273.502	0-270V / 3A + 0-60V / 10A, digital 3HE
346.275.102	0-270V / 3A analogue 4HE
346.280.102	0-270V / 10A analogue 4HE

19" INSERTION AC SOURCE, 1PHASE

- Variac with downstream connected isolating transformer (floating version) for an output voltage of 0 - 100%.
- Protected by front side operated thermomagnetic fuse.
- NON floating version:
Selector for output with 3x 4mm jacks or PE socket, type F (others on demand).
- FLOATING version:
Selector for output with 2x 4mm safety jacks or universal socket (Type F, E, NEMA) without PE contact.
- Current - and voltage reading:
 - analogue: moving iron class 1,5
 - digital: 3digit LED displays TrueRMS, accuracy: 0,5% +/-1 digit.
 - multifunctional display (MFD, optionally with USB or LAN interface.
- Illuminated 2poles switch.



AC Source, 1phas

342. SSS. A 04

SSS Voltage / Current

233	0-230V / 3,2A 3HE non-floating	273	0-270V / 3A 3HE FLOATING
236	0-230V / 6,3A 4HE non-floating	275	0-270V / 5A 4HE FLOATING
242	0-230V / 12A 4HE non-floating	280	0-270V / 10A 4HE FLOATING
246	0-230V / 16A 4HE non-floating	282	0-270V / 12A 4HE FLOATING
		301	0-300V / 10A 4HE FLOATING
		286	0-270V / 16A 7HE FLOATING (requires 3phase supply)
		306	0-300V / 16A 7HE FLOATING (requires 3phase supply)

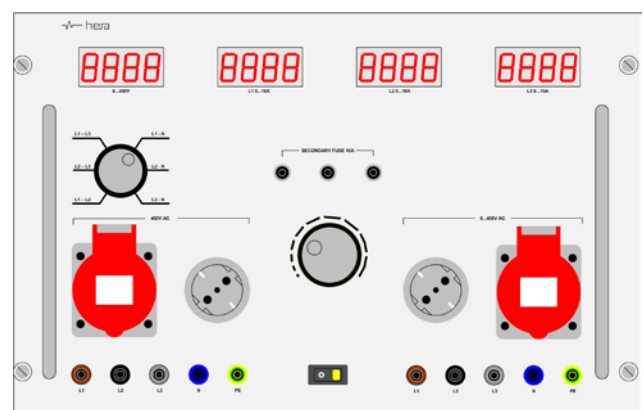
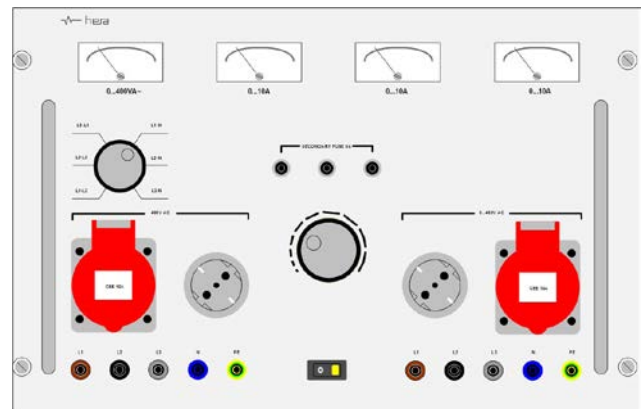
A Reading

1	analogue
5	digital
6	Multifunctional Display (MFD)
7	MFD with USB
8	MFD with LAN

19" INSERTION AC SOURCE, 3PHASE

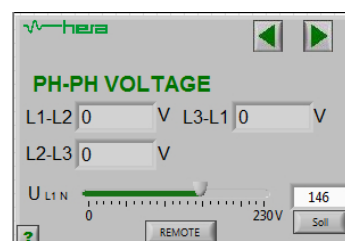
- Star connected 3phase variac for an output voltage of 0 - 100%.
- Option FLOATING: downstream connected isolating transformer for galvanically isolated output voltage.
- Inrush current limiter with primary fuse.
- Front side operated thermomagnetic fuses for output protection.
- Voltage reading with measuring point selector and 3x current readings L1, L2 and L3.
 - analogue: moving iron class 1,5
 - digital: 3digit LED displays TrueRMS
 - multifunctional display (MFD, optionally with USB or LAN interface).
- Output at 1x CEE socket, straight 400V/16A, 6h red or 690V/16A 5h black, 5x 4mm safety jacks (L1, L2, L3, N, PE) and PE socket (type F, others on demand).

AC Source, 3phase		343.SSS . A 02
SSS Power	A Display	
335 0-400V / 3A 7HE	1 analogue	
336 0-400V / 3A, FLOATING 7HE	5 digital	
455 0-450V / 5A 7HE	6 Multifunctional Display	
456 0-450V / 5A, FLOATING 7HE	7 MFD with USB	
460 0-400V / 10A 7HE	8 MFD with LAN	
461 0-400V / 10A, FLOATING 7HE		
557 0-520V / 7A, FLOATING 7HE		
561 0-520V / 10A, FLOATING 7HE		
558 0-520V / 7A, FLOATING 7HE, CEE socket 5h black		
562 0-520V / 10A, FLOATING 7HE, CEE socket 5h black		



Technical Data Multifunctional Display:

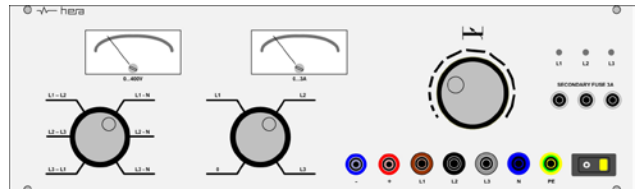
- Measuring instrument 96 x 96mm with graphic LCD display 128 x 80 pixel and 4x control buttons.
- Voltage TRMS (phase -, system - and line-to-line voltages); accuracy: $\pm 0,2\%$.
- Phase current TRMS (calculated neutral); accuracy: $\pm 0,2\%$.
- Power (effective -, reactive -, apparent power per phase and in total); accuracy: $\pm 0,5\%$ v. EW.
- Power factor (per phase and in total); accuracy: $\pm 0,5\%$.
- Frequency (frequency of measured voltage); accuracy: $\pm 0,05\%$.
- HIGH and LOW value of actual voltage, current, power, power factor and frequency.
- Total harmonic distortion of voltages and currents.
- Harmonic analyses of voltage and current up to the 31th harmonic wave.
- Counter for active -, reactive - and apparent energy (partial and total counter with programmable tariff functions).
- Hour counter (programmable counter for total and service hours).



19" CASSETTE VARIABLE AC/DC SOURCE, 3PHASE

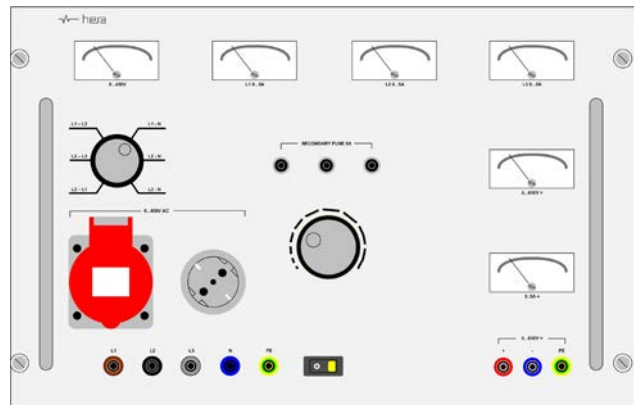
- 3phase variac for a non-floating output voltage of 0 - 400V. Protected by front side operated thermomagnetic fuse.
- AC/DC source with 6-point rectifier for a pulsating DC voltage with 4,3% ripple.
- Output at 4mm safety jacks.
- Current - and voltage reading with phase selector.
 - analogue: moving iron class 1,5
 - digital: 3digit LED display TrueRMS, accuracy: 0,5% +/-1 digit.
- Illuminated 2poles switch with contactor.

AC/DC Source, 3phase	
348.401.102	AC Source 0-400V / 1A analogue 70TE
348.401.602	AC Source 0-400V / 1A digital 70TE
348.403.102	AC/DC Source 0-400V / 3A analogue 84TE
348.403.602	AC/DC Source 0-400V / 3A digital 84TE



19" INSERTION AC/DC SOURCE, 3PHASE

- 3phase variac in star connection for an output voltage of 0 - 100%. Protected by front side operated thermomagnetic fuse.
- Option FLOATING: downstream connected isolating transformer for galvanically isolated output voltage.
- 1x CEE socket, straight 400V/ 16A, 6h, red or 690V/16A 5h black.
- 5x 4mm safety jacks (L1, L2, L3, N, PE).
- 1x PE socket, type F (others on demand).
- Voltage reading with measuring point selector and 3x current readings L1, L2 and L3.
 - analogue: moving iron class 1,5
 - digital: 3digit LED displays TrueRMS accuracy: 0,5% +/-1 digit.
- 6-point rectifier (ripple 4,3%) with displays for DC voltage and DC current.
- 4mm safety jacks for the adjustable DC voltage supply (factor 1,35 of AC voltage).
- Illuminated 2poles switch with contactor.



AC/DC Source, 3phase		347.LLL.A.02	7HE
LLL Power		A Reading	
335	0-400V / 3A, non-floating	461	0-400V / 10A, FLOATING
336	0-400V / 3A, FLOATING	557	0-520V / 7A, FLOATING
455	0-450V / 5A, non-floating	561	0-520V / 10A, FLOATING
456	0-450V / 5A, FLOATING	558	0-520V / 7A, FLOATING 7HE with CEE Socket 5h black
460	0-400V / 10A, non-floating	562	0-520V / 10A, FLOATING 7HE with CEE Socket 5h black

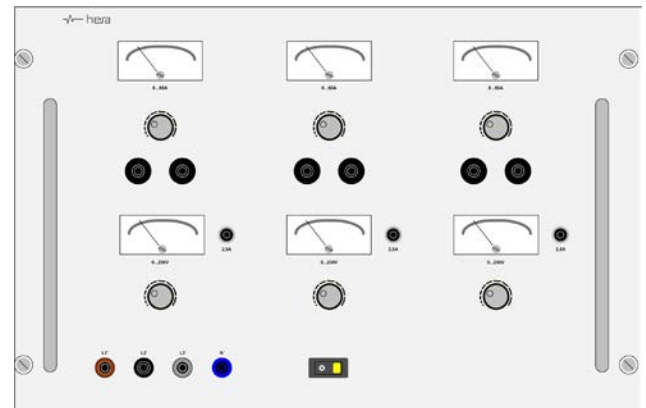
19" INSERTION METER TESTER

Voltage Generator:

- 3x individually adjustable variacs for floating voltage output of 0 - 230V/ 2,5A.
- Protected by front side operated thermomagnetic fuse.
- Output at 4x 4mm safety jacks (L1, L2, L3, N).
- 3x analogue voltage readings (moving iron class 1,5).

Current Generator:

- 3x individually for floating current output of 0 - 60A/ 6,6V.
- Output at 6x 4mm safety jacks (L1-L1', L2-L2', L3-L3').
- 3x analogue current readings (moving iron class 1,5).
- Illuminated 2poles switch with contactor.



353.260.102

Meter Tester 7HE

19" INSERTION MOTOR TESTER WITH VARIAC

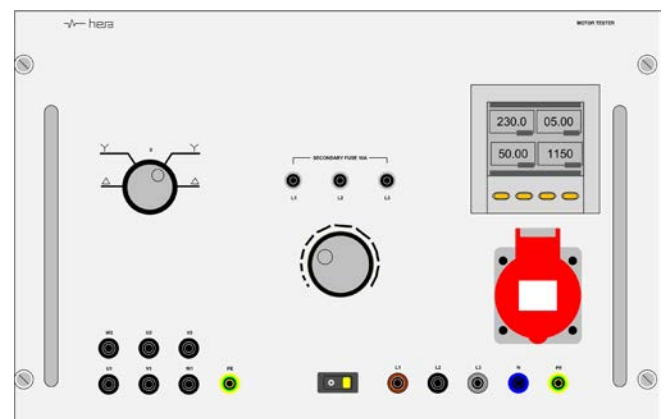
- 3phase variac for non-floating output voltage of 0 – 400V/ 10A.
- Protected by front side operated thermomagnetic fuses.
- 7x 4mm safety jacks arranged as motor terminal board (U1, U2, V1, V2, W1, W2 and PE).
- Selector switch for start - delta and rotation direction.
- Extra outputs with 4mm safety jacks (L1, L2, L3, N, PE) and CEE socket, straight 400V/ 16A, 6h, 5poles.
- Illuminated 2poles switch with contactor.

Analogue Readings:

- 1x voltage reading with measuring point selector and 3x current readings (moving iron class 1,5).

Multifunctional Display (MFD):

- Graphical LLLCD display for the simultaneous indication of four freely programmable values.
- Phase voltages and currents TRMS.
- Power (effective-, reactive - and apparent power, per phase and total).
- Power factor per phase and in total.
- Frequency.
- HIGH - and LOW values.
- Harmonic distortion of voltages and currents.
- Harmonic analysis for voltage and current.
- Counter for effective -, reactive - and apparent energy.
- Hour counter.



Motor Tester with Variac 0-400V/ 10A

7HE

385.381.102 with Analogue Readings

385.381.602 with Multifunctional Display

385.381.702 with Multifunctional Display and USB Interface

385.381.802 with Multifunctional Display and LAN Interface

19" INSERTION **MOTOR TESTER** FOR EXTERNAL VARIAC

- Rocker switch for the stepless adjustment of the external variac.
- 7x high current jacks arranged as motor terminal board (U1, U2, V1, V2, W1, W2 and PE).
- Selector switch for start - delta and rotation direction.
- More outputs with high current jacks (L1, L2, L3, N, PE) and CEE sockets.

Analogue Readings:

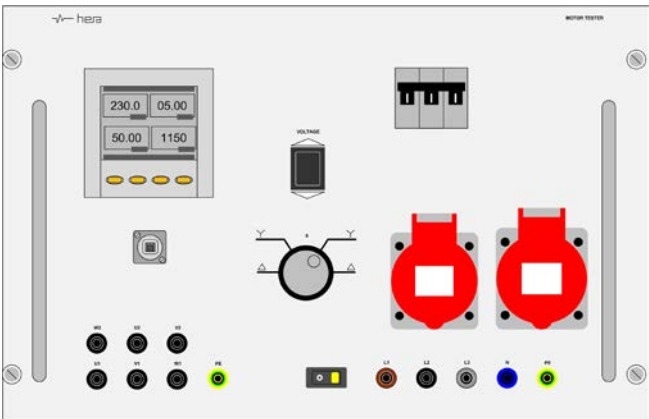
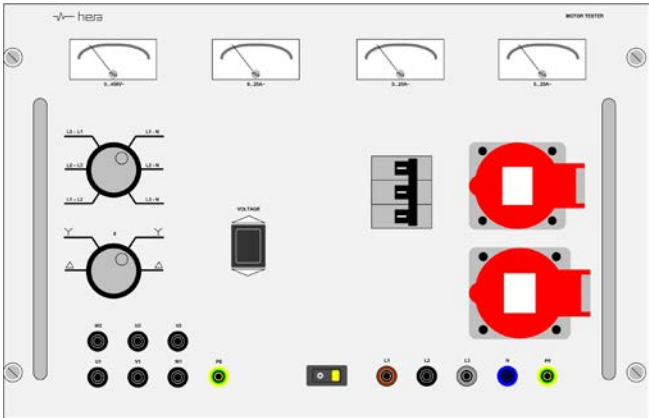
- 1x voltage display with selector switch for measuring points and 3x current readings (moving iron class 1,5).

Digital Displays:

- 1x voltage display with selector switch for measuring points and 3x current display (3digit LED display; TrueRMS; accuracy: 0,5% +/-1 digit).

Multifunctional Display:

- Graphical LCD display for the simultaneous indication of 4 freely programmable values.
- Phase voltage and phase current TRMS.
- Power (effective -, reactive - and apparent power per phase and in total).
- Power factor per phase and in total.
- Frequency.
- HIGH and LOW values.
- Harmonic distortion of voltages and currents.
- Harmonic analysis of voltage and current.
- Counter for effective -, reactive - and apparent energy.
- Hour counter.



Motor Tester		385.3 SS A 02	7HE
SS Current		A Reading	
82	25A	1	analogue
84	40A	5	digital
86	60A	6	Multifunctional Display
99	100A	7	MFD with USB Interface
		8	MFD with LAN Interface

EXTERNAL VARIAC FOR MOTOR TESTER

- Sheet steel housing with casters, two with brakes.
- Integrated motor driven 3phase variac with inrush current limiter.
- Input terminal block and primary fuse.
- Transfer terminal to motor tester and RCD.

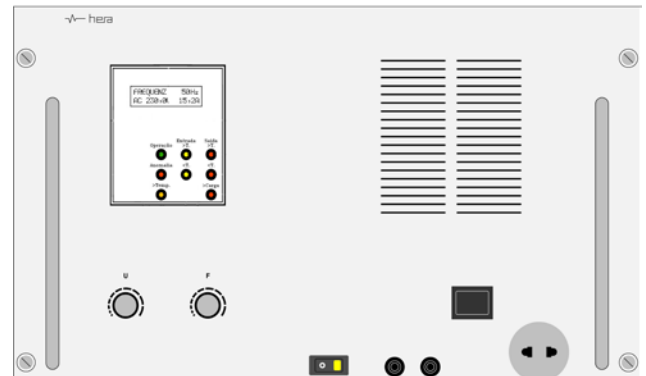
External Variac for Motor Tester	
285.516.100	0 - 400V / 16A
285.525.100	0 - 400V / 25A
285.540.100	0 - 400V / 40A
285.550.100	0 - 400V / 50A
285.560.100	0 - 400V / 60A
285.599.100	0 - 400V / 100A



19" INSERTION SINUS FREQUENCY CONVERTER 1PHASE 60HZ

Microcontroller operated sinus frequency converter for floating voltage with variable output. Status-LED field and alphanumeric LCD display.

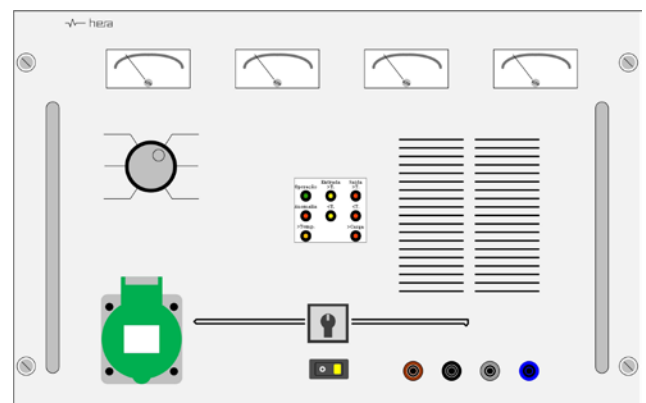
- Sinus source, galvanically isolated from input
THD-U: 2-3% at 100% ohmic load.
- Power: 100% duration $\cos \phi$ 0,8m 120% for 3-5min.
- Adjustable output voltage 100V - 250V,
stability: $\pm 1,5\%$.
- Adjustable frequency 47Hz at 63Hz (sinus),
stability: $\pm 0,1\%$.
- Text display for voltage, current and frequency.
- Short circuit proofed with automatic switch off.
- 8 status LEDs (indication for AC voltage, AC
overvoltage, AC overload).
- Output selector for 4mm sockets and universal socket
(Type F, E, NEMA).
- Illuminated 2poles switch.



Sinus Frequency Converter 1phase 60Hz 7HE	
355.063.202	Output 800VA (3,0A)
355.066.202	Output 1500 VA (6,0 A)

19" INSERTION SINUS FREQUENCY CONVERTER 3PHASE 400HZ

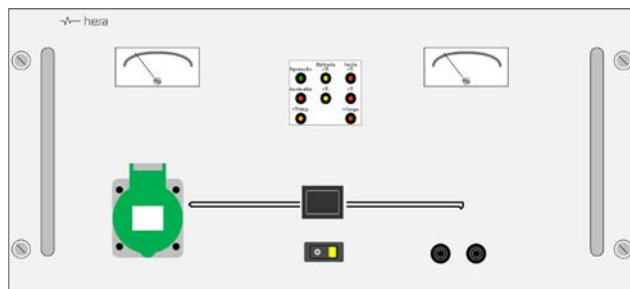
- Microcontroller operated 3phase sinus frequency converter for floating voltage.
- 3x sinus sources; galvanically isolated from input
THD-U: 2-3% at 100% ohmic load.
- Power: 100% duration $\cos \phi$ 0,8; 120% for 3-5min.
- Output power: 3x 500VA.
- Output voltage: 3x 115/200 V; stability: $\pm 1,5\%$.
- Output frequency: 400Hz (sinus); stability: $\pm 0,1\%$.
- Analogue voltage reading with measuring point selector.
- 3x analogue current readings (L1, L2 and L3).
- Short circuit proofed with automatic switch off.
- 8 status LEDs (indication for AC voltage, AC
overvoltage, AC overload).
- Output selector between 4mm safety jacks and CEE
socket 2h 5poles.
- Illuminated 2poles switch with contactor.



356.406.202	Sinus Frequency Converter 3phase 400Hz 7HE
-------------	--

19" INSERTION **SINUS FREQUENCY CONVERTER 1PHASE 400HZ**

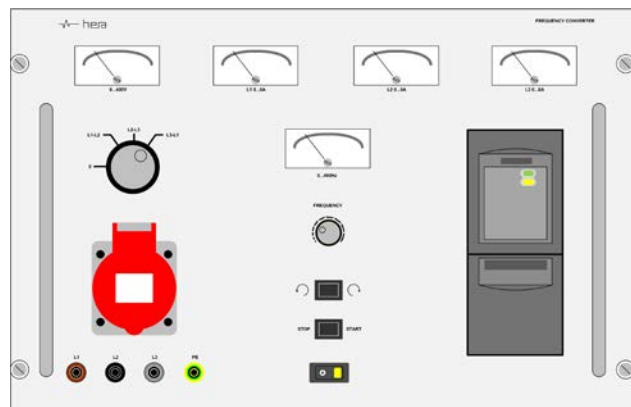
- Microcontroller operated 1phase sinus frequency converter for floating voltage.
- Sinus sources; galvanically isolated from input THD-U: 2-3% at 100% ohmic load.
- Power: 100% duration $\cos \phi$ 0,8; 120% for 3-5min.
- Output power: 500VA.
- Output voltage: 115V; stability: $\pm 1,5\%$.
- Output frequency: 400Hz (sinus); stability: $\pm 0,1\%$.
- 2x analogue readings for voltage and current.
- Output selector between 4mm safety jacks and CEE socket 2h 5poles.
- Short circuit proofed with automatic switch off.
- 8 status LEDs (indication for AC voltage, AC overvoltage, AC overload).
- Illuminated 2poles switch.



355.406.202 Sinus Frequency Converter 1phase 400Hz 5HE

19" INSERTION **MOTOR TESTER WITH FREQUENCY CONVERTER**

- Menu-driven vector frequency converter 0 - 400Hz (max. 650Hz).
- Frequency adjustment via 10turn potentiometer.
- Switch for rotary field selection.
- 4x 4mm safety jacks (L1, L2, L3, PE).
- CEE socket, red, straight 400V/ 16A, 6h, 5poles.
- Analogue voltage readings, class 1,5 with measuring point selector.
- 3x analogue current reading (L1, L2, L3) class 1,5.
- Illuminated 2poles switch with contactor.

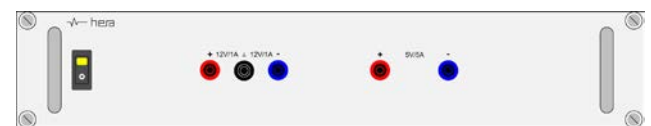
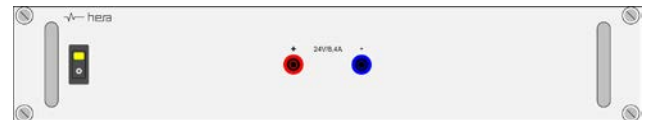
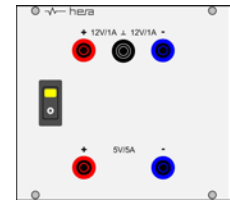
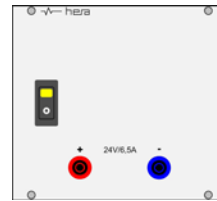


356.400.102 Motor Tester with Frequency Converter 7HE



19" DC SOURCE - FIXED VOLTAGE

- Stabilized and short circuit proofed DC power supply, galvanically isolated.
- Overload -, overvoltage - and overtemperature protected.
- Offset, approx. 2%.
- Ripple: approx. 120mV p-p.
- Output on 4mm safety jacks.
- Illuminated 2poles switch (primary).

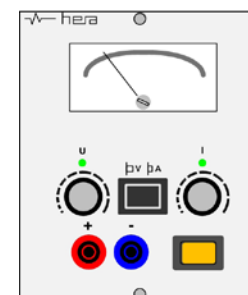


DC Source - Fixed Voltage		368.	AAA	AA	S
AAA	AA	Type	S System		
105.05	5V / 5A	14 TE	2	19" Cassette	
105.10	5V / 10A	21TE	5	19" Module 7HE	
112.03	12V / 3A	14TE	6	19" Panel 2HE	
112.06	12V / 6A	21TE			
112.12	12V / 12,5A	28TE			
113.11	13,5V / 11,2A	28TE			
124.03	24V / 3,2A	21TE			
124.08	24V / 8,4A	28TE			
148.02	48V / 2,3A	21TE			
148.04	48V / 4,2A	28TE			
212.03	+ 12V / 3A + 5V / 6A	28TE			
224.02	+ 24V / 2A + 5V / 6A	28TE			
312.01	+/- 12V / 1A + 5V / 5A	14TE			
315.01	+/- 15V / 0,8A + 5V / 5A	14TE			



19" CASSETTE ADJUSTABLE DC SUPPLY COMPACT 0...30V / 0...2A

- Linear controlled, earthfree and short circuit proofed laboratory power supply.
- Potentiometer for voltage and current adjustment and status LED.
- Output on 4mm safety jacks.
- Offset: < 0,05%.
- Ripple: < 1mV eff.
- Selector switch for analogue reading class 1,5 (voltage or current).



380.810.202

Adjustable DC Supply Compact 21TE

LAB POWER SUPPLIES FOR EACH APPLICATION

hera Lab Power Supplies are characterized by following features:

- intuitive operating concept with fine-pitch rotary switch and buttons for fast and precise settings
- all values at a glance with background illuminated graphical display
- remote accessible due to USB - and LAN interface
- operating software (IMODdesktop) with arbitrary - and recording function

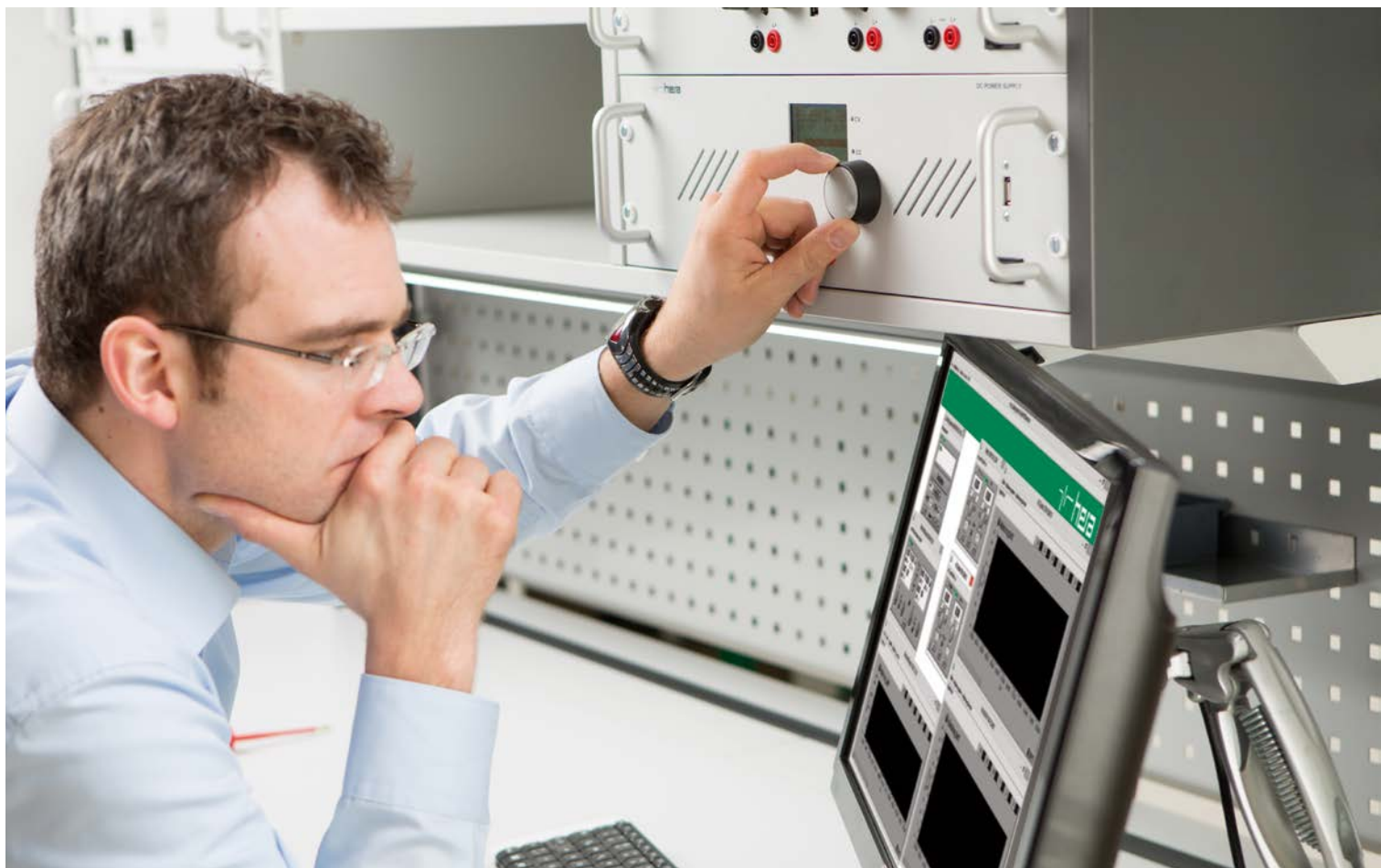
The ideal DC source due to two types of power supplies:

Lab Power Supply EXTEND RANGE:

- powerful switch-mode controlled power supply with ripple < 5mV
- extended voltage - and current range up to max. power

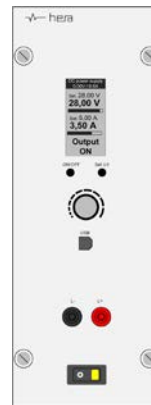
Lab Power Supply LINEAR:

- classic linear controlled lab power supply with ripple < 1mV
- power ranges 60 - 300W



19" LAB POWER SUPPLY ICOM LINEAR

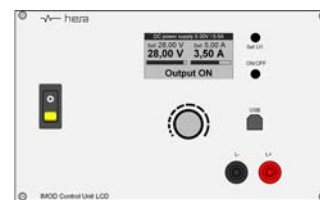
- Background illuminated graphic LCD display 60x30mm (128x64) for a simultaneous indication of all important values and modes.
- Rotary switch with pushbutton function for a fast and precise setting of voltage and current.
- Extra buttons for fast and intuitive operation.
- Output ON -/ OFF button with status indication in display.
- Double power supply with easy selection between 2-channel -, tracking -, series - and parallel mode.
- Outputs on 4mm safety jacks.
- Illuminated 2poles switch.
- Front side with USB -, rear side with LAN interface.
- LabView driver, compatible with software IMODdesktop and IMODmobile for remote operation.



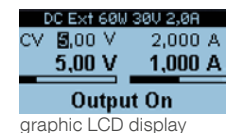
19" Module 7HE

LINEAR-Version:

- Linear controlled DC source with transformer switching.
- Silent running fan with temperature-controlled speed at 150W and 300W (60W type fanless).
- Measurement display: 14bit (16384 dots).
- Measurement resolution: 16Bit (65536 dots).
- Ripple (at $I_a = 50\%$): $<0,7\text{mV}_{\text{RMS}}$.
- Set time (load step 10-90% I_a , at 50% U_a): $<120\mu\text{s}$.
- External voltage protection: 100V / 50V (60W).



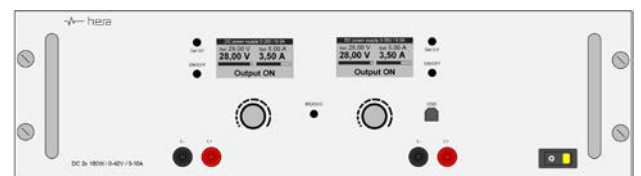
19" Cassette 1-channel



graphic LCD display

3-Channel Power Supply with fixed 5V / 5A:

- Stabilized and short circuit proofed fixed voltage supply, galvanically isolated.
- Overload -, overvoltage - and overtemperature protected.
- Offset: approx. 2%.
- Ripple: approx. 120mV p-p.
- Output on 4mm safety jacks.
- Illuminated 2poles switch (primary).



19" Insertion 2-channel

Lab Power Supply ICOM LINEAR

36 A LLL S 03

A Channels

- 1 1-Channel **42TE / 3HE**
- 2 2-Channel **63TE / 3HE**
- 3 3-Channel **only 3HE**

LLL Voltage / Current

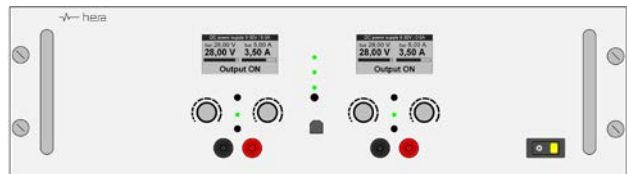
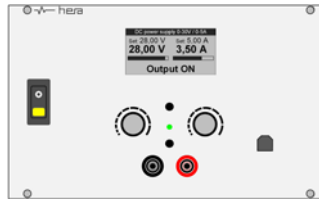
- 302 0 - 30V / 0 - 2A
- 305 0 - 30V / 0 - 5A
- 310 0 - 30V / 0 - 10A
- 605 0 - 60V / 0 - 5A

S System

- 1 19" Cassette
- 3 19" Module 7HE (only 1-channel)
- 4 19" Insertion

19" LAB POWER SUPPLY EXTENDED RANGE

- Background illuminated LCD display for the simultaneous 4digit display of voltage and current.
- Rotary switch for current and voltage adjustment in adjustable steps.
- Output ON -/ OFF button with mode indication in display.
- Double power supplies with easy selection between 2-channel -, tracking -, series - and parallel mode.
- Programmable operation lock and overvoltage - overcurrent protection.
- Output on 4mm safety jacks.
- Illuminated 2poles switch.
- Front sided USB interface for remote access, optionally with rear sided LAN interface.
- Incl. LabView driver and WinRemote software.



Technical Data:

- Fanless max. 160W.
- Stability at 0-100% load: <0,8%.
- Stability at 10% mains alternation: <0,02%.
- Ripple: <5mV_{RMS}.
- Set time 10-100% load: <1ms.
- Overvoltage protection: 0...46,2V.
- Accuracy: <0,2%.
- Nominal values of current and voltage adjust one another, so the max. power is not exceeded.

3-Channel Power Supply with fixed 5V / 5A:

- Stabilized and short circuit proofed fixed voltage supply, galvanically isolated.
- Overload -, overvoltage - and overtemperature protected.
- Offset: approx. 2%.
- Ripple: approx. 120mV p-p.
- Output on 4mm safety jacks.
- Illuminated 2poles switch (primary).



Lab Power Supply EXTENDED RANGE 36 **A** **LLL** **S** 02

A Channels	LLL Voltage/ Current	S System	V Interface
1 1-Channel 42TE / 3HE	406 100W / 0 - 42V / 0 - 6A	7 19" Cassette	2 USB
2 2-Channel 63TE / 3HE	410 160W / 0-42V / 0 - 10A	8 19" Insertion	7 USB / LAN
3 3-Channel only 3HE	420 320W / 0 - 40V / 0 - 20A		
	803 100W / 0 - 84V / 0 - 3A		
	805 160W / 0 - 84V / 0 - 5A		

19" HIGH POWER DC SOURCE 2HE

- 19" microcontroller operated laboratory power supply.
- Power controlled output stage (nominal values of current and voltage adjust one another, so max. power $P = U \times I$ is not exceeded).
- 2x rotary switch and 6x buttons for operation.
- Colored TFT display for indication of nominal -, actual values and operating mode.
- Rear sided USB - and LAN interface.
- Rear sided high current terminal clamp.
- Dimensions: 483 x 89 x 470mm (WxHxD).



Technical Data:

- Operating voltage: 90 - 264V (1000/1500W)
180 - 264V (3000W)
- Efficiency: max. 92%
- Ripple: 8mV_{RMS} (at 40 and 80V)
34mV_{RMS} (at 200V)
59mV_{RMS} (at 360V);
48mV_{RMS} (at 500V)
- Accuracy: < 0,1% of nominal value
- Voltage stability: < 0,05% of nominal value
at 0-100% load
- Set time: < 2ms
10-100% load
- Rise time 10-90%: max. 30 ms
- Dielectric strength: 2500V DC

NOTE: Customized bench rack depth required!

High Power DC Source 1000W	
365.100.040	0 - 40V / 0 - 40A
365.100.080	0 - 80V / 0 - 40A
365.100.200	0 - 200V / 0 - 15A
365.100.360	0 - 360V / 0 - 10A
365.100.500	0 - 500V / 0 - 6A

High Power DC Source 1500W	
365.150.040	0 - 40V / 0 - 60A
365.150.080	0 - 80V / 0 - 60A
365.150.200	0 - 200V / 0 - 25A
365.150.360	0 - 360V / 0 - 15A
365.150.500	0 - 500V / 0 - 10A

High Power DC Source 3000W	
365.300.040	0 - 40V / 0 - 120A
365.300.080	0 - 80V / 0 - 120A
365.300.200	0 - 200V / 0 - 50A
365.300.360	0 - 360V / 0 - 30A
365.300.500	0 - 500V / 0 - 20A

19" OUTPUT PANEL FOR HIGH POWER DC SUPPLY 1HE

- 2x isolated 4mm jacks fully wired to the high power DC supply.
- 2x sense 4mm safety jacks (min. 32A output current).
- LAN - / USB interface.
- Dimension: 483 x 44,45 x 100mm (WxHxD).



19" Output Panel 1HE > 32A with LAN Interface

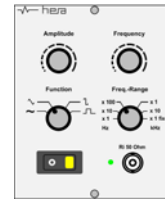


19" Output Panel 1HE max. 32A with USB Interface

19" Output Panel for High Power DC Supply		365.000. A I 2	1HE
A Output		I Interface	
5	4x 4mm Safety Jacks (max. 32A)	0	no Interface
6	2x 4mm Clamp (max. 64A) + Sense	2	USB Interface incl. Cable
7	2x 4mm Clamp (max. 200A) + Sense	6	LAN Interface CAT6 incl. Cable

19" CASSETTE FUNCTION GENERATOR COMPACT 200KHZ

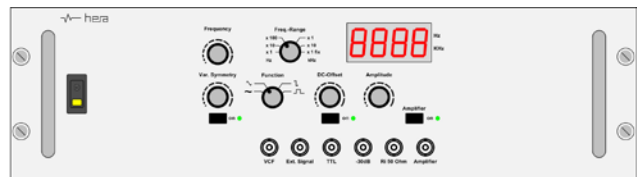
- Selector switch for waveforms: sinus, triangle, square, positive pulse.
- Selector for frequency range: x1Hz, x10Hz, x100 Hz, x1kHz, x10kHz and 1kHz fix.
- Potentiometer for stepless adjustment.
- Potentiometer for stepless amplitude adjustment between 0...20V_{ss}.
- Output at BNC sockets (Ri = 50Ω).



380.820.102 Function Generator Compact 200kHz 21TE

19" CASSETTE FUNCTION GENERATOR 1MHZ (POWER AMPLIFIER)

- Frequency adjustment at multiturn potentiometer.
- 6-position selector switch for frequency adjustment.
- Selector switch for waveform adjustment: sinus, triangle, square, external signal.
- Variable symmetry via potentiometer between 20%...80%.
- Amplitude adjustment via potentiometer between 0...30V ss (no-load operation).
- DC-Offset (zero shifting) between -10V...+10V.
- External voltage input (VCF) for frequency adjustment.
- 4digit LED display for frequency indication.
- 5x BNC sockets with ext signal input; TTL-output, 30dB output, 50W output.



Option Power Amplifier:

- Switchable in the range of 0,1Hz...100kHz.
- 40W_{eff} continuous power at sinus with 5Ω.
- Short-circuit proofed due to retracted current characteristic.
- Max. output voltage 40V_{ss}.

Function Generator 1MHz / Power Amplifier

371.653.102	Function Generator no Power Amplifier	42TE
371.653.202	Function Generator with Power Amplifier	42TE
371.653.002	Power Amplifier	28TE
372.653.202	Function Generator with Power Amplifier	3HE



19" DDS FUNCTION GENERATOR LC WITH POWER AMPLIFIER

The DDS sweep function generator offers a large variety of signals, it can be used for the generation of regular signals or as sweep generator for pulse signals.

- 6digit LED display.
- Operation with keys or stepless.
- 16x waveforms like sinus, square, triangle, ramp, pulse neg/pos. etc.
- 10 μ Hz frequency resolution.
- Total distortion: < 1%.
- Squared signal: < 50ns rise -/ fall time.
- Amplitude: 0 - 20Vpp (resolution: 5mVpp).
- Offset: +/- 10V.
- Modulation: FM, AM, PM, PWM, FSK.
- Modulation frequency: 40mHz - 20kHz.
- USB Interface.
- With 10W power amplifier.
- Safety: EN 61010-1; CAT II.

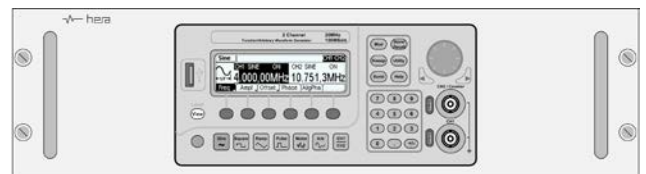
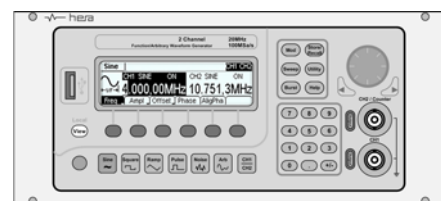


DDS Function Generator LC with Power Amplifier

371.656.302 3MHz (56TE)	371.656.202 20MHz (56TE)
372.656.302 3MHz (3HE)	372.656.202 20MHz (3HE)

19" FUNCTION GENERATOR ARBITRARY / 2-CHANNEL

- 2-channel arbitrary waveform generator with frequency counting and USB interface. Easy menu-navigation with graphic display.
- Waveforms: sinus, square, triangle, pulse, ramp, 48 defined output waves, variable arbitrary output forms, noise.
- Frequency range sinus 1 μ Hz - 20MHz, harmonic distortion <0.2%.
- Frequency range square 1 μ Hz - 5MHz, rise time <20ns.
- Frequency range triangle 1 μ Hz - 150kHz.
- Frequency range arbitrary 1 μ Hz - 5MHz, resolution 1 μ Hz.
- Waveform storage 4kpts.
- Impedance 50 Ω .
- Sweep function 1ms - 500s.
- Internal modulation AM/ FM/ PM/ FSK.
- Amplitude: 2mV_{pp} - 10V_{pp} (channel 1)/ 2mV_{pp} to 3V_{pp} (channel 2).
- Integrated frequency counter (200MHz).
- USB interface for data storage on PC or memory stick.
- Incl. LabView driver and user software.

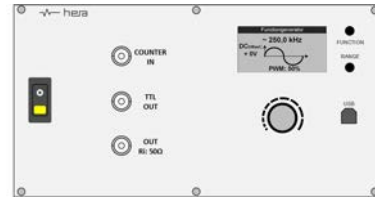


Function Generator Arbitrary / 2-Channel

371.660.702	19" Cassette 49TE
372.660.702	19" Insertion 3HE

19" FUNCTION GENERATOR ICOM

- Background illuminated graphic LCD display 60x30mm.
- Rotary switch with pushbutton function and 2 extra control buttons.
- 3x BNC sockets (COUNTER IN, TTL OUT, OUT Ri: 50 Ω).
- Waveforms: sinus, triangle, square, saw tooth, pulse, trapezium.
- Frequency range: 50mHz – 10 MHz (sinus), 50mHz – 1MHz (other signals).
- Arbitrary function with value table (comfortably used with IMODdesktop)
- Other functions: PWM, TTL output.
- Amplitude: $30V_{SS}$ (max. 1MHz), max. $3V_{SS}$ at 10MHz.
- Resolution: 12bit.
- Duty cycle: 0,1 % ... 99,9%.
- DC Offset: $\pm 7,5V$.
- Frequency measurement: max. 50MHz.
- Illuminated 2poles switch.
- Front side with USB -, rear side with LAN interface.
- LabView driver and operating software, compatible with IMODdesktop / IMODmobile for remote use.

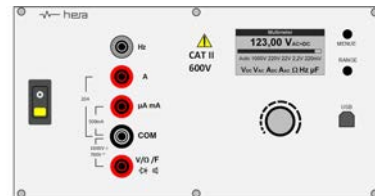


Function Generator ICOM

371.830.102	19" Cassette 49TE
372.830.102	19" Insertion 2HE

19" DIGITAL MULTIMETER ICOM

- Background illuminated graphic LCD display 60x30mm.
- Rotary switch with pushbutton function and 2 extra control buttons.
- 5x 4mm safety jacks (Hz, A, μA /mA, COM, V/ Ω /F/diode/continuity / temperature).
- Resolution: 4 3/4digits (50.000 counts).
- Voltage DC: $10\mu V$ – 1000V.
- Voltage AC TrueRMS: $10\mu V$ – 700V.
- Current DC: 10nA – 20A .
- Current AC TrueRMS: 10nA – 20A.
- Fuses for current inputs.
- Resistance: max. 50M Ω .
- Frequency: 100 μ Hz – 50MHz.
- Capacity: max. 5mF.
- Other functions: diode test, continuity test and temperature measurement.
- Range selection: manual or autoranging.
- Safety: CAT II 600V.
- Illuminated 2poles switch.
- Front side with USB -, rear side with LAN interface.
- LabView driver and operating software, compatible with IMODdesktop / IMODmobile for remote use.



604.000.100: Immersion Sensor -70 ... +250°C



604.000.200: Surface Sensor -190 ... +260°C



604.000.300: Kapton Sensor -190 ... +260°C

Digital Multimeter ICOM

371.710.602	Digital Multimeter ICOM (49TE)
372.710.602	Digital Multimeter ICOM (2HE)
604.000.100	Immersion Sensor -70 ... +250°C
604.000.200	Surface Sensor -190 ... +260°C
604.000.300	Kapton Sensor -190 ... +260°C

19" DIGITAL MULTIMETER LC2

- TrueRMS multimeter 6000digits with easy to read LC display and bargraph.
- Measuring range: manual and autoranging.
- Measuring range AC / DC Voltage: 600mV...1000V.
- Measuring range AC / DC Current: 600μA...10A (shortly up to 20A).
- Measuring range resistance: 600Ω...60MΩ.
- Measuring range capacity: 6nF...6mF.
- Measuring range inductivity: 600μH...100mH.
- Measuring range temperature: -40°C...1000°C.
- Measuring range frequency: 6kHz...60MHz.
- Continuity test, transistor -, thyristor - and diode test.
- Min./ max.- and hold function.
- CAT II 600 V.
- USB interface.
- Including measuring leads, temperature probe and operating software.



Digital Multimeter LC2

371.711.603	19" Insertion 3HE
372.711.603	19" Cassette 49TE

19" CASSETTE DIGITAL MULTIMETER COMPACT

- 4 1/2digit LED display with a digit height of 13mm.
- Functions: AC / DC voltage, AC / DC current and resistance.
- TrueRMS measurements.
- Range selection: manual with switches.
- Measuring cycle: approx. 2,5 measurements / sec.
- DC voltage: 200mV max. 1000V in 5 ranges (resolution: max. 10μV).
- DC current: 200μA max. 20A in 6 ranges (resolution: max. 10nA).
- AC voltage: 200mV max. 1000V in 5 ranges (resolution: max. 10μV).
- Resistance: 200Ω max. 20MΩ in 5 ranges (resolution: max. 10mΩ).
- Connection at 4mm safety jacks.
- Illuminated 2poles switch.



372.710.402

Digital Multimeter Compact 21TE

19" LCR METER 10HZ ... 2KHZ

- Test frequency range: 10Hz ...2kHz (accuracy: ± 0.01%, resolution: 4digits).
- Basic accuracy: 0.05%.
- Max. measuring cycle: 25ms.
- Combination of 16 main - and auxiliary parameter measurements and observation of two parameters. The display allows the simultaneous presentation of 4 parameter.
- Color LCD display: 8,9 cm-diagonal (3,5 inch).
- Standard interface: RS-232C and USB memory.

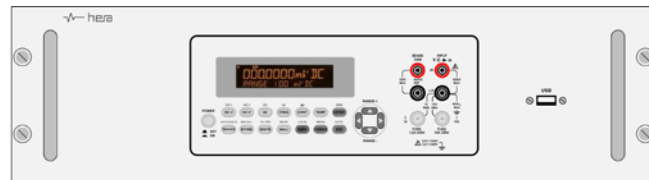
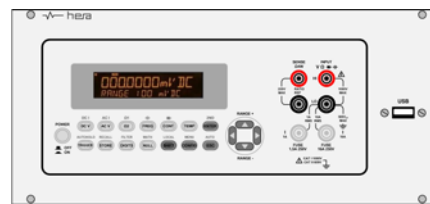


372.720.102

LCR Meter 2HE

19" PRECISION MULTIMETER USB

- Dual display for the simultaneous presentation of two separate measuring values.
- Resolution: 6 1/2 digits.
- 2-wire- / 4-wire-resistance measurement.
- 5000 measurements/ sec. at 4 1/2 digits.
- Integrated functions: DCI, DCV, ACI, ACV, 2WO, 4WO, frequency, period, diode, continuity test, limits, ratio, MX+B, %, dB, dBm, min./max. and zero.
- Different triggers.
- TrueRMS AC voltage - and AC current measurement.
- USB interface.
- Incl. LabView driver and user-software.



Precision Multimeter USB

371.711.402	19" Cassette 56TE
372.711.402	19" Insertion 3HE

19" PRECISION MULTIMETER LAN

- 5 3/4 digit display (480.000 dots).
- 3 simultaneous readings: z.B. DC + AC + statistics.
- Measuring cycle max. 200 measurings / sec.
- 0,015% basic accuracy (DC).
- 12 measuring functions: DCV, DCI, TrueRMS ACV and ACI, frequency, 2- and 4-wire-resistance, capacity, continuity, diode, temperature, power.
- Perfect readability due to brilliant color TFT display.
- Resolution 1μV, 100nA, 1mΩ, 1pF, 1Hz, 0,1°C.
- True effective measurement AC, AC+DC.
- Arithmetic functions: limit test, min./max., average, offset, DC power, dB, dBm.
- Temperature measurement with platinum sensors (PT100/ PT500/ PT1000).
- Data logging as .CSV file internally or on USB memory stic.
- Interface: USB and Ethernet.
- Incl. LabView driver and user-software.



Die vier Anzeigemodi Histogramm, Bargraph, Ziffern und Trend liefern genaue und schnelle Messergebnisse



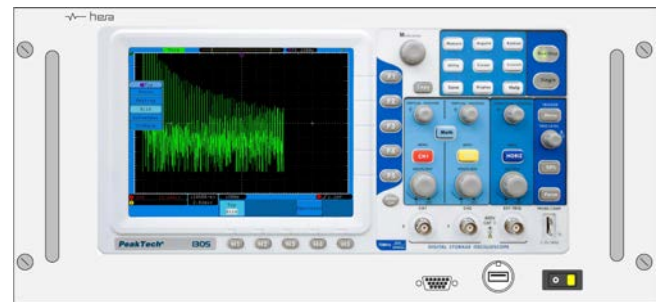
371.702.20	19" Cassette 56TE
372.702.20	19" Insertion 3HE

► other brands and types available

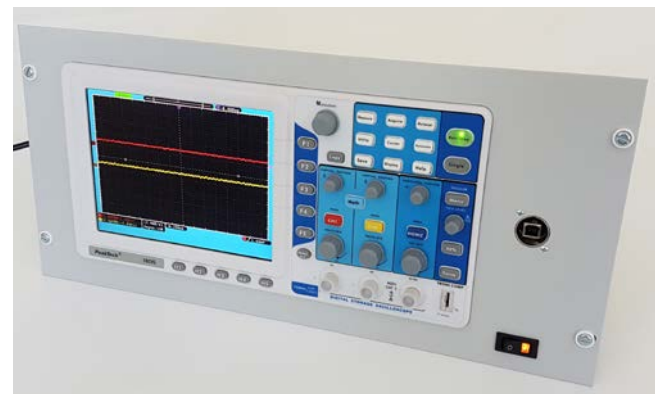
19" 2-CHANNEL DIGITAL STORAGE OSCILLOSCOPE PEAKTECH

Digital storage oscilloscope with high resolution color display, background illuminated, high band width and measuring rate, big internal data storage and USB interface. LAN interface for networks integration and VGA connector for presentation with external beamer or monitor.

- 2 channels.
- 8" TF color display (800 x 600 picture; 65536 colors).
- USB interface for real time data transmission or memory read-out.
- Autoset - and autoscale function.
- Big internal storage for 15 waveforms.
- 20 automatic measuring modes and FFT function.
- PASS/FAIL function.
- Safety: EN 61010-1; CAT II.
- Accessory: 2 St. BNC cable, PASS/ FAIL adapter, USB cable, Software-CD, power cable and 2 probes.



► other brands and types available



Digital Storage Oscilloscope		5HE
373.101.030	30MHz / 125MSa/s	
373.101.070	70MHz / 500MSa/s	
373.101.100	100MHz / 1GSa/s	
373.101.200	200MHz / 2GSa/s	

19" DIGITAL STORAGE OSCILLOSCOPE GW INSTEK

Digital storage oscilloscope with perfect price / performance ratio. for industrial or educational purpose. Software for data transmission and data logging within scope of delivery.

- 2- or 4-channel.
- 8" TFT color display.
- 2GSa/s real time sampling rate.
- 2MPts memory depth.
- 36 automatic measurements.
- FFT analysis.
- 6digit frequency counter.
- USB interface and front side USB connector for memory stick.



Digital Storage Oszilloscope		5HE
373.119.207	2-Channel / 70MHz	
373.119.407	4-Channel / 70MHz	
373.119.222	2-Channel / 200MHz	
373.119.422	4-Channel / 200MHz	

19" CASSETTE **CONSTANT CURRENT SOURCE**

- Selector for 4mA, 20mA and 0...50mA.
- Burden voltage: max. 30V.
- 10turn potentiometer for 0...50mA.
- LED display 3digit.
- Status-LED (ok / overload).
- Output on 4mm safety jacks.
- Illuminated 2poles switch.



369.050.402 Constant Current Source (21TE)

19" CASSETTE **CONSTANT VOLTAGE SOURCE**

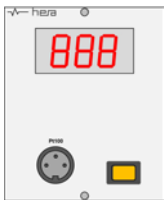
- Selector for 1V, 10V and 0...30V.
- Short circuit current: 100mA.
- 10turn potentiometer for 0...30V.
- LED display 3digit.
- Status-LED (ok / overload).
- Output on 4mm safety jacks.
- Illuminated 2poles switch.



369.050.202 Constant Voltage Source (21TE)

19" CASSETTE **DIGITAL THERMOMETER**

- Temperature meter for PT100/PT1000 probe according to DIN EN 60751.
- Device in 3-wire technology with automatic adjustment to cable resistances.
- Measuring current max. 1,5mA. Analogue output (no isolated) in mV/°C.
- Accuracy: $\pm 0,1\% \pm 1$ a.f.m.
- Measuring rate: 2,5 measurements / sec.
- 3 1/2digit LED display (12,5mm; red).
- Incl. immersion sensor or surface sensor in 3-wire technology.



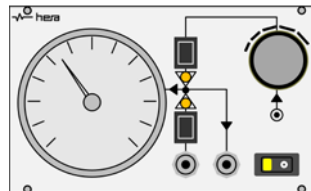
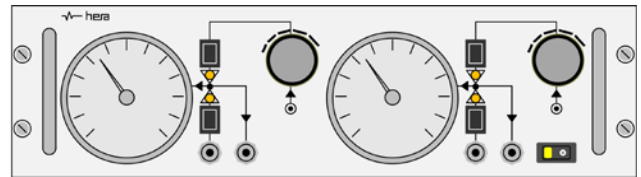
Digital Thermometer

369.060.102	- 100,0°C ... + 199,9°C (21TE)
369.060.202	- 100,0°C ... + 400°C (21TE)



19" CASSETTE PRESSURE CALIBRATOR, ANALOGUE

- Precision regulator.
- Selector for internal or external supply with 3/2-magnetic valve and status LED.
- Inlet and outlet with selfclosing quick-connectors 4/6mm.
- Analogue pressure gauge class 1,0.
- Illuminated 2poles switch.
- Completely hosed, with open end 4/6.



Pressure Calibrator, Analogue

389.001.102	Vacuum (42TE)
389.102.102	0 - 2,5bar (42TE)
389.106.102	0 - 6bar (42TE)
389.110.102	0 - 10bar (42TE)
389.110.302	0 - 2,5bar + 0 - 10bar (3HE)

19" CASSETTE DIGITAL MANOMETER / DIGITAL CALIBRATOR

- Digital pressure instrument with sensor for the measurement of difference -, relative - and absolute pressure.
- 3½ digit LCD display.
- Piezoresistive pressure sensor.
- Measuring range HI, class 0.2% (full scale).
- Measuring range LO, class 0.5% (full scale).
- Inlet and outlet with selfclosing quick-connectors 4/6mm.



Digital Manometer

Calibrator with:

- Precision regulator.
- Selector for internal or external supply with 3/2-magnetic valve and status LED.
- Illuminated 2poles switch.
- Completely hosed, with open end 4/6.



Digital Pressure Calibrator

Digital Manometer / Digital Calibrator

383.002.002	Digital Manometer 0 - 2000mbar (28TE)
383.010.002	Digital Manometer 0 - 10bar (28TE)
383.002.102	Digital Calibrator 0 - 2000mbar (49TE)
383.010.102	Digital Calibrator 0 - 10bar (49TE)

CALIBRATION HAND PUMP

- Manual pumps with fine valve for precise pressure adjustment.
- Manual pump with selector switch for vacuum.

Calibration Hand Pump

390.000.700	Vacuum -800mbar
390.005.000	0 ... 7bar
390.040.000	-0,95 ... 40bar
390.060.000	-0,95 ... 60bar



19" INSERTION APPLIANCE TESTER VDE 0701/0702

- Device for appliance testing according to DIN VDE 0701–0702, repeat test BGV A3 and DIN EN 62353.
- Direct selection of the individual measurement types with function button.
- Automatic adaption of limiting value (protective conductor, insulation).
- 2 poles measurement (low ohmic, insulation, equivalent leakage current, voltage).
- Tests of firmly connected devices is possible.
- Clear text operation with schematic diagram and green / red LED indication for OK / failure.
- Large display, rich in contrast.
- Mains connection is checked for PE contact and automatic switch off in case of dangerous leakage current of test item.
- Bluetooth and USB interface.
- Fast procedure of all activated tests inclusive function test with real-effective-power indication in only one step.
- Optional: Operation via Android Test Master App with SQLITE3 data base.
- Optional protocol generation with guided test procedures with universal app Report Master for iOS and Windows.
- Instant pole-changing.



Measurements (usage failure 5% v.M. + 1% v.B.)

- Protective conductor: 0,000Ω...4,000Ω
test current: 200mA DC / no-load voltage 10V.
- Insulation resistance: 0,00MΩ...20,00MΩ,
no-load voltage: 50 , 250V, 500V,
short circuit current: 1mA
- Integrated leakage current switch-off:
difference current > ca. 20mA.
- Equivalent leakage current: 0,00mA...20,00mA,
open circuit voltage: approx. 200V AC (max. 2,5mA)
- Difference current: 0,00mA...20,00mA AC
according DIN EN 61557-14 for correct evaluation of the
harmonic waves.
- Touch protection: 0,000mA...4,000mA.
- Mains voltage measurement: 200V...250V AC.

Incl. accessory:

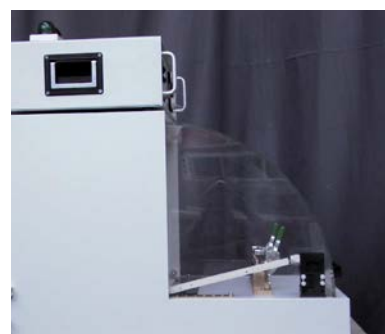
- Bluetooth and USB C interface.
- Measuring leads 2m, 1x red + 1x black.
- Report Master App for 1 year.
- Inhouse calibration certificate.



Appliance Tester	
377.002.903	19" Appliance Tester (4HE)
338.700.309	Safety-Remote Single License

TEST HOOD

- Dimensions: 530 x 900 x 660mm (WxDxH).
- Lower side with plastic base and cavity for test item adation.
- Foldable rounded plexiglass test hood with handle and safety switch.
- Rear panel and sides made of durable plastics.

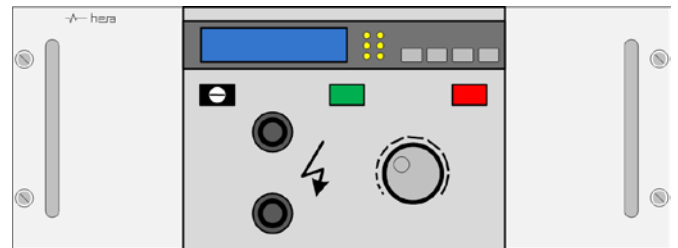


377.050.100	Test Hood
-------------	-----------

19" HIGH VOLTAGE TESTER

- HV test voltage : 0...6000V manually stepless adjustable. HV resolution: 10V_{eff} HV.
- Voltage reading: digital root mean indication (TRMS).
- HV test current: I_{max} = 100mA | I_k>200mA (according VDE- / IEC standard).
- Total current: digital root mean square indication (TRMS) resolution: 0,1mA.
- HV limiting current evaluation: HV-I min/max comparator:
0,1...100mA - freely programmable report if the limiting current is exceeded.
- HV response time: < 30ms.
- HV nominal power: >500VA (according to VDE-/ IEC-standard) of approx. 500V.
- HV operating mode: manual, automatic, burn.
- HV activation: in mains voltage zero crossing.
- Protection: key switch, external safety contact and emergency stop.
- Microprocessor controlled with HIGH-TEC processor if latest technology.
- Display: illuminated, high-contrast, 2-line 16digit alphanumeric reading.
- Signal: optic and accoustic failure message.
- CE-conform: according to EN50191.

377.010.102 High Voltage Tester 4HE



19" UNIVERSAL TESTER

Universal Tester for all Safety Tests:

- Resistance test for PE contact 1...30A AC/ 6V or 12V.
- Insulation resistance test 30...1000V.
- High voltage test 0...6000VAC/ 100mA/ 500VA.

Technical Data:

- Illuminated TFT touch display 10,5".
- Data base for approx. 10000 test procedures and test results.
- 8 Gbyte memory.
- LAN -, 4x USB - and CAN Bus interface.
- 3x serial RS232- 9poles SUB-D.
- Connectors for warn - and result lamps.
- Input for external safety features and emergency stop.
- Digital in- and outputs (24V DC) for external control, e.g. PLC controlled.
- 4x inputs for variable usage, e.g. external programs.
- Menu languages DE, UK, IT and SP.
- Accoustic signal for failures.
- Depth incl. rear sided connector : 350mm + approx. for industrial plug.



in Ordnung									
Nr.	Beschreibung	Endspannung	Schwell	GenussZeit	Schwell	Bemerkung			
1	Isolationswiderstand L/N-PE	500V	400V	2.040	2.040				
2	Durchgang L/N	4.50mA	0.05mA	100.00	100.00				
3	Schleifenwiderstand	10A	13.3A	0.200	0.100				



377.030.100 Universal Tester 4HE

Accessory

377.039.100	PE Probe (1...30Amp-2,5m) with Start Button
377.039.150	PE Connecting Cable and PE Crocodile Clamp
377.039.200	Safety Gun (2x required) 10kVDC / 8kVAC (2m)
377.039.300	Warning Lamp, standing
377.039.350	Result Lamp, standing
377.039.400	Foot Switch for Test Voltage ON/ OFF (2m cable)



19" **SUB RACK** FOR 19" CASSETTES

- 19" sub rack for 3HE euro cassettes in euro raster and 3HE front panels (DIN 41494).
- Right and left with fixing brackes for the fixation in 19" racks (light grey powder coated).
- Incl. guiding rails and H15 connectors.
- Completely wired with 3phase harness and terminal block.
- Depth: 290mm.



341.003.302 19" Sub Rack for Cassetts 84TE / 3HE



19" **SUB RACK** FOR 19" EP/ MP MODULES

- 19" sub rack for the acceptance of 3HE modules in EP raster or 5HE modules in MP raster.
- Right and left with fixing brackes for the fixation in 19" racks (light grey powder coated).



19" Sub Rack for 19" EP/MP Modules	
341.003.102	1½ EP (3HE)
341.005.102	3MP (5HE)



19" SUB RACK FOR LS2000 INSERTIONS

- 19" sub rack for 1x double insertion or 2x single insertion.
- Right and left with fixing brackets for the fixation in 19" racks (light grey powder coated).
- Incl. guiding rails and H15 connectors.
- Completely wired with 3phase harness and terminal block.

341.007.302

19" Sub Rack for LS2000 Insertions 7HE



PROFI 19" SHELF UNIT

- The shelf unit is prepared for the acceptance in PROFI 19" bench racks with tilted front.
- Incl. 1x height adjustable shelf board.
- Color: light grey.



PROFI 19" Shelf Unit

7HE

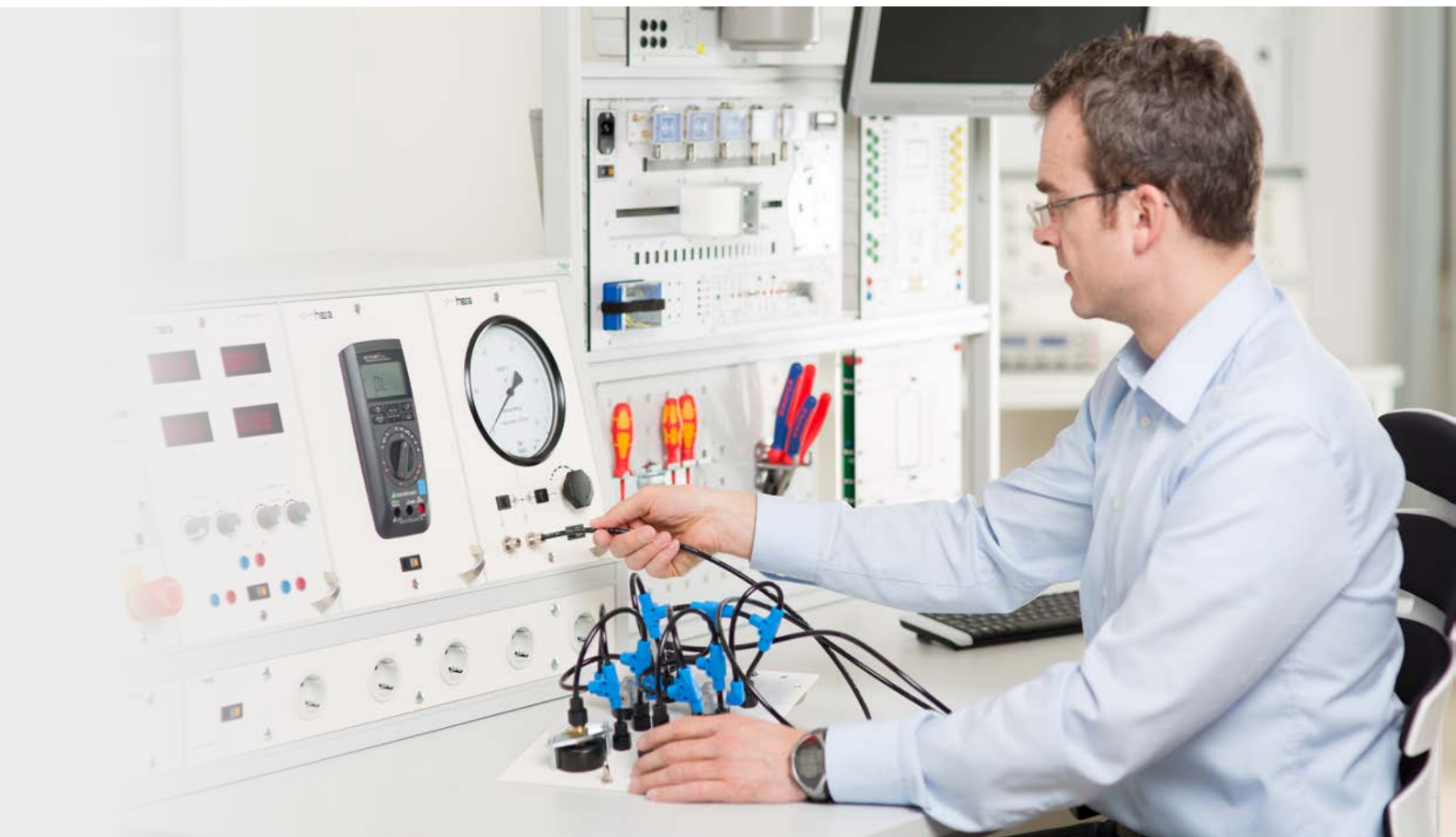
341.008.002

Standard

341.008.502

ESD



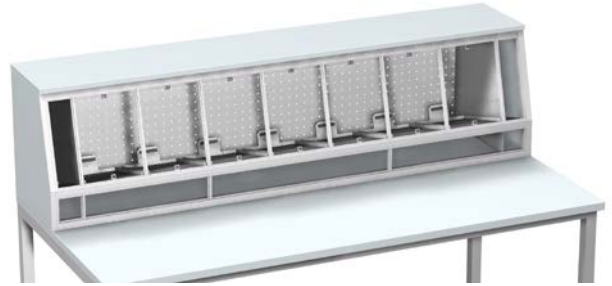


CHAPTER 12: LS2000 INSTRUMENT RACKS & MODULES

400	LS2000 Standard Bench Rack	418	Variable AC Sources 1phase
403	LS2000 Bridge Bench Rack and Upper Attachment	420	Variable AC Sources 3phase
405	Carrying Case, Power Cords and Sockets with Flap	422	Motor Tester with Variacs
406	Blank Panels and Blank Plug-In Units	424	Sinus Frequency Converter
408	Mains Panels and Emergency Stop Modules	425	Fixed DC Supply and DC High Current Sources
409	Socket Panels	426	Lab Power Supply ICOM (Extended-Range and Linear)
410	Socket Panels with Isolating Transformer	427	Function Generator
411	Socket Panels with Emergency Stop or Safety Jacks	429	Multimeter, Calibrator and LCR-Meter
412	Socket Panels with CEE Outlet and Safety Jacks	430	Digital Multimeter ICOM and Oscilloscope
413	Measuring Unit with Analog - and Digital Reading	431	Appliance Tester VDE 0701/0702
414	Continuity Tester	432	Pressured Air Supply / Pressure Calibrator
415	Soldering Station and Soldering Fume Extraction	433	Pressure Calibrator with Electric Standard Signals
416	Soldering - / Desoldering Station UNIVERSAL	434	Load Resistance and Test Speaker
417	R-Decade or L- and C-Decade		

LS2000 STANDARD BENCH RACK

- Light grey body made of 19mm melamine resin covered chipboard with tilted front.
- Aluminium frame for the integration of LS2000 plug-in units (LE) and 2x vertical modules (NE). The plug-in units directly contact the central wire harness when slid in. The plug-in units and modules are fixed with comfortable quick fasteners. LE divider can be removed to give room for double LE units.
- Lower section with aluminium frame for the acceptance of horizontal socket modules (WE) in size 1, 2, 3 and 4.
- Three-phase central wire harness for the plug-in units and terminal block.
- Detachable perforated sheet steel rear panel (durable powder coated) with 2 cable glands.
- Depth: 300mm / 385mm, height: 468mm.



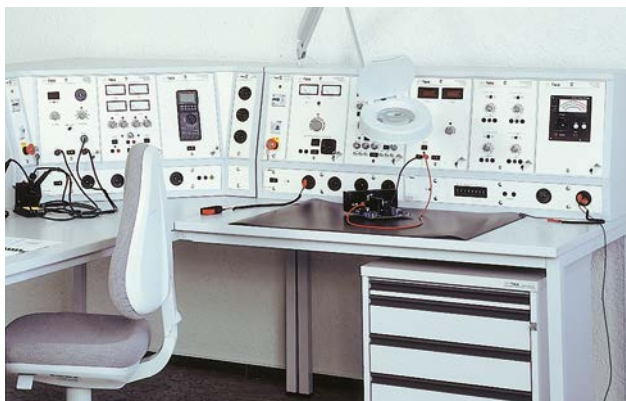
LS2000 Standard Bench Rack 211. **BBB**. 500

BBB Width

036	360mm / 1x NE + 1x LE + WE (size 2)	126	1260mm / 1x NE + 5x LE + 2x WE (size 3 + 4)
058	580mm / 1x NE + 2x LE + WE (size 3)	148	1485mm / 1x NE + 6x LE + 3x WE (size 1 + 2x size 4)
081	810mm / 1x NE + 3x LE + 2x WE (size 1 + 4)	180	1800mm / 2x NE + 7x LE + 3x WE (2x size 3 + size 4)
103	1030mm / 1x NE + 4x LE + 2x WE (size 2 + 4)	200	2000mm / 1x NE + 8x LE + 3x WE (3x size 1 + 2x size 4)

Corner Solution:

212.100. 500 Corner 1000 x 1000mm / 2x NE + 3x LE + 2x WE (size 2 + 4)



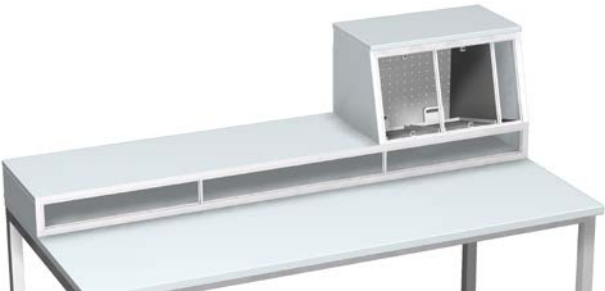
LS2000 BENCH RACK WITH **WE BOARD**

- Equipment WE Board: 2x WE size 3 + 1x WE size 4.
- Width: 1800mm; depth: 300/385mm; height: 134/468mm.

LS2000 Bench Rack with WE Board221.0BB.500

BB Width

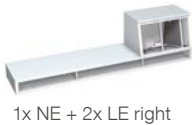
58	1x NE + 2x LE left
59	1x NE + 2x LE right
81	1x NE + 3x LE left
82	1x NE + 3x LE right



► see LS2000 Standard Rack for details



1x NE + 2x LE left



1x NE + 2x LE right



1x NE + 3x LE left



1x NE + 3x LE right

LS2000 BENCH RACK WITH **SHELF**

- Equipment WE Board: 2x WE size 3 + 1x WE size 4.
- Width: 1800mm; depth: 300mm/385mm; height: 468mm.

LS2000 Bench Rack with Shelf222.BBB.500

BBB Width

058	1x NE + 2x LE left
059	1x NE + 2x LE right
081	1x NE + 3x LE left
082	1x NE + 3x LE right
126	1x NE + 5x LE left
127	1x NE + 5x LE right



► see LS2000 Standard Rack for details



1x NE + 2x LE left



1x NE + 2x LE right



1x NE + 3x LE left



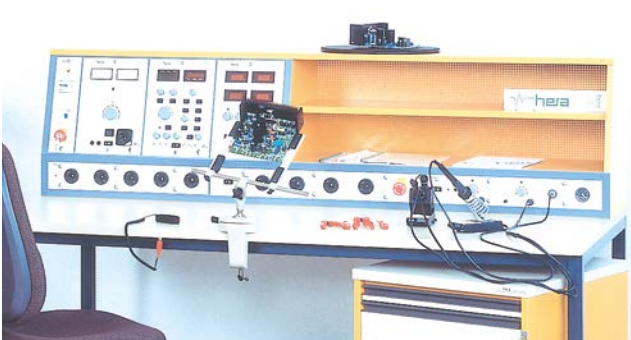
1x NE + 3x LE right



1x NE + 5x LE left



1x NE + 5x LE right



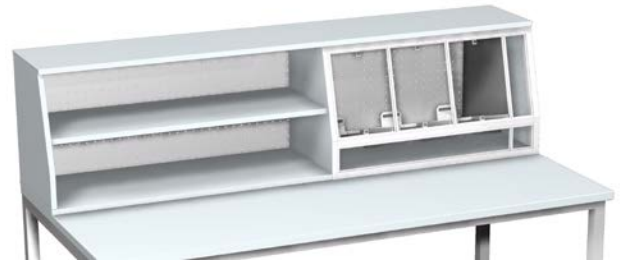
LS2000 BENCH RACK WITH END SHELF

- Width: 1800mm; depth: 300/385mm; height: 468mm.

LS2000 Bench Rack with End Shelf 223. **BBB**.500

BBB Breite

058	1x NE + 2x LE + 1x WE (size 3 left)
059	1x NE + 2x LE + 1x WE (size 3 right)
081	1x NE + 3x LE + 1x WE (size 4 left)
082	1x NE + 3x LE + 1x WE (size 4 right)
126	1x NE + 5x LE + 2x WE (size 3 + 4 left)
127	1x NE + 5x LE + 2x WE (size 3 + 4 right)



► see LS2000 Standard Rack for details



1x NE + 2x LE left



1x NE + 2x LE right



1x NE + 3x LE left



1x NE + 3x LE right



1x NE + 5x LE left



1x NE + 5x LE right

LS2000 BENCH RACK WITH MIDDLE SHELF

- Width: 1800mm; depth: 300/385mm; height: 468mm.

LS2000 Bench Rack with Middle Shelf 224.0 **BB**. 500

BB Width

36	2x NE + 2x LE + 2x WE (2x size 2)
58	2x NE + 4x LE + 2x WE (2x size 3)



► see LS2000 Standard Rack for details



2x NE + 2x LE

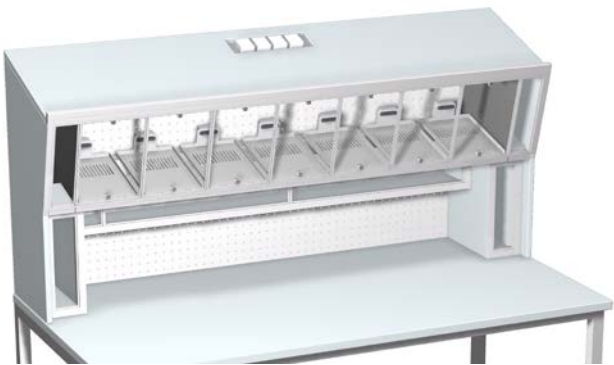


2x NE + 4x LE



LS2000 BRIDGE BENCH RACK

- Body with tilted front made of light grey 19mm melamine resin covered chipboard.
- The top is tilted by 15° and can be used as instrument shelf. It is equipped with stop edge and 4 incorporated sockets with flap.
- Aluminium frame for the integration of LS2000 plug-in units (LE) and vertical modules (NE). The plug-in units directly contact the central wire harness when slid in. The plug-in units and modules are fixed with comfortable quick fasteners.
- Three-phase central wire harness for the plug-in units and terminal block.
- Detachable perforated sheet steel rear panel (durable powder coated) with 2 cable glands.

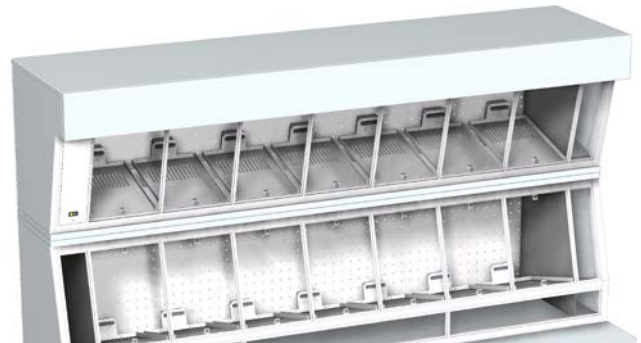


LS2000 Bridge Bench Rack		229.BBB.5	E 0
BB Width		E Version	
126	1260mm / 3x NE + 5x LE	0	with WE Board (only 1485mm and 1800mm)
148	1485mm / 3x NE + 6x LE	1	no WE Board
180	1800mm / 4x NE + 7x LE		
Corner:			
500	Eck 1000 x 1000 / 3x LE		



LS2000 UPPER ATTACHMENT UNIT WITH LAMP

- Body with tilted front made of light grey 19mm melamine resin covered chipboard.
- The attachment unit is equipped with a fluorescent lamp (36W) behind the top panel, switchable with integrated illuminated 2poles switch.
- Aluminium frame for the integration of LS2000 plug-in units (LE) and vertical modules (NE). The plug-in units directly contact the central wire harness when slid in. The plug-in units and modules are fixed with comfortable quick fasteners.
- Three-phase central wire harness for the plug-in units and terminal block.
- Detachable perforated sheet steel rear panel (durable powder coated) with 2 cable glands.
- Depth: 500/ 385/ 300mm; height: 470mm.



LS2000 Upper Attachment Unit with Lamp

228. **BBB**. 500

BBB Width

126	1260mm / 5x LE
148	1485mm / 6x LE
180	1800mm / 1x NE + 7x LE
200	2000mm / 8x LE



5x LE



6x LE



1x NE + 7x LE



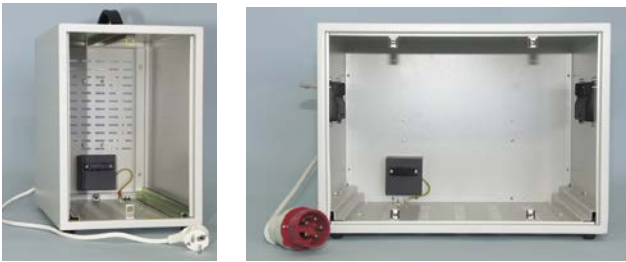
8x LE



CARRYING CASES FOR LS2000

- Sheet steel housing, durable light grey powder coated with carrying handle.
- With LS2000 quick fasteners, guiding rails and rear sided terminal block. Power cable with earth protected 1phase - or 3phase plug.
- Dimension: 340 x 340mm (HxD).

Carrying Case for LS2000	
294.001.100	LE (W: 248mm)
294.001.200	Double-LE (W: 473mm)



CONNECTING CABLES

Connecting Cables	
291.001.100	5m (3x1,5mm²) with open end
291.001.150	5m (5x2,5mm²) with open end
291.001.200	3m (3x1,5mm²) with Type F plug
291.001.250	5m (3x1,5mm²) with Type F plug
291.001.256	5m (3x1,5mm²) with Type G plug (British)
291.001.258	5m (3x1,5mm²) with NEMA 15 plug (British)
291.001.300	5m (5x2,5mm²) with CEE plug 16A, red
291.001.350	5m (5x6mm²) with CEE plug 32A, red
291.001.400	5m (3x1,5mm²) with CEE plug, 3poles, blue
291.001.500	5m Emergency Stop Cable (2x1,5mm²), open end
291.001.550	3m Emergency Stop Cable (2x1,5mm²), open end
291.001.603	3m Patch Cable, grey with 2x RJ45 Plug CAT 6
291.001.605	5m Patch Cable, grey with 2x RJ45 Plug CAT 6
291.001.610	10m Patch Cable, grey with 2x RJ45 Plug CAT 6



flexible cables with / without plug completely connected to bench rack

► international plugs available

TOPMOUNT SOCKET UNIT WITH FLAPS

- PE socket module with flaps, recessed mounted into the wooden body of the bench rack and connected to the central rack supply.

Topmount Socket Unit with Flaps	
291.006.401	4x PE Sockets
291.006.201	2x PE Sockets



LAMP ADAPTER

- Durable plastic adapter for armed lamps, flush integrated into the wooden bench rack.
- Diameter: 13mm.

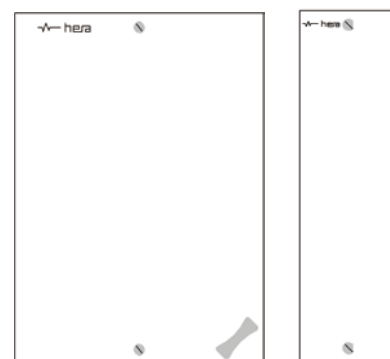
Lamp Adapter	
291.003.100	for LS2000 Standard Bench Rack
291.003.150	for LS2000 Bridge Bench Rack



LS2000 BLANK PANELS

- Aluminium front panel, creme white powder coated with abrasion proofed and chemically resistant silkscreen printing and fixing bolts.
- NE = vertical module H: 85 x 310mm (WxH).
- WE = horizontal module H: 85mm
 - size 1 = W: 85mm
 - size 2 = W: 310mm
 - size 3 = W: 535mm
 - size 4 = W: 670mm
- LE = LS2000 panel 219 x 310mm (WxH) or Double-LE panel 444 x 310mm (WxH).

Blank Panel	
233.100.100	WE size 1
233.200.100	WE size 2
233.300.100	WE size 3
233.400.100	WE size 4
231.000.100	NE
241.000.100	LE
241.000.300	Double-LE



LS2000 EMPTY PLUG-IN UNIT

- Aluminium front panel, creme white powder coated, with abrasion and chemical resistant silkscreen printing, metal handle and fixing bolts.
- Chassis with side and bottom.
- Rear side with 12poles connector.
- Depth: 260mm.

Empty Plug-In Unit	
241.000.200	LE
241.000.400	Double-LE



THE CLASSIC - FOR A MAXIMUM OF TECHNOLOGY

LS2000 is the classic laboratory system. It was the first modular system with integrated instruments and still it is No. 1 in many fields. All our modules are available in LS2000 technology. The system is characterized by bench top mounted racks with hardwearing technology in spacious A4 or A3 module size.



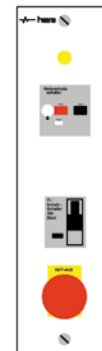
LS2000 MAINS PANEL

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- Voltage control lamps.
- Motor circuit breaker 16A with undervoltage release.
- RCD 25A / 30mA.
- Type A or Type B (recommended for educational institutions according to VDE 0100-723).
- Mushroom-type buttons with NCC, either rotation release or key-release.
- Other rated currents or voltages available!



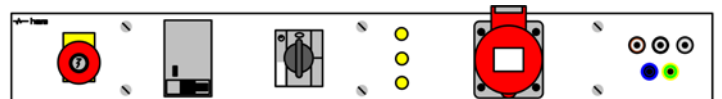
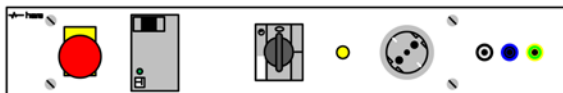
LS2000 Mains Panel NE

231.062.100	1phase, RCD Type A, Emergency Stop, Key Release
231.062.102	1phase, RCD Type A, Emergency Stop, Rotation Rel.
231.062.103	1phase, RCD Type B, Emergency Stop, Rotation Rel.
231.062.104	1phase, RCD Type B, Emergency Stop, Key Release
231.072.100	3phase, RCD Type A, Emergency Stop, Key Release
231.072.102	3phase, RCD Type A, Emergency Stop, Rotation Rel.
231.072.103	3phase, RCD Type B, Emergency Stop, Rotation Rel.
231.072.104	3phase, RCD Type B, Emergency Stop, Key Release



LS2000 Mains Panel WE

	size 3, 1phase	size 3, 3phase	size 4, 1phase	size 4, 3phase
RCD, Type A, Emergency Stop, Key Release	232.362.101	232.312.400	232.462.101	232.412.400
RCD, Type A, Emergency Stop, Rotation Release	232.362.102	232.312.402	232.462.102	232.412.402
RCD, Type B, Emergency Stop, Key Release	232.362.103	232.312.403	232.462.103	232.412.403
RCD, Type B, Emergency Stop, Rotation Release	232.362.104	232.312.404	232.462.104	232.412.404



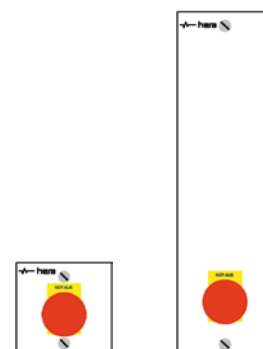
► other rated currents or voltages available!

LS2000 MODULE WITH EMERGENCY STOP BUTTON

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- Mushroom-type button with NCC, unwired.

Module with Emergency Stop Button

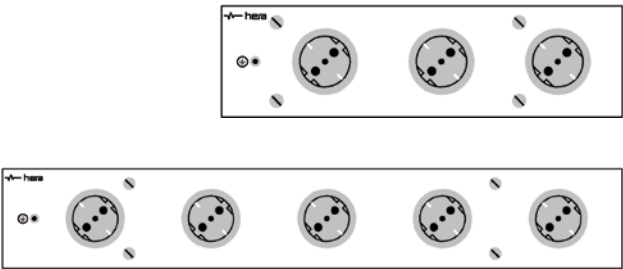
231.006.300	NE
233.106.300	WE size 1



LS2000 **SOCKET PANEL**

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- 1phase PE sockets, type F, 45° positioned (other international standard available).

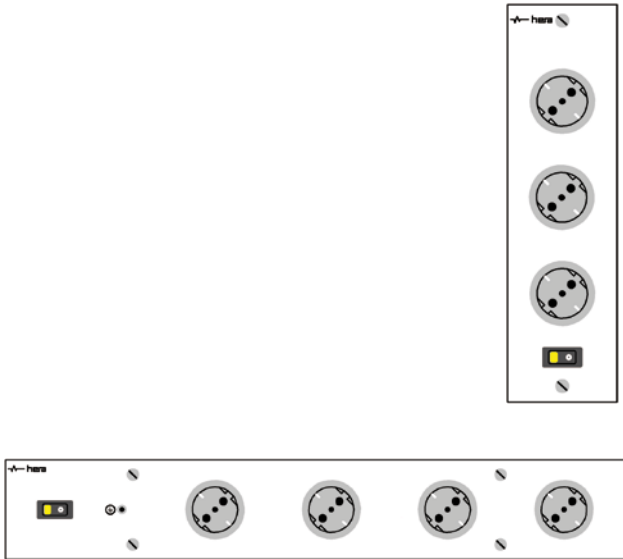
Socket Panel WE	
233.220.101	size 2 / 3x PE sockets
233.320.101	size 3 / 5x PE sockets
233.420.101	size 4 / 6x PE sockets



LS2000 **SOCKET PANEL WITH SWITCH**

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Illuminated 2poles switch.

Socket Panel with Switch	
231.221.101	NE / 3x PE sockets
233.221.101	WE size 2 / 2x PE sockets
233.321.101	WE size 3 / 4x PE sockets
233.421.101	WE size 4 / 5x PE sockets



► international sockets available!

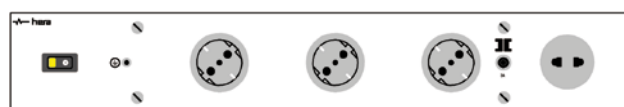
LS2000 SOCKET PANEL WITH ISOLATING TRANSFORMER

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- Toroidal core transformer 700VA for the supply of floating AC voltage 230V/3A. Protected by front side operated thermomagnetic fuse.
- Output at universal socket (Type F, Franco-American) without protective earth.
- PE socket type F, 45° positioned (other international standards available).
- Illuminated 2poles switch.



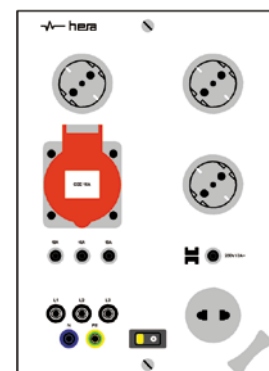
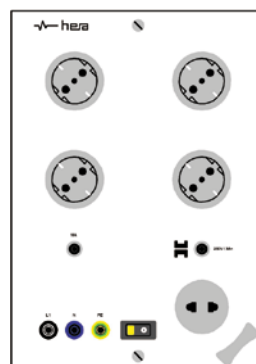
Socket Panel with Isolating Transformer

231.221.301	NE / 1x Universal Socket + 2x PE sockets
233.321.301	WE size 3 1x Universal Socket + 3x PE sockets
233.421.301	WE size 4 1x Universal Socket + 4x PE sockets



LS2000 SOCKET MODULE AND ISOLATING TRANSFORMER

- Plug-in unit with aluminium front panel creme white powder coated; abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- Toroidal core transformer 700VA for the supply of floating AC voltage 230V/3A. Protected by front side operated thermomagnetic fuses.
- Output at universal socket (Type F, Franco-American) without protective earth.
- 1 phase PE socket type F, 45° positioned (other international standards available), optionally with 3phase CEE socket.
- 4mm safety jacks.
- Illuminated 2poles switch.



Socket Module and Isolating Transformer

241.229.101	LE 1 phase, 1x Universal, 4x PE sockets
241.389.301	LE / 3phase 1x Universal, 1x CEE, 3x PE sockets

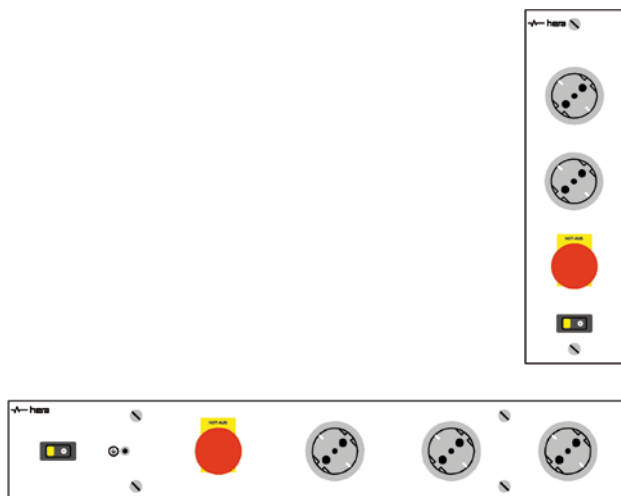


LS2000 SOCKET PANEL AND EMERGENCY STOP BUTTON

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- Emergency Stop button with NCC, unwired.
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Illuminated 2poles switch.

Socket Panel with Emergency Stop

231.221.401	NE / 2x PE sockets; Emergency Stop
233.321.401	WE size 3 / 3x PE sockets; Emergency Stop
233.421.401	WE size 4 / 4x PE sockets; Emergency Stop



LS2000 SOCKET PANEL WITH SAFETY JACKS

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- 3x 4mm safety jacks (L, N and PE).
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Illuminated 2poles switch.

Sockets with Safety Jacks

233.321.501	WE size 3 / 3x PE sockets and Safety Jacks
233.421.501	WE size 4 / 4x PE sockets and Safety Jacks



LS2000 SOCKET PANEL WITH CEE SOCKET AND SWITCH

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- CEE socket, straight 400V /16A, 6h, 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N and PE).
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Illuminated 2poles switch.

Socket Panel with CEE Socket and Switch

233.341.401	WE size 3 / 2x PE sockets
233.441.401	WE size 4 / 3x PE sockets

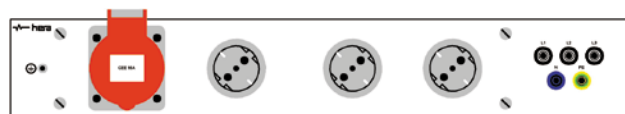
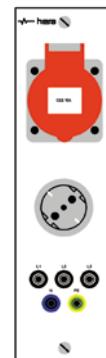


LS2000 SOCKET PANEL WITH 3 PHASE CEE SOCKET AND SAFETY JACKS

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- CEE socket, straight 400V / 16A, 6h, 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N and PE).
- 1phase PE sockets, type F, 45° positioned (other international standard available).

Socket Panel with 3phase CEE Socket and Safety Jacks

231.240.401	NE / 1x PE socket
233.340.401	WE size. 3 / 3x PE sockets
233.440.401	WE size 4 / 4x PE sockets



LS2000 SOCKET PANEL WITH 3PHASE CEE SOCKET AND SWITCH

- Aluminium front panel creme white powder coated with abrasion proofed and chemical resistant silkscreen printing and fixing bolts.
- CEE socket, straight 400V / 16A, 6h, 5poles.
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Illuminated 2poles switch with contactor.

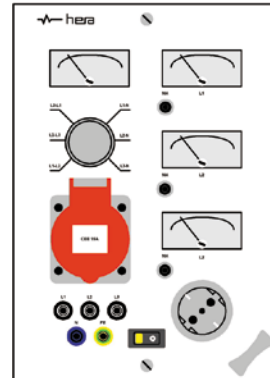
Socket Panel with 3phase CEE Socket and Switch

233.341.201	WE size 3 / 3x PE sockets
233.441.201	WE size 4 / 4x PE sockets



LS2000 ANALOG MEASURING MODULE

- Analog voltage reading (moving iron class 1,5) with measuring point selector.
- 3x analog current readings (moving iron class 1,5) for L1,L2, L3.
- 3x front side operated thermomagnetic fuses 10A.
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- CEE socket, straight 400V / 16A, 6h, 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N and PE).
- Illuminated 2poles switch with contactor.

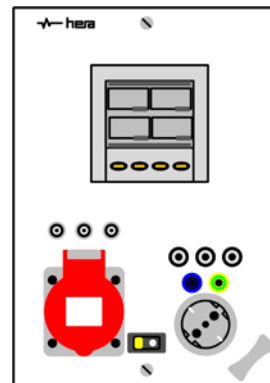


241.389.401

Analog Measuring Module LE

LS2000 MULTIFUNCTIONAL MEASURING MODULE

- Multifunctional unit with graphic-LCD, consisting of variably programmable readings and four buttons.
- Optionally with USB interface.
- 3x front side operated thermomagnetic fuses 10A.
- 1phase PE socket, type F, 45° positioned (other international standard available).
- CEE socket, straight 400V / 16A, 6h, 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N and PE).
- Illuminated 2poles switch with contactor.

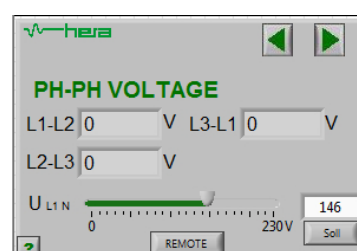


Multifunctional Measuring Module

241.389.502	LE / with USB Interface
241.389.602	LE / no USB Interface

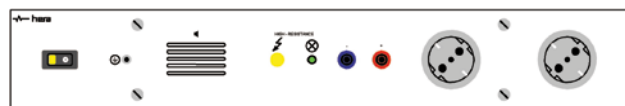
Technical Data to Multifunctional Display:

- Display 96 x 96mm with graphic-LCD 128 x 80 Pixel and 4x control buttons.
- Voltage TRMS (phases -, system - and phase-to-phase voltages); accuracy: $\pm 0,2\%$.
- Phase current TRMS (calculated current of neutral); accuracy: $\pm 0,2\%$.
- Power (active -, reactive -, apparent power each phase and in total); accuracy: $\pm 0,5\%$ of active values.
- Power factor (each phase and in total); accuracy: $\pm 0,5\%$.
- Frequency (frequency measurement of measured voltage); accuracy: $\pm 0,05\%$.
- High - and Low value of the actual measured voltage, current, power, power factor and frequency.
- Total harmonic distortion (THD) of voltages and currents.
- Harmonic analyse of current and voltage up to 31rd harmonic wave.
- Counter for active , reactive and apparant power (part and total counter) with programmed tariff functions.
- Hour counter (total and service hours, programmable).



LS2000 ELECTRONIC CONTINUITY TESTER

- High ohmic, electronic continuity tester, poled.
- Resistance range: 0...200k Ω with acoustic signal (sound alternation at resistance change) and optic signaling.
- External voltage protected and lamp indication.
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Output at 4mm safety jacks.
- Illuminated 2poles switch.

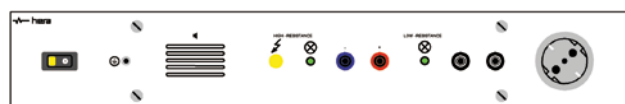


Electronic Continuity Tester

234.321.501	WE size 3 / 2x PE socket
234.421.501	WE size 4 / 3x PE socket
277.205.000	LE

LS2000 ELECTRONIC / ELECTRIC CONTINUITY TESTER

- High ohmic, electronic continuity tester, poled.
- Resistance range: 0...200k Ω with acoustic signal (sound alternation at resistance change) and optic signaling.
- External voltage protected and lamp indication.
- Electric continuity tester for low ohmic tests with 24V_{AC}.
- Indicated with lamp.
- 1phase PE sockets, type F, 45° positioned (other international standard available).
- Output at 4mm safety jacks.
- Illuminated 2poles switch.



Electric / Electronic Continuity Tester

234.321.601	WE size 3 / 1x PE socket
234.421.601	WE size 4 / 2x PE socket
277.205.100	LE



LS2000 ANALOG **SOLDERING STATION**

- Professional Weller soldering station 24V/ 80W with electrical temperature control.
- Stepless adjustable temperature control via potentiometer between 150°C and 450°C with temperature control LED.
- Antistatic soldering tool WSP of Weller and stand with sponge.
- Connector for soldering fume extractor.
- Version with 120V available!



Analog Soldering Station	
234.352.501	WE size 3 / 3x PE sockets
234.452.101	WE size 4 / 3x PE sockets
280.004.101	LE

LS2000 DIGITAL **SOLDERING STATION**

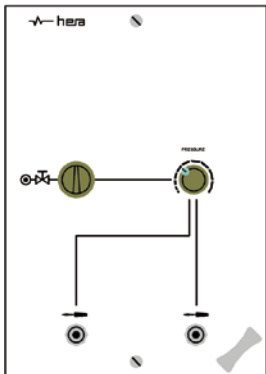
- Microprocessor controlled Weller soldering station (24V/ 80W) with automatic soldering tool identification.
- Stepless adjustable temperature control with up/ down button, adjustable between 50°C and 450°C.
- 3digit LED display for nominal and actual temperature.
- Antistatic soldering tool WSP80 of Weller with stand and sponge.
- Connector for soldering fume extractor.
- Version with 120V available!



280.005.101	Digital Soldering Station LE
-------------	------------------------------

LS2000 PNEUMATIC **SOLDERING FUME EXTRACTION**

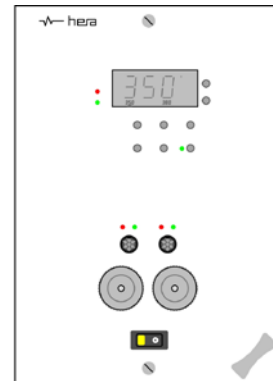
- Integrated soldering fume extraction pump with filter.
- Rear side with pneumatic connector.
- Control valve for suction adjustment and closing valve.
- 2x Air extraction connectors for soldering tools.



280.005.900	Soldering Fume Extraction LE
-------------	------------------------------

LS2000 UNIVERSAL SOLDERING / DESOLDERING STATION

- Universal repair station for professional work with electronic modules in industrial manufacturing and repair.
- The station has two individual tool-specific channels with automatic tool identification and activation of the respective control parameters. Soldering and desoldering or soldering with hot air is possible at the same time.
- Integrated rotary vane pump for suction or flow (max. vacuum 0,7 bar; max. flow qty 18 l/min).
- Freely programmable buttons for repeating functions.
- LC display.
- EGB safe.
- ECO-button.
- Temperature control: 50°C – 550°C.
- For a variety of Weller soldering tools up to 200W.
- Version with 120V available!



Accessory

380.000.100	Soldering Set 80W (lead free soldering) (Soldering Tool WP80, Safety Stand)
380.000.200	Soldering Set 120W (Soldering Tool WP120, Safety Stand)
380.000.300	Desoldering Set 80W (lead free soldering) (Desoldering Tool, Safety Stand, Cleaning Kit)
380.000.400	Desoldering Set 120W (lead free soldering) (Desoldering Tool, Safety Stand, Cleaning Kit)
380.000.500	Hot Air Set 100W (Hot Air Tool, Safety Stand, Nut Driver for Nuzzle Changing)

280.001.501 Universal Soldering / Desoldering Station LE



Soldering Set



Desoldering Set



Hot Air Set



LS2000 R-DECADE

- 8x decade switches with precision resistors in the range of 1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ, 1MΩ, 10MΩ.
- Accuracy: 0,1% + 100mΩ.
- Max. voltage: 200V_{AC}; max. current: 0,5A.
- 9x 4mm safety jacks for resistance taps.
- 1phase PE sockets, type F, 45° positioned (other international standard available).



R-Decade	
234.341.100	WE size 3 / 2x PE sockets
234.441.100	WE size 4 / 3x PE sockets
277.003.300	LE

LS2000 R- AND C-DECADE

R-Decade:

- 8x decade switches with precision resistors in the range of 1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ, 1MΩ, 10MΩ.
- Accuracy: 0,1% + 100mΩ.
- Max. voltage: 200V AC; max. current: 0,5A.
- 9x 4mm safety jacks for resistance taps.



C-Decade:

- 5x decade switches for precision capacitors in the range of 100pF, 1nF, 10nF, 100nF, 1μF
- Accuracy: 5% +75 pF.
- Max. voltage: 200V AC; max. current: 0,5A.
- 2x 4mm safety jacks for capacity taps.

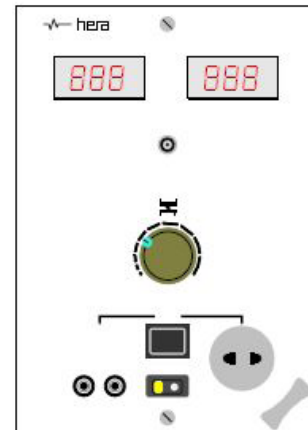
R- and C-Decade	
234.341.200	WE size 3
234.441.200	WE size 4
277.003.400	LE



LS2000 MODULE WITH FLOATING AC SOURCE, 1PHASE

- Variac with downstream connected isolating transformer for a floating output voltage of 0...100%. Protected by a front side operated thermomagnetic fuse.
- Output selector for 4mm safety jacks or universal socket (Type F, Franco-American) without protective earth.
- Current - and voltage reading
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS
 - accuracy: 0,5% +/- 1 digit.
- Illuminated 2poles switch.

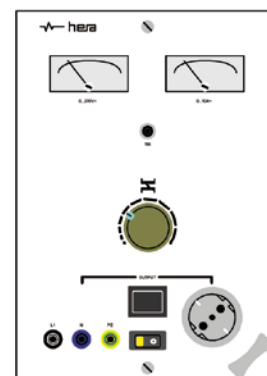
Floating AC Source 1phase		242.2	SS	A	01
SS	Type	A	Version		
53	0-270V / 3A LE	1	analog		
56	0-270V / 5A LE	5	digital		
76	0-270V / 16A Double-LE (3phase required)				



LS2000 MODULE WITH AC SOURCE, 1PHASE

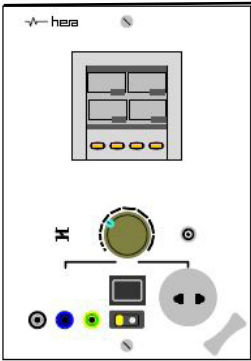
- Variac for an output voltage of 0...100%. Protected by front side operated thermomagnetic fuse.
- Output selector for 4mm safety jacks or socket with protective earth (different international standards available).
- Current - and voltage reading
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS
 - accuracy: 0,5% +/- 1 digit.
- Illuminated 2poles switch.

AC Source, 1phase	LE
242.259.101	LE / 0-270V / 10A analog
242.259.501	LE / 0-270V / 10A digital



LS2000 AC SOURCE, 1PHASE, FLOATING WITH MULTIFUNCTIONAL DISPLAY

- Variac and isolating transformer for an output voltage of 0...100%. Protected by front side operated thermomagnetic fuse.
- Output selector for 4mm safety jacks or universal socket (Type F, Franco-American) without protective earth.
- Multifunctional unit with graphic-LCD, consisting of variably programmable readings and four buttons. For measurement of current, voltage, active -, reactive -, apparent power, mains frequency and energy.
- Optionally with USB interface .
- Illuminated 2poles switch.



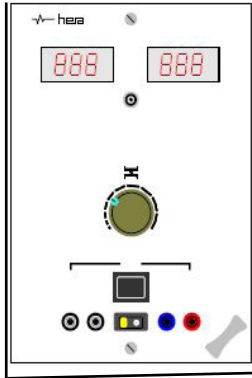
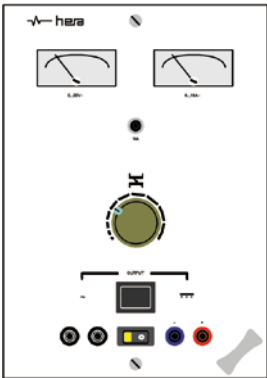
► **Note: Article No. 242.276.601 and 242.276.701 need 3phase supply!**

AC Source, 1phase with Multifunctional Display

242.253.602	LE / 0-270V / 3A
242.256.602	LE / 0-270V / 5A
242.276.602	Double-LE / 0-270V / 16A
242.276.702	Double-LE / 0-270V / 16A with USB Interface

LS2000 AC/ DC SOURCE, 1PHASE

- Variac for an output voltage of 0...100%. Floating type with isolating transformer. Protected by a front side operated thermomagnetic fuse.
- Switchable bridge rectifier for a pulsating DC voltage with 48% ripple.
- AC - and DC output at 4mm safety jacks.
- Current - and voltage reading
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS
 - accuracy: 0,5% +/- 1 digit.
- Illuminated 2poles switch.



AC/DC Source, 1phase

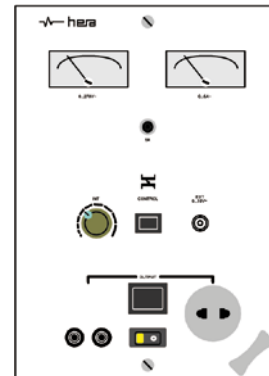
LE

246.039.101	LE / floating 0-30V / 10A analog
246.253.101	LE / floating 0-270V / 3A analog
246.253.201	LE / floating 0-270V / 3A + 0-60V / 10A analog
246.253.401	LE / floating 0-270V / 3A + 0-60V / 10A digital
246.256.101	LE / floating 0-270V / 5A analog
246.256.501	LE / floating 0-270V / 5A digital
246.259.101	LE / non-floating 0-270V / 10A analog



LS2000 STABILIZED AC SOURCE, 1PHASE

- Motor driven variac with isolated windings (set time: approx. 10sec. over the full range) for a floating output voltage between 0...100%. Protected by front side operated thermomagnetic fuse.
- Electronic voltage stabilization, accuracy: 1,5% of final value.
- Control input 0...10V_{DC} for the external adjustment of the output voltage.
- Selector switch for output at 4mm safety jacks and universal socket (Type F / Franco-American) without protective earth.
- Current - and voltage reading
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS
 - accuracy: 0,5% +/- 1 digit.
- Illuminated 2poles switch.



Stabilized AC Source, 1phase	LE
252.256.101	LE / 0-270V / 5A analog
252.256.401	LE / 0-270V / 5A digital

LS2000 VARIABLE AC SOURCE, 3PHASES

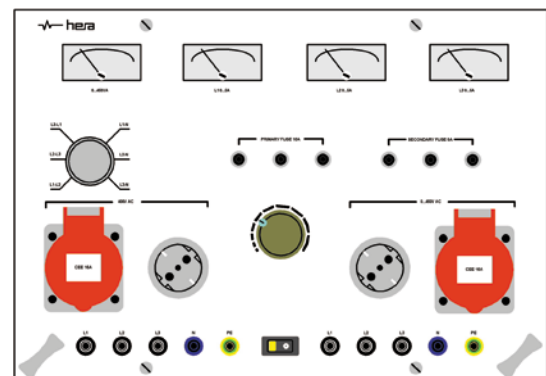
- Star-connected 3phase variac for an output voltage between 0...100%. Protected by front side operated thermomagnetic fuses.

Fixed Outputs:

- 1x CEE socket, straight 400V / 16A, 6h 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N, PE).
- 1x PE socket type F (other standards available).

Variable Outputs:

- 1x CEE socket, straight 400V / 16A, 6h 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N, PE).
- 1x PE socket type F (other standards available).
- 3x current display L1, L2, L3 and 1x voltage reading with measuring point selector
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS
 - accuracy: 0,5% +/- 1 digit.
- Illuminated 2poles switch with contactor.

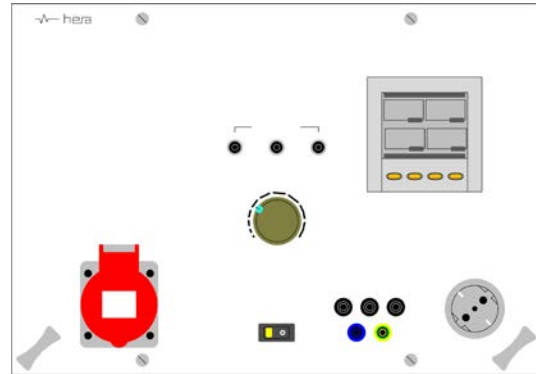


Variable AC Source, 3phases	Double-LE
243.385.301	0-450V / 5A
243.389.301	0-400V / 10A
243.385.501	0-450V / 5A
243.389.501	0-400V / 10A



LS2000 AC SOURCE, 3PHASES WITH MULTIFUNCTIONAL DISPLAY

- Star-connected 3phase variac for an output voltage between 0..100%. Protected by front side operated thermomagnetic fuse.
- 1x CEE- socket, straight 400V / 16A, 6h, 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N, PE).
- 1x PE socket type F (other standards available).
- Multifunctional unit with graphic-LCD, consisting of variably programmable readings and four buttons. For the measurement of current, voltage, active -, reactive - and apparent power, mains frequency and energy.
- Optionally with USB interface.
- Illuminated 2poles switch with contactor.

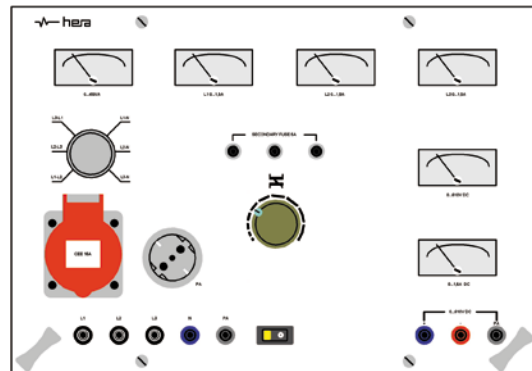


Variable AC Source, 3phase with Multifunctional Display

243.385.602	0-450V / 5A no Interface
243.385.702	0-450V / 5A with USB-Interface
243.389.602	0-400V / 10A no Interface
243.389.702	0-400V / 10A with USB-Interface

LS2000 AC/DC SOURCE, 3PHASES

- Star-connected 3phase variac for an output voltage between 0...100%. Protected by front side operated thermomagnetic fuse.
- 1x CEE socket, straight 400V / 16A, 6h, 5poles.
- 5x 4mm safety jacks (L1, L2, L3, N, PE).
- 1x PE socket type F (other standards available).
- 3x current readings L1, L2, L3 and voltage reading with measuring point selector
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS accuracy: 0,5% +/- 1 digit.
- 6-point-recitifier (ripple 4,3 %).
- DC voltage - and DC current display.
- 4mm safety jacks for variable DC output (factor 1,35 of AC voltage).
- Illuminated 2poles switch with contactor.



AC/DC Source, 3phases

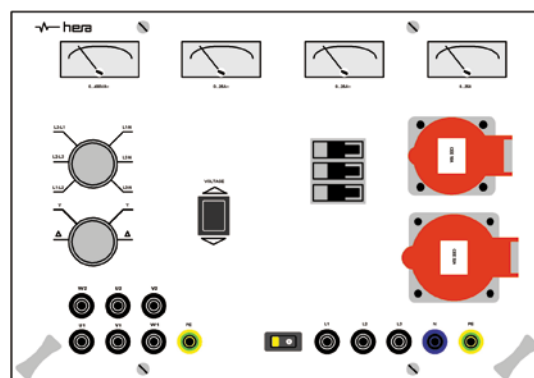
Double-LE

247.381.301	0-450V / 1,5A; floating, analog
247.385.301	0-450V / 5A analog
247.389.301	0-400V / 10A analog
247.385.501	0-450V / 5A digital
247.389.501	0-400V / 10A digital



LS2000 MOTOR TESTER, ANALOG

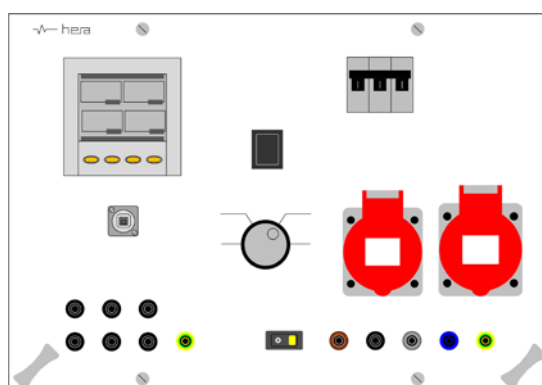
- Rocker switch for the stepless adjustment of the external variac (variac not included!).
- 7x high voltage jacks arranged as motor terminal board (U1, U2, V1, V2, W1, W2 and PE).
- Star -/ delta- and rotation direction selector switch.
- More output via high voltage jacks (L1, L2, L3, N, PE) and CEE socket.
- 3x analogue current reading L1, L2, L3 and voltage reading with measuring point selector (moving iron class 1,5).
- Illuminated switch with contactor.



Motortester analog		Double-LE	
285.381.101	16A	285.386.101	60A
285.382.101	25A	285.399.101	100A
285.384.101	40A		

LS2000 MOTOR TESTER WITH MULTIFUNCTIONAL DISPLAY

- Rocker switch for the stepless adjustment of the external variac (variac not included!).
- 7x high voltage jacks arranged as motor terminal board (U1, U2, V1, V2, W1, W2 and PE).
- Star -/ delta- and rotation direction selector switch.
- More output via high voltage jacks (L1, L2, L3, N, PE) and CEE socket.
- Multifunctional unit with graphic-LCD, consisting of variably programmable readings and four buttons. For the measurement of current, voltage, active -, reactive - and apparent power, mains frequency and energy.
- Optionally with USB interface.
- Illuminated switch with contactor.



Motor Tester with Multifunctional Display		Double-LE	
285.381.701	16A	285.386.701	60A
285.382.701	25A	285.399.701	100A
285.384.701	40A		



EXTERNAL VARIAC FOR MOTOR TESTER

- Sheet steel housing with swivel casters, two with brakes.
- Integrated motor driven 3phase variac with inrush current limiter.
- Input terminal and primary fuse.
- Terminal for motor tester with RCD.

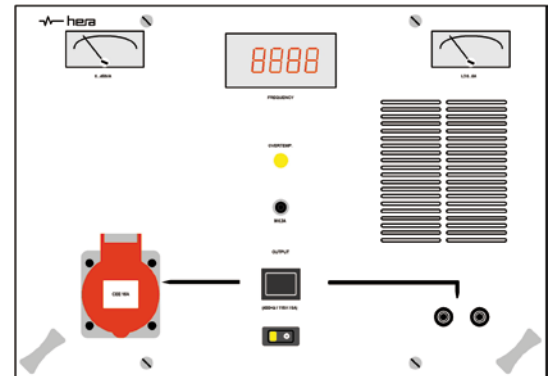
Variac for Motor Tester	
285.516.100	0-400V / 16A
285.525.100	0-400V / 25A
285.540.100	0-400V / 40A
285.550.100	0-400V / 50A
285.560.100	0-400V / 60A
285.599.100	0-400V / 100A



LS2000 SINE FREQUENCY CONVERTER, 1PHASE

- In-phase controlled precision sine frequency converter (harmonic distortion <3%) for floating and stabilized output voltage (+/- 2%).
- Selector switch for output on 4mm safety jacks or 3poles CEE socket.
- Analog voltage - and current display.
- Digital frequency - and status indication.
- Illuminated 2poles switch.

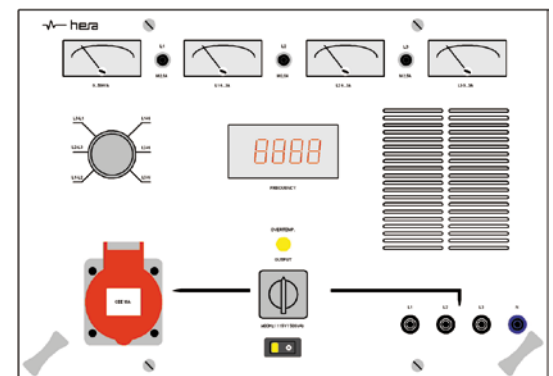
Sine Frequency Converter, 1phase	Double-LE
255.064.100	60Hz / 115V / 4A
255.406.100	400Hz / 115V / 6A



LS2000 SINE FREQUENCY CONVERTER, 3PHASES

- 400Hz / 115V / 500VA.
- In-phase controlled 3phase precision frequency converter (harmonic distortion < 3%) for floating and stabilized output voltage (+/- 2%).
- Selector switch for output on 4mm safety jacks or 5poles CEE socket.
- 3x analogue current reading L1, L2 and L3 and analogue voltage reading.
- Digital frequency - and status display.
- Illuminated switch with contactor.

256.402.100	Sine Frequency Converter Double-LE
-------------	------------------------------------



LS2000 SINE FREQUENCY CONVERTER, 1PHASE

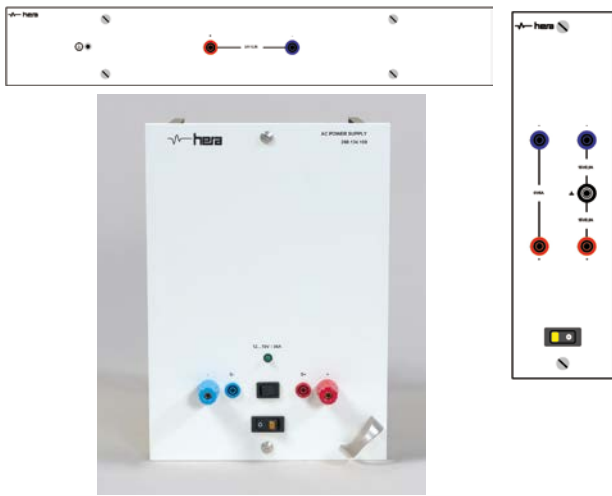
- Test socket for 115V and 230V, max. 1,8kVA.
- Selector switch for 50Hz and 60Hz.
- Overvoltage -, undervoltage -, overload -, overtemperature protection and LED indication.
- The device is used to convert the existing mains voltage into other mains voltage and Hz. In combination with other international standard sockets and the suitable current limiters, appliances for different country standards can be tested.



920.114.302	Sine Frequency Converter Double-LE
-------------	------------------------------------

LS2000 **FIXED DC SUPPLY**

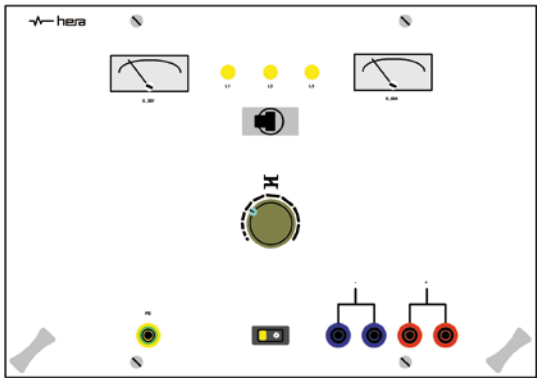
- Stabilized and short circuit proofed fixed DC supply, galvanically isolated.
- Overload -, overvoltage - and overtemperature protected.
- Offset: < 2%.
- Ripple: < 120mV p-p.
- Output on 4mm safety jacks.
- Illuminated 2poles switch.



Fixed DC Supply		23 S - LLL - LLL	
S Type	LLL.LLL Voltage / Current		
0 LE	105.032 5V / 3A	113.112 13,5V / 11,2A	148.022 48V / 2,3A
1 NE	105.052 5V / 5A	113.142 13,5V / 14,9A	148.042 48V / 4,2A
3 WE size 3	105.102 5V / 10A	124.012 24V / 1,5A	212.032 + 12V / 3A + 5V / 6A
	112.032 12V / 3A	124.032 24V / 3,2A	224.022 + 24V / 2A + 5V / 6A
	112.062 12V / 6A	124.062 24V / 6,5A	312.012 +/- 12V / 1A + 5V / 5A
	112.122 12V / 12,5A	124.082 24V / 8,4A	315.012 +/- 15V / 0,8A + 5V / 5A

LS2000 **HIGH CURRENT DC SUPPLY**

- 3phase variac with two downstream connected isolating transformers and a 6-point rectifier with load-independant ripple of < 1,5%.
- Phase control lamps (L1, L2, L3).
- Output at 2x 2 high current jacks.
- Current - and voltage reading
 - analog: moving iron class 1,5.
 - digital: 3digit LED display TrueRMS accuracy: 0,5% +/- 1 digit.
- Illuminated switch with contactor.

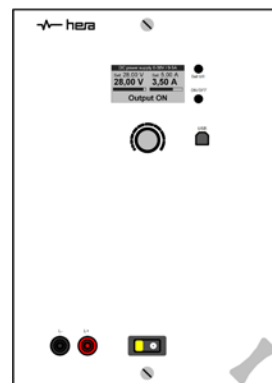


High Current DC Supply		244 SSS - A 01		Double-LE
SSS Voltage / Current	A Version			
160 0-15V / 0-60A	1 analog			
325 0-30V / 0-25A	4 digital			
360 0-30V / 0-60A				



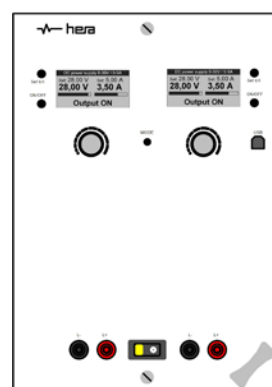
LS2000 LABORATORY POWER SUPPLY ICOM

- Background illuminated graphic-LCD display 60x30mm (128x64) for the indication of all important values and modes at once.
- Rotary switch with pushbutton function for a fast and precise setting of voltage and current.
- Extra buttons for fast and intuitive operation.
- Output ON-/ OFF button with status indication in the display.
- Double power supplies with easy switching between 2-channel -, tracking -, series - or parallel operation.
- Output at 4mm safety jacks.
- Illuminated 2poles switch.
- Front side with USB - and rear side with LAN interface.
- LabView driver and compatible with softwares IMODdesktop and IMODmobile.



Technical Data Lab Power Supply EXTENDED RANGE:

- Switchmode lab power supply; up to 160W fanless.
- Stability at 0-100% load: <0,8%.
- Stability at 10% mains alternation: <0,02%.
- Ripple: <5mVrms.
- Set time 10-100% load: <1ms.
- Overvoltage protection: 0...46,2V.
- Accuracy: <0,2%.
- Nominal values for current and voltage adjust one another so the max. power is not exceeded.



Technical Data Lab Power Supply LINEAR:

- In-phase controlled laboratory power supply with transformer switching.
- Silent operating fan with temperature controlled speed at 150W and 300W (60W-fanless).
- Resolution of nominal and actual values: 14bit (16384 dots).
- Resolution of measurements: 16bit (65536 dots).
- Ripple (at $I_a = 50\%$): <1mVrms.
- Set time (load step 10-90% I_a , at 50% U_a): <50 μ s.
- External voltage protected: 100V / 50V (60W).

Lab Power Supply ICOM EXTENDED RANGE		26 A LLL 803	
A Channels	LLL Voltage / Current		
1 Single	406 100W / 0 - 42V / 0 - 6A	803 100W / 0 - 84V / 0 - 3A	
2 Double	410 160W / 0-42V / 0 - 10A	805 160W / 0 - 84V / 0 - 5A	
	420 320W / 0 - 40V / 0 - 20A		

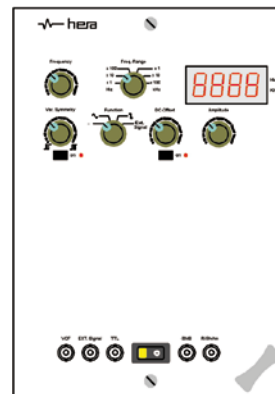
Lab Power Supply ICOM LINEAR		26 A . LLL 403	
A Channels	LLL Voltage / Current		
1 Single	302 0 - 30V / 0 - 2A	310 0 - 30V / 0 - 10A	
2 Double	305 0 - 30V / 0 - 5A		

LS2000 FUNCTION GENERATOR, 1MHZ

- Exact and user-friendly frequency setting with multi-turn potentiometer.
- Frequency distortion: < 2% for whole bandwidth; frequency stability: < 0,3%/K.
- Function setting of sinus, triangle, square and external signal with rotary switch.
- Harmonic distortion: < 0,5% (max. 50Hz); < 1% (50kHz - 100kHz); < 3% (100kHz - 1MHz).
- Linearity error: < 1% (max. 100kHz); < 5% (100kHz - 1MHz).
- Symmetric error: < 1% (max. 100kHz); < 5% (100kHz - 1MHz).
- Rise - and fall time: < 80ns at 50Ω load.
- Variable symmetry between 20%...80% adjustable with potentiometer. 1:1 symmetry adjustable with illuminated button.
- DC-Offset (zero point displacement) adjustable between -10V...+10V.
- Frequency adjustment via external voltage input (VCF).
- Frequency indication with 4digit LED display.
- 5x BNC socket with VCF, external signal input; TTL-output, -30dB input, 50Ω output.

Option Power Amplifier:

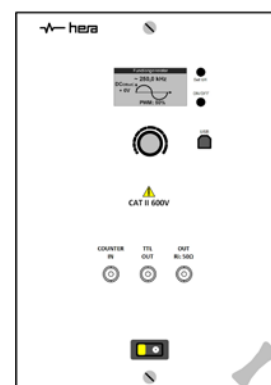
- Switchable in the range of 0,1Hz...100kHz.
- 40W_{eff} continuous power with sinus at 5W.
- Short circuit proofed due to retracted current curve.
- Max. output voltage 40V_{SS}.



Function Generator 1MHz	
271.653.101	no Power Amplifier
271.653.201	with Power Amplifier

LS2000 FUNCTION GENERATOR ICOM

- Background illuminated graphic LC display 60x30mm.
- Navigation via rotary switch with pushbutton function and 2 buttons.
- Illuminated 2poles switch for central on /off.
- Front side with USB - and rear side with LAN interface.
- LabView-driver and the compatible software IMODdesk top and IMODmobile for remote control.
- 3x BNC sockets.
(COUNTER IN, TTL OUT and OUT Ri: 50Ω).
- Basic functions: sinus, triangle, rectangular, saw tooth, pulse, trapezium.
- Frequency range: 50mHz – 10MHz (sinus), 50mHz – 1MHz (other signals).
- Arbitrary with value table (comfortable uploading with IMODdesktop).
- Other functions: PWM, TTL-output.
- Amplitude: 30V_{SS} (max. 1MHz), max. 3V_{SS} at 10MHz.
- Resolution: 12 Bit.
- Duty cycle: 0,1% ... 99,9%.
- DC Offset: ± 7,5V.
- Frequency measurement: max. 50MHz.



272.830.102

Function Generator ICOM (LE)

OPEN SYSTEM FOR THE INTEGRATION OF OTHER BRANDS

The modular character of our system is prepared for the integration of our broad range of modules and instruments, but it also allows the integration of other brands. So if you do not find your preferred brand in our catalogue, this does not mean it cannot be a part of your workstation.



LS2000 DIGITAL MULTIMETER, LCR METER AND CALIBRATOR

TRMS Multimeter DM62:

- Digital multimeter flush integrated into aluminium front panel, light grey powder coated with abrasion proofed silkscreen printing and fixing bolts for the LS2000 system.
- Resolution: 6600 dots (3 6/7 digits) and analog bargraph (66 dots).
- Background illuminated dual digital display.
- Accuracy: $0,4\% V_{DC}$.
- Bandwidth: V_{AC} TRMS 2kHz.
- Voltage: V_{DC} 100 μ V ...1000V.
- and V_{AC} TRMS 100 μ V ...1000V.
- Current: A_{DC} 10 μ A ...10A and A_{AC} TRMS 10 μ A ...10A.
- Resistance: 100m Ω ...60M Ω .
- Temperature: -50...+1.300°C, thermocouple type K.
- Frequency measurement: 0,01Hz ...10,00MHz.
- Duty cycle: 1% ...98,9% (1kHz).
- Capacity: 1pF ...40,00mF.
- Continuity - and diode test.
- Hold / peak / MIN / MAX / relative (zero).
- Autorangeing or manual range selection.
- Automatic blocking sockets ABS.

Precision Multimeter TECH 4½ digit TRMS:

- 3 sockets with automatic blocking ABS.
- Autorangeing or manual range selection.
- Automatic data logging DATA/ MIN/ MAX.
- Background illuminated display with large figures and bargraph.
- Voltage AC TRMS - DC - AC+DC.
- Current AC TRMS - Current DC - Current AC+DC TRMS.
- Frequency (Hz via voltage and current).
- Temperature measurement with thermocouples type K.
- Capacity measurements, diode - and continuity test.
- DKD calibration certificate within scope of delivery.

Calibrator and Multimeter for Electric Parameter CAL:

- 0 - 24mA source and 0 - 300mA measurement.
- 0 - 20mA and 4 - 20mA adjustable range.
- Output voltage 0 - 300mV, 3, 10 and 15V.
- Resistance with 2 and 4 wire, max. 0,01m Ω simulation.
- Resolution of high resistance measurement max. 30m Ω .
- Simulation of RTD temperature sensors.
- °C/ °F, Pt100/ 1000, Ni100/ 1000.
- Simulation of thermocouples J, L, T, U, K, E, S, R, B, N with internal or external compensation of cold joints.
- Frequency generator with square pulse (1Hz ...1000Hz).
- Ramp -, step - and dwell function.
- DKD calibration certificate within scope of delivery.

Multifunctional Meter (DMM + LCR):

- 3 ½ digit background illuminated LCD display.
- MAX and HOLD function.
- V_{DC} 200mV / 2 / 20 / 200 / 600V; 100 μ V; +/- 0,5% + 1 dgt.
- V_{AC} 200mV / 2 / 20 / 200 / 600V; 100 μ V; +/- 0,8% + 3 dgt.
- A_{DC} 20 μ A / 2 / 200mA / 10A; 10nA; +/- 0,8% + 1 dgt.
- A_{AC} 20 μ A / 2 / 200mA / 10A; 10nA; +/- 1,0% + 3 dgt.
- Frequency range: 40 - 400Hz
- Ohm 200W / 2 / 20 / 200kW / 2 / 20 / 2000MW; 0,1W; +/- 0,8% 1 dgt.
- Capacity 20 / 200nF / 2 / 100 μ F; 10pF; +/- 2,5% + 5 dgt.
- Inductivity 2 / 20 / 200mH / 20H; 1 μ H; +/- 2,0% + 10 dgt.
- Frequency 2 / 20 / 200kHz / 2 / 10MHz; 1Hz; +/- 0,1% + 3 dgt.
- Temperature -40 ... +1000°C; +/- 1,0% + 3 dgt.
- Transistor test, diodes - and continuity test with buzzer.
- Incl. lab cords, multifunctional adapter, temperature probes.

LCR Meter:

- 4½ digit background illuminated 27mm LCD display.
- Resistance: 110 Ω / 1,1 / 11 / 110k Ω / 1,1 / 11 / 110M Ω , $\pm 1,2\% + 8$ dgt., 10m Ω
- Capacity: 11 / 110nF / 1,1 / 11 / 110 μ F / 1,1 / 11 / 110mF, $\pm 3,0\% + 10$ dgt., 1pF
- Inductivity: 11 / 110mH / 11 / 20 H, $\pm 2,0\% + 0,2$ mH, 1nH
- Measuring cycle: 3 - 4x per sec.
- MIN / MAX and HOLD function.
- Relative value measurement.
- Diode - and continuity test function.



DM62



TECH



CAL



DMM+LCR



LCR Meter

Digital Meter, LCR Meter and Calibrator

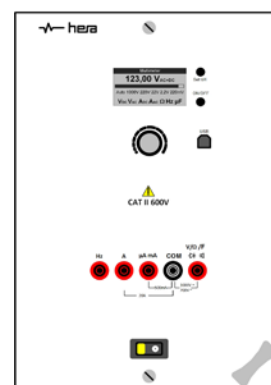
272.708.302	TRMS Multimeter DM62, incl. power supply
272.708.402	Precision Multimeter TECH 4½ digit TRMS, incl. power supply
272.708.602	Calibrator and Multimeter for Electrical Parameter CAL, incl. power supply
272.708.702	Multifunctional Meter (DMM + LCR), incl. power supply
272.708.802	LCR Meter, incl. power supply

LS2000 DIGITAL MULTIMETER ICOM

- Background illuminated graphic LC display 6x30mm.
- Navigation via rotary switch with pushbutton function and 2 buttons.
- Illuminated 2poles switch for central on / off.
- Front side with USB - and rear side with LAN interface.
- LabView-driver and the compatible software IMODdesk top and IMODmobile for remote control.
- 5x 4mm safety jacks (Hz, A, μ A/mA, COM, V/ Ω /F/diode/continuity test/temperature).
- Resolution: 4 3/4 digit (50.000 counts).
- Voltage DC: 10 μ V – 1000V.
- Voltage AC TrueRMS: 10 μ V – 700V.
- Current DC: 10nA – 20A .
- Current AC TrueRMS: 10nA – 20A.
- Current inputs protected by fuse.
- Resistance: max. 50M Ω .
- Frequency: 100 μ Hz – 50MHz.
- Capacity: max. 5mF.
- Other functions: diode test, continuity test and temperature measurement.
- Range selection: manual or autoranging.
- CAT II 600V.

272.710.602

Digital Multimeter ICOM (LE)




604.000.100: Immersion Temperature Sensor -70 ... +250°C



604.000.200: Surface Temperature Sensor -190 ... +260°C



604.000.300: Kapton Temperature Sensor -190 ... +260°C

Temperature Sensors to Digital Multimeter ICOM

604.000.100	Option Immersion Sensor
604.000.200	Option Surface Sensor
604.000.300	Option Kapton Sensor

LS2000 OSCILLOSCOPE GW INSTEK

Digital storage oscilloscope with many functions. Flush integrated into a LS2000 aluminium front panel. The oscilloscope comes with freely available software for networks integration or data logging on PC.

- 2 or 4 channels.
- 8" TFT display.
- 2 GSa/s real time sampling rate.
- 2MPts memory depth.
- 36 automatic measurements.
- FFT analysis.
- 6 digit frequency counter.
- USB interface and front side USB connector for memory stick.



► other brands and types available

Oscilloscope	Double-LE
273.119.207	2-channel / 70MHz
273.119.407	4-channel / 70MHz
273.119.220	2-channel / 200MHz
273.119.420	4-channel / 200MHz

LS2000 APPLIANCE TESTER VDE 0701/0702

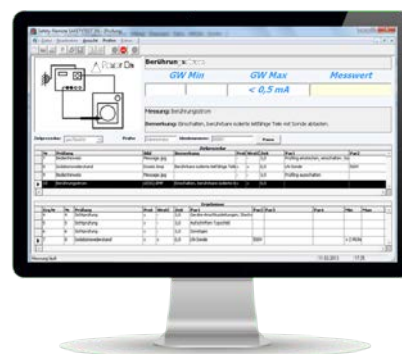
- Device for appliance testing according to DIN VDE 0701 – 0702 tests, repeat test BGV A3 and DIN EN 62353.
- Direct selection of the individual measurement types with function buttons.
- Automatic adaption of limiting value (protective conductor, insulation).
- 2 poles measurement (low ohmic, insulation, equivalent leakage current, voltage)
- Clear text operation with schematic diagram and green / red LED indication for OK / failure.
- Large display, rich in contrast.
- Mains connection is checked for PE contact and automatic switch off in case of dangerous leakage current of test item.
- Bluetooth and USB interface.
- Fast procedure of all activated tests inclusive function test with real-effective-power indication in only one step.
- Instantaneous pole reversal.



Appliance Tester VDE 0701/0702

Measurements (usage failure 5% v.M. + 1% v.B.)

- Protective conductor: $0,000\Omega \dots 4,000\Omega$
test current: 200mA DC / open-circuit voltage 10V.
- Insulation resistance: $0,00M\Omega \dots 20,00M\Omega$,
no-load voltage: 50V, 250V, 500V
short circuit current: 1mA.
- Integrated leakage current switch-off,
difference current > approx. 20 mA
- Leakage current: $0,00mA \dots 20,00mA$,
open circuit voltage: approx. 200V AC (max. 2,5 mA).
- Difference current: $0,00mA \dots 20,00mA$ AC
according DIN EN 61557-14 for correct evaluation of the harmonic waves.
- Touch protection: $0,000mA \dots 4,000mA$.
- Mains voltage measurement: 200V...250V AC.



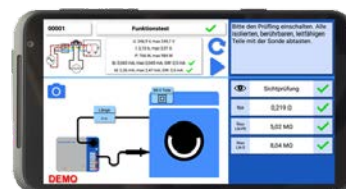
Windows Software Safety-Remote

Incl. Accessory:

- Interface Bluetooth and USB C.
- Measuring leads 2m, 1x red + 1x black.
- Report Master and Report-Master-App for 1 year.
- Inhouse calibration certificate.

Optional Test Software:

- Windows Software Safety-Remote:
Software for report generation and remote access, as well as data base functionality.
- Android data base app Test Master:
menu-guided app with camera documentation, report generation and SQLITE data base.



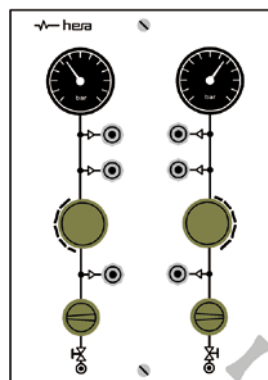
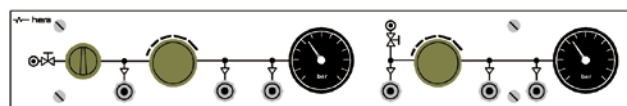
Android Data Base App Test-Master

Device Tester and Test Software

277.002.903	Device Tester VDE 0701/0702 2MP
338.700.309	Windows Software Safety-Remote
338.701.308	Android Data Base App Test-Master

LS2000 PRESSURED AIR SUPPLY

- 2x self-closing, unregulated outlets (hose 6/4).
- Adjustable pressure regulator 0-3bar with analog pressure gauge 4bar.
- 2x self-closing, regulated 3bar outlets (hose 6/4).
- Adjustable pressure regulator 0-10bar with analog pressure gauge 10bar.
- 2x self-closing, regulated 10bar outlets (hose 6/4).
- Completely hosed with open end 4/6.



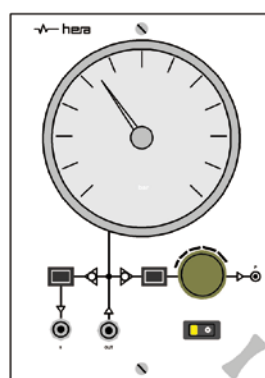
Pressured Air Supply

288.121.100	3 / 10bar / LE
288.321.100	3 / 10bar / WE size 3
288.421.100	3 / 10bar / WE size 4



LS2000 ANALOG PRESSURE CALIBRATOR

- Precision pressure regulator.
- 2x 2/3 magnetic valves with switches. LEDs for status indication.
- Analogue pressure gauge class 0,6 (diameter: 160mm) or class 1,0 (diameter: 100mm).
- 2x self-closing connectors (inlet and outlet / hose 6/4).
- Completely hosed with open end 4/6.
- Illuminated 2poles switch for central on/ off.



Analog Pressure Calibrator

LE

289.001.100	Vacuum Class 0,6
289.001.101	Vacuum Class 1,0
289.102.100	2,5bar Class 0,6
289.102.101	2,5bar Class 1,0
289.106.100	6bar Class 0,6
289.106.101	6bar Class 1,0
289.110.100	10bar Class 0,6
289.110.101	10bar Class 1,0



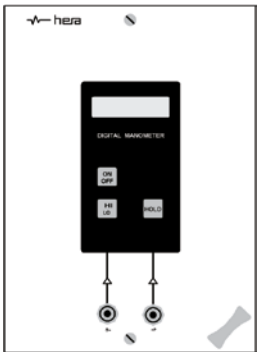
LS2000 DIGITAL PRESSURE CALIBRATOR

- Digital meter with pressure sensor for the measurement of difference -, relative - or absolute pressure.
- 3½ digit LCD display.
- Piezo-resistive pressure sensor.
- Measuring range HI, class 0.1% over full range.
- Measuring range LO, class 0.2% over full range.
- Inlet and outlet with self-closing valves 4/6mm.
- Other pressure ranges on demand.

Calibrator features:

- Selector switch for internal or external supply with two 3/2 magnetic valves and LED for status indication.
- Digital pressure measurement with integrated pressure sensor for the measurement of difference -, relative - and absolute pressure.
- Completely hosed with open end 4/6.
- Other pressure ranges on demand.

Digital Pressure Calibrator		LE
282.001.000	Digital Pressure Meter 0 - 1000mbar	
282.010.000	Digital Pressure Meter 0 - 10bar	
282.001.100	Pressure Calibrator 0 - 1000mbar	
282.010.100	Digital Pressure Calibrator 0 - 10bar	



LS2000 PRESSURE CALIBRATOR WITH ELECTRIC STANDARD SIGNALS

- Precision pressure regulator.
- Selector switch for internal or external supply with two 3/2 magnetic valves.
- Measurement of pressure -, vacuum, differential pressure and absolute pressure.
- Resolution: 1/1000 of measuring range.
- Max. load of range (4bar / 27bar).
- Tolerance: 0,1% over full range +/- 1 Digit.
- DC current measurement: 0...24mA (resolution 1µA).
- DC current supply: 0...24mA (resolution 1µA).
- DC voltage measurement: 0...30V (resolution 1mV).
- DC voltage supply: 0...1V (resolution 0,1mV).
- Illuminated two-line display with membran buttons for data logging, leakage rate, recording, ramp, deviation, simulation and triggering.
- Incl. RS232 interface with software.
- Completely hosed with open end 4/6.
- Illuminated 2poles switch for central on/ off.

Pressure Calibrator with Electrical Standard Signals		LE
284.001.000	0 - 2000mbar	
284.010.000	0 - 10bar	



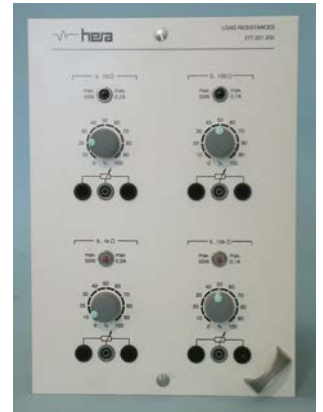
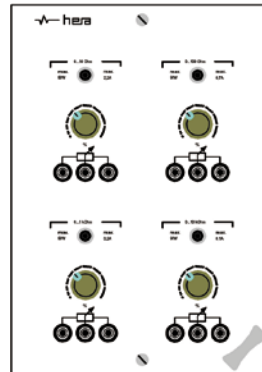
LS2000 LOAD RESISTANCE 50W

- Panel with four stepless adjustable load resistors 50W (test voltage: 2,5kV).
0-10 Ω / 50W; 2,2A
0-100 Ω / 50W; 0,7A
0-1k Ω / 50W; 0,2A
0-10k Ω / 50W; 0,1A
- Thermal circuit breaker for overload protection.
- Each resistor has two jacks for end taps and one jack for middle tap.

277.201.200

Load Resistance 50W

LE



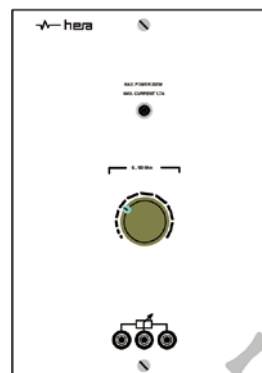
LS2000 LOAD RESISTANCE 300W

- Panel with stepless adjustable load resistor 300W (test voltage: 2,5kV).
- Thermal circuit breaker for overload protection.
- Two jacks for end taps and one jack for middle tap.

Load Resistance 300W

LE

277.202.100	0 - 100 Ω / 5,4A
277.202.200	0 - 100 Ω / 1,7A
277.202.300	0 - 1k Ω / 0,5A
277.202.400	0 - 10k Ω / 0,2A



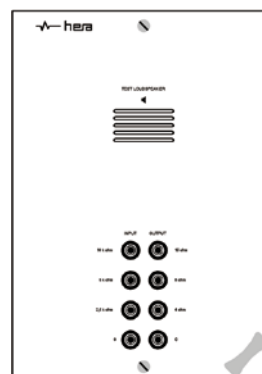
LS2000 TEST SPEAKER

- Test speaker 10Watt / 8 Ω .
(transmission range: 130 - 20.000Hz).
- Upstream connected transmitter for impedance matching (transmission range: 40 - 20.000Hz);
primary winding: 2k Ω / 4k Ω / 8k Ω / 16k Ω ,
secondary winding: 4 Ω / 8 Ω / 16 Ω .
- 4mm safety jacks for connection.

277.205.200

Test Speaker

LE





CHAPTER 13: ACCESSORY

- | | | | |
|------------|--|------------|--|
| 436 | Swivel Chairs Standard and ESD | 466 | Socket Strips |
| 438 | ESD Chairs LC | 467 | Digital Multimeters and Oscilloscopes |
| 439 | Stand-Up Seats | 468 | Laboratory Cords and Test Probes |
| 441 | Visitor Chairs, Industry Chairs and Stools | 470 | Cord Holders |
| 442 | Classroom Chairs | 471 | Rubber Mats |
| 443 | Swivel Chairs | 472 | ESD Mats and ESD Accessory |
| 444 | Pin Boards / Room Partitioners | 474 | ESD Monitoring |
| 446 | LED Workstation Lamp | 475 | ESD Floor |
| 448 | LED Workstation Lamp with Gooseneck | 476 | ESD Workshop Accessory |
| 450 | Multifunctional LED and Universal LED Flat Light | 477 | Tool Supports for Perforated Backplane |
| 451 | Lamps with Articulation Arm | 478 | Small Parts Magazine and Rotary Tower |
| 452 | Magnifier Lamps | 479 | Storage Bins and Sliding Nuts |
| 454 | Cantilever Arms PROFi | 480 | Electrician Vises and Accessory |
| 456 | Swivel Arm Series TSS | 481 | Mechanic Vises |
| 458 | Monitor Arm Clu and Plus | 482 | Soldering Smog Extraction |
| 460 | Compact Terminal with KK Modules | 485 | Test Hood and Test Cabin |
| 464 | STEP Socket System | | |

INDUSTRIAL SWIVEL CHAIR TEC

Characteristic for the ergonomic TEC series is the tapering backrest for a maximum of shoulder and arm mobility. The chair is a high quality product according to DIN 68 877 and holds the German GS sign.

Optionally the backrest can be equipped with handles so the upholstery does not need to be touched in dirt areas.

Seat: 49 x 36 x 44–60cm (WxDxH)
 Base: Ø 71cm
 Backrest: 44 x 55-62cm (WxH)
 Casters: soft, for hard floors

Standard or ESD:

ESD models are made with dissipative seat, backrest and casters as well as aluminium base. The chairs comply with the requirements of static dissipation according to DIN EN 61340-5-1:2001.

Counter Version (only BS, BS+, ST and AS):

High gas spring for a sitting height of 60 – 85cm. Height adjustable chromized footring with anti-slip surface and base with either glides or weight dependant blocking casters.



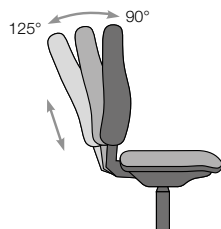
Counter version with chromed base and glides, backrest with handles

Swivel Chair TEC (please choose your color)	
181.710. B 00	TEC with Synchron Mechanics BS
181.710. B 05	TEC with Synchron Mechanics BS+
181.711. B 00	TEC with Synchron Technology ST
181.711. B 05	TEC with Synchron Technology AB
181.712. B 00	TEC with Weight Adaption AS
181.013.000	Multifunctional Armrests height - (10cm) and width adjustment (6cm)
181.719.010	Option Handles for Backrest
181.028.000	Option Counter Version with Glides
181.028.100	Option Counter Version with Casters
181.029.000	Option Aluminium Base (Ø 71 cm)
181.000.000	Option Hard Casters for Soft Floors (price neutral)

ESD Swivel Chair TEC (please choose your color)	
181.714. B 05	TEC ESD with Synchron Mechanics BS+
181.715. B 00	TEC ESD with Synchron Technology ST
181.715. B 05	TEC ESD with Synchron Technology AB
181.716. B 00	TEC ESD with Weight Adjustment AS
181.014.000	ESD Multifunctional Armrests, height - (10cm), width - (5cm) and depth adjustment (4 cm)
181.719.010	Option Handles for Backrest
181.028.000	Option Counter Version with Glides
181.028.100	Option Counter Version with Casters
181.000.000	Option Hard Casters for Soft Floors (price neutral)

Synchron Mechanics BS:

Seat - and backrest follow the movements of the sitting person synchron and in the right angle. Stepless adjustable backrest counter pressure (for 50 - 125kg body weight). Synchron movement arresting in 5 steps.

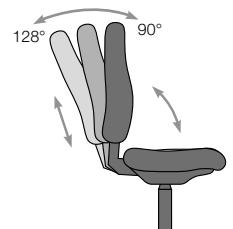


Synchron Mechanics BS+:

Same as synchron mechanics BS but additionally with seat tilt (-5°) and seat depth adjustment (5cm) due to sliding mechanics.

Automatic Weight Adjustment AS:

Automatic weight dependant counter pressure adjustment of the backrest, individually pre-selectable in two steps. Synchron movement of seat and backrest, selectable in 3 steps. Backrest arrestable in front position.



► B: Standard Fabrics (TEC and SHAPE)



► B: ESD Fabrics (TEC and SHAPE)



INDUSTRIAL SWIVEL CHAIR SHAPE

The swivel chair series SHAPE is a classic high quality chair which is available with 2 different backrest heights. It is characterized by extraordinary sitting comfort (very back-friendly) and a wide variety of mechanics. The chair is a high quality product according to DIN 68 877 and holds the German GS sign.

Seat: 47 x 37 x 43–59cm (WxDxH)
Base: Ø 71cm
Backrest: 47 x 51-57cm (WxH)
47 x 62-68cm (high backrest)
Casters: soft, for hard floors



Standard or ESD:

ESD models are made with dissipative seat, backrest and casters as well as aluminium base. The chairs comply with the requirements of static dissipation according to DIN EN 61340-5-1:2001.

Counter Version (only SM, PF and ST):

High gas spring for a sitting height of 60 – 85cm. Height adjustable chromized footring with anti-slip surface and base with either glides or weight dependant blocking casters.



ESD Chair SHAPE with high backrest

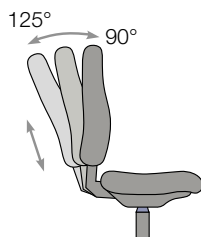
Swivel Chair SHAPE (please choose color)	
181.410. B 00	SHAPE wit Standard Mechanics SM
181.411. B 00	SHAPE with Permanent Contact Backrest PF
181.412. B 00	SHAPE with PF and High Backrest
181.413. B 00	SHAPE with Synchron Technology ST
181.414. B 00	SHAPE with ST and High Backrest
181.413. B 05	SHAPE with Synchron Technology AB
181.414. B 05	SHAPE with AB and High Backrest
181.013.000	Multifunctional Armrest height - (10cm) and width adjustable (6cm).
181.028.000	Option Counter Version with Glides
181.028.100	Option Counter Version with Casters
181.029.000	Option Aluminium Base (Ø 71 cm)
181.000.000	Option Hard Casters for Soft Floors (price neutral)

Standard Mechanics SM:

Backrest tilt mechanically adjustable and stepless arrestable.

Permanent Contact Backrest PF:

Backrest permanently follows the movement of the upper body part. Stepless adjustable backrest counter pressure between approx. 50 - 125kg.



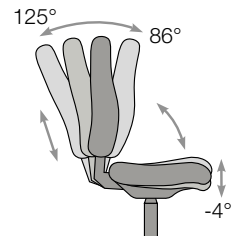
ESD Swivel Chair SHAPE (please choose color)	
181.410. B 05	SHAPE ESD with Standard Mechnaics SM
181.415. B 00	SHAPE ESD with Permanent Contact Backrest PF
181.416. B 00	SHAPE ESD with PF and High Backrest
181.417. B 00	SHAPE ESD with Synchron Technology ST
181.418. B 00	SHAPE ESD with ST and High Backrest
181.417. B 05	SHAPE ESD with Synchron Mechanics AB
181.418. B 05	SHAPE ESD with AB and High Backrest
181.016.000	ESD Multifunctional Armrest (not for SM) height - , width - and depth adjustment (see TEC)
181.028.000	Option Counter Version with Glides
181.028.100	Option Counter Version with Casters
181.000.000	Option Hard Casters for Soft Floors (price neutral)

Synchron Technology with 4° seat tilt ST:

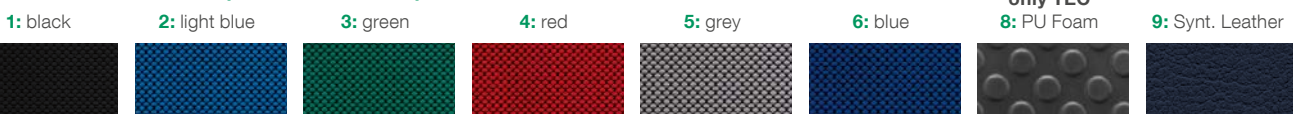
Seat and backrest follow the movement of the sitting person synchron in the right angle. Stepless, directly sensible adjustment of the backrest counter pressure between approx. 50 - 125kg.

Synchron Technology AB:

Like synchron technology ST, but additionally with automatic adjustment of the seat (tilting front -12°) and to the rear (tilting backrest up to 128°).



► B: Standard Fabrics (TEC and SHAPE)



► B: ESD Fabrics (TEC and SHAPE)



ESD SWIVEL CHAIR LC WORK

Hardwearing ESD swivel chair according to IEC 6140-5-1. Gas lift for sitting height adjustment and adjustable backrest. Durable upholstered seat and backrest. Cushion made of antistatic fabrics.

Available in two versions:

- Standard sitting height: 42 – 55cm
- Counter version with height adjustable aluminium footring for a sitting height of 58 – 83cm

ESD Swivel Chair LC Work	
181.110.101	Standard
181.110.201	Counter Version
181.110.901	Option Soft Casters for Hard Floors



ESD SWIVEL CHAIR LC COMFORT

Hardwearing ESD swivel chair according to IEC 6140-5-1. The chair is equipped with intelligent mechanic for various adjustments for best possible sitting comfort. Cushion made of antistatic fabrics.

Available in two versions:

- Standard sitting height: 42 – 55cm
- Counter version with height adjustable aluminium footring for a sitting height of 58 – 83cm

ESD Swivel Chair LC Comfort	
181.111.101	Standard
181.111.201	Counter Version
181.110.901	Option Soft Casters for Hard Floors



ESD SWIVEL CHAIR LC POLYURETHAN

The ESD swivel chair LC polyurethan according to IEC 6140-5-1. Solide and hardwearing material for rough applications.

Available in two versions:

- Standard sitting height: 42 – 55cm
- Counter version with height adjustable aluminium footring for a sitting height of 58 – 83cm

ESD Swivel Chair LC Polyurethan	
181.112.101	Standard
181.112.201	Counter Version
181.110.901	Option Soft Casters for Hard Floors



ESD SWIVEL CHAIR LC ERGONOMY

This swivel chair is especially developed for high ergonomics in ESD rooms. The seat and backrest can be arrested in position and thus it enables a prophylactic and comfortable sitting posture. Cushion made of antistatic fabrics.



ESD Swivel Chair LC Ergonomy	
181.115.101	Standard
181.115.201	Standard with High Backrest
181.115.901	Option Counter Version
181.115.902	Option Armrests
181.110.901	Option Soft Casters for Hard Floors



ESD CLEAN ROOM CHAIR SHAPE

Swivel chair for the utilization in sensitive ESD areas with cleanroom category 4 according to DIN EN ISO 14644- 1. Cushioned with dissipative artificial leather in black.

Seat: 47 x 37 x 43–59cm (WxDxH)
 Backrest: 47 x 51-57cm (WxH)
 47 x 62-68cm (high backrest)
 Casters: soft, for hard floors

Counter Version:

High gas spring for a sitting height of 59 – 84cm.
 Height adjustable chromized footring with anti-slip surface and base with either glides or weight dependant blocking casters.



ESD Cleanroom Chair SHAPE	
181.216.000	SHAPE with Synchron Technology ST
181.217.000	SHAPE with ST with High Backrest
181.028.000	Option Counter Version with Glides
000.000.000	Option Counter Version with Casters
181.000.000	Option Hard Casters for Soft Floors (price neutral)



ESD STOOL AND STAND-UP SEAT WITH CASTERS

Stepless adjustable sitting height and tilt adjustment.
 Stand-up seat with footring and load-dependant blocking casters.

Stool: sitting height: 45 - 62cm / base: Ø 53cm
 Stand-up: sitting height: 54 - 79cm / base: Ø 65cm
 Base: polished aluminium
 Seat Height: 33 x 40cm (WxD).
 Seat Shell: dissipative solid PU foam
 Casters: soft, for hard floors
 NOTE: only available with soft casters



ESD Stool and Stand-Up Seat with Casters	
181.436.000	ESD Stand-Up Seat
181.436.100	ESD Stool



MOBILE STAND-UP SEAT WITH FOOT RING

Stepless adjustable sitting height (55 - 80 cm) and sitting tilt.

Base: polished aluminium, Ø 65cm
 Seat: 37 x 36cm (WxD)
 Seat material: full Pu foam, washable
 Casters: load depending, soft casters for hard floors

Note: for safety reasons the stand-up seat is only available with soft casters.

181.435.000

Mobile Stand-Up Seat



STAND-UP SEAT ECONOMY

Stepless adjustable sitting height (55 - 81cm) and sitting tilt.

Solid black polyamid base or optionally polished aluminium base with glides.

Seat : 35 x 25cm (WxD)
 Backrest: 15cm

Stand-Up Seat ECONOMY

181.431.001	with polyamid base
181.431.002	with polished aluminium base



STAND-UP SEAT SITNESS

The Sitness technology breaks the inflexible connection between seat and floor and enables a dynamic sitting posture.

- Strengthening back and spine
- Eases the exposure on spinal disks
- Stimulates blood circulation and agility
- Sitting height: 57-77cm
- Seat dimensions: 35cm x 35cm (WxD)
- Cushion: anthracite fabrics

181.432.000

Stand-Up Seat Sitness



VISITOR CHAIR 4-LEG

- Visitor chair with four chromated tubular steel legs Ø 22 mm and plastic glides.
- Ergonomic formed upholstered backrest and contoured seat.

Visitor Chair 4-Leg (PE = 2pcs)	
181.311.B02	Visitor Chair, 4-Legs
181.311.002	Arm Rests (W: 61cm)



► B: Bezüge

1: schwarz



5: grau



8: blau



PAGWOOD OFFICE CHAIR

- Ergonomic shaped pagwood.
- Stepless adjustable sitting height with gas-lift.
- 5 beam base made of aluminium die-cast.
- Load-dependent blocking safety casters.
- Seat tilt adjustment: 0-18°
- Sitting height: 42-51cm
- Backrest: 53cm

Pagwood Office Chair	
182.303.101	Fabrics
182.303.201	Leather



Stoff



Leder



STOOL

Stool for production and workshop area.
Stepless adjustable height adjustment with gas-lift.
Stable polyamid base with load dependant braking twin casters for hard floors or glides.
Seat cushioned with artificial leather or solid beech.
Sitting height: 39-52cm.
Seat dimensions: Ø 35cm.

Stool	
181.211.101	Stool with Artificial Leather and Casters
181.211.102	Stool with Artificial Leather and Glides
181.211.103	Stool with Beech and Casters
181.211.104	Stool with Beech and Glides
181.000.000	Option: Hard Casters for Soft Floors (price neutral)



STUDENT CHAIR FLEX

- Ergonomic shaped blow-moulding seat in polypropylene.
- Grooved seat and backrest for comfortable air ventilation.
- Stepless adjustable sitting height with gas lift.
- Aluminium base with casters or feet.
- Sitting height: 43 - 51cm.

Please choose from available colors!

Student Chair FLEX	
182.260.C01	with Casters (sitting height + 2cm)
182.265.C01	no casters



► C: Color

1: anthracite



2: grey



3: green



4: red



5: blue



STUDENT SWIVEL CHAIR, WOOD

- Seat and backrest made of beech multiplex.
- Aluminium base with 5-beams and casters or feet.
- Stepless adjustable sitting height between 43 - 51cm.

Colours on demand!

Student Swivel Chair, Wood	
182.305.901	with Casters (sitting height + 3cm)
182.300.901	no casters



STUDENT CANTILEVER CHAIR

- Oval tube 35/15/2mm (stackable), exoxy coated (colours on demand).
- Sitting height: 46cm.
- Floor protecting plastic feet.
- Beech Type:
Seat and backrest made of beech multiplex.
- Air cushion Type:
Seat and backrest made of recyCable blow-moulding plastics.

Student Cantilever Chair	
181.100.901	Beech
181.150.901	Air Cushion



SWIVEL CHAIR ECONOMY

- High, contoured backrest with spinal forming. Height adjustable with arresting mechanism.
- Ergonomic seat with optimized support in the lumbar area.
- Synchron mechanics with body weight adjustment.
- Black polyamid base with load-dependant twin casters.
- Hardwearing fabrics in different colors.

Swivel Chair ECONOMY	
181.113.B02	Swivel Chair ECONOMY
181.020.002	Ring-Armrest
181.023.002	Height Adjustable Armrest
181.114.002	Option: Soft Casters for Hard Floors



Ring-Armrests

Seat height: 42-55cm
 Seat width: 45cm
 Seat depth: 43cm
 Backrest height: 57cm

SWIVEL CHAIR TOP PRO

- Stepless adjustable height with gas lift.
- Medically ergonomic backrest with integrated lumbar support, stepless height adjustable.
- Permanent contact mechanics for backrest tilt adjustment.
- Black polyamid base with load-dependant twin casters.
- Hardwearing fabrics in different colors.

Swivel Chair Top Pro	
181.113.B01	Swivel Chair Top Pro
181.018.001	Option: Polished Aluminium Base
181.023.001	Height Adjustable Armrest
181.114.001	Option: Soft Casters for Hard Floors



Height Adjustable Armrests

Seat height: 42-55cm
 Seat width: 45cm
 Seat depth: 46cm
 Backrest height: 45cm

SWIVEL CHAIR SYNCRO PRO

- Stepless adjustable seat height with gas lift.
- High, ergonomic backrest with spinal support.
- Supports the spinal discs and lumbar area.
- Point synchron mechanics for the synchron tilt adjustment of seat - and backrest. Individually to body weight adjustable spring tension.
- Black polyamid base with load-dependant twin casters.
- Hardwearing fabrics in different colors.

Swivel Chair Syncro Pro	
181.313.B01	Swivel Chair Syncro Pro
181.024.001	Height Adjustable Armrest
181.114.001	Option: Soft Casters for Hard Floors



Seat height: 45-55cm
 Seat width: 48cm
 Seat depth: 48cm
 Backrest height: 55cm

► B: Color (Economy, Top Pro, Syncro Pro)

1: black



2: anthracite



4: red



5: grey



6: dark blue



7: bordeaux



8: blue



SOUND PROTECTION / ROOM PARTITION



Noise Insulation:

- Max. available dimensions:
1000 x 1900mm or 1200 x 1700mm.
- Both sides with black, anthracite or blue fabrics.
- Sound protection with hard foam core.
- Surrounding anodized aluminium frame, width: 28mm and synthetic corner joints.
- Outer side with surrounding slot.
- ESD version with dissipative fabrics and earth-contact.

Partition Stand with Disk Foot in light grey:

- Synthetic disk foot, 400mm diameter.
- Round tube in standard height: 2000mm.
- Inc. 4pcs. mounting rings in black.

Partition Stand with T-Foot in light grey:

- T-foot, depth 530mm.
- Round tube in standard height: 2000mm.
- Inc. 4pcs. mounting rings in black.

Sound Protection / Room Partition

490.100.500	Partition Stand with Disk Foot, light grey
490.100.510	Partition Stand with T-Foot, light grey
490.110.900	Partition Element 1000 x 1800mm
490.110.905	ESD Partition Element 1000 x 1800mm



Partition Element with both types of feet in ESD



Partition with sound protection, integrated in perforated backplane

► Fabrics

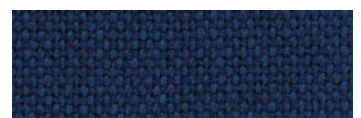
black



anthracite



blue



THE RIGHT LIGHT FOR EACH PROCESS

No matter if in laboratories, workshops or technical classrooms, workings have to be done very carefully. For this reason it is important, that the complete workspace is perfectly illuminated without any shade and without dazzling.

Choose the right light for your individual application on following pages.



PROFI LED WORKSTATION LAMP ST (STANDARD)

Slim design made of anodized aluminium profile with tiltable optics and thus perfect for the discreet installation to shelves or racks.

- Anodized aluminium profile with cooling fins.
- Housing 320° tiltable, ø 25mm.
- Triangled side parts (W: 95mm) for completely hidden cable runs, with switch.
- Incl. 24V supply.
- Continuous LED module strip with narrow LED pattern for an absolute homogeneous illumination of the complete bench top.

Version:

- Install-Unit firmly wired and supply unit integrated in instrument rack.
- Attachment-Unit firmly wired with supply unit integrated in extra housing, which is e.g. attached under shelf or bench top (for configurations without instrument rack).
- Add-On-Unit with plug connector and supply unit with housing (for retro-fitting).

Dimmer:

- Optional dimmable with microcontroller controlled PWM dimmer, brightness adjustable 0...100%.

Technical Details:

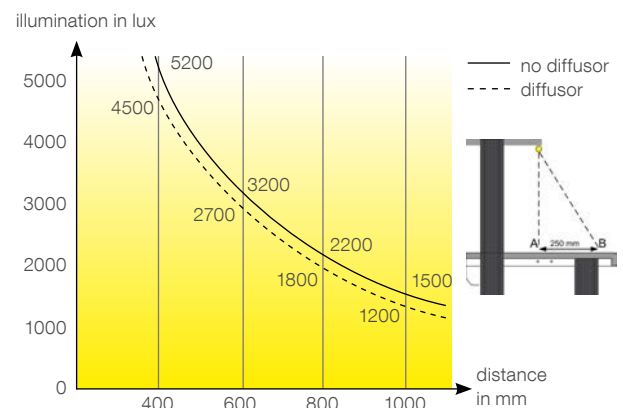
- Module length: 300mm, consisting of 28 OsramLEDs, gapless positioned, module power approx. 14,4W.
- Brightness: 2.000lm (>3.300 lux in a distance of 500mm).
- Emitting angle: 120°.
- Color reproduction Ra: typ. 85.
- Color temperature: 5.000K (neutral white).
- Color quality: Single binning according to ANSI (finely selected LEDs for a constant light temperature).



0...100 % DIMMABLE



320° TILTABLE



Housed LED Power Supply 365 x 68 x 38mm (WxDxH)



LED with Diffusor / LED without Diffusor

PROFI LED Workstation Lamp ST 456. B 61. M 0 A

B Width (Lumen)	M Version	A Type
1 500mm (2.000lm)	0 Installation-Unit	1 no Diffusor for a maximum of illumination
2 800mm (4.000lm)	2 Attachment-Unit	2 with Diffusor for homogeneous illumination without shading
3 1100mm (6.000lm)	1 Add-On-Unit	3 Waterproofed IP67, PU potted
4 1400mm (8.000lm)	5 Installation-Unit with Dimmer	
5 1700mm (10.000lm)	6 Attachment-Unit with Dimmer	
6 2000mm (12.000lm)	7 Add-On-Unit with Dimmer	
	8 IMOD Integration (controlled by IMOD) Control-Unit)	

PROFI LED WORKSTATION LAMP PR (PREMIUM)

Slim design made of anodized aluminium profile with tilt-able optics and thus perfect for the discreet installation to shelves or racks.

- Anodized aluminium profile with cooling fins.
- Housing 320° tiltable, ø 25mm.
- Triangled side parts (W: 95mm) for completely hidden cable runs, with switch.
- Incl. 24V supply.
- Continuous LED module strip with narrow LED pattern for an absolute homogeneous illumination of the complete bench top.

Version:

- Install-Unit firmly wired and supply unit integrated in instrument rack.
- Attachment-Unit firmly wired with supply unit integrated in extra housing, which is e.g. attached under shelf or bench top (for configurations without instrument rack).
- Add-On-Unit with plug connector and supply unit with housing (for retro-fitting).

2-Channel DIMMER with adjustable white:

- Dimmable brightness 0...100%.
- Stepless adjustable color temperature between 2.700K (warm white) to 5.500K (cold white).
- 2-Channel microcontroller controlled PWM dimmer.

Technical Details:

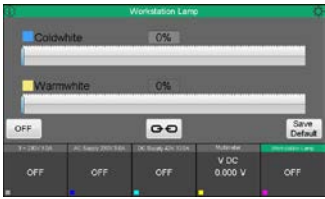
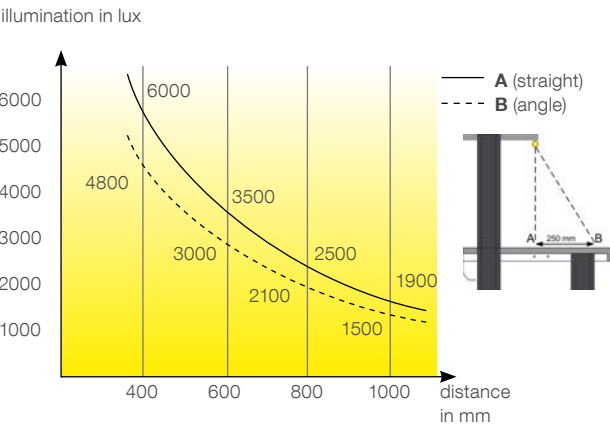
- Module length: 400mm, consisting of 42 Osram LEDs, gapless positioned, module power approx. 23W.
- Brightness: 3.000lm (> 4.500 lux in a distance of 500mm).
- Emitting angle: 120°.
- Color reproduction Ra: typ. 85.
- Color temperatue adjustable due to alternating arrangement of warm white and cold white LEDs.



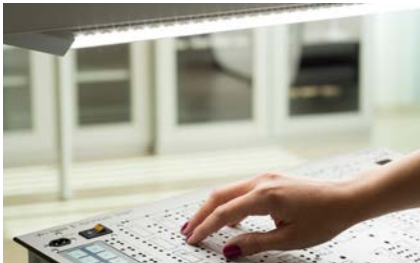
0...100 % DIMMABLE

320° TILTABLE

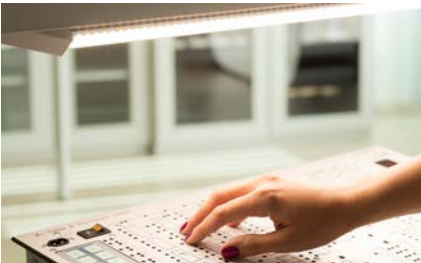
COLOR TEMPERATURE ADJUSTMENT



IMOD Integration
(completely controlled with IMOD Control-Unit)



adjustable color temperature: cold white (5.500K)



neutral white



to warm white (2700K)

PROFI LED Workstation Lamp PR 456. B 81. M 0 A				
B Width (Lumen)		M Version		A Type
1	600mm (3.000lm)	0	Installation-Unit	1 no Diffusor for a maximum of illumination
2	1000mm (6.000lm)	2	Attachment-Unit	2 with Diffusor for homogeneous illumination
3	1400mm (9.000lm)	1	Add-On-Unit	3 Waterproofed IP67, PU potted
4	1800mm (12.000lm)	8	IMOD Integration	

PROFI LED WORKSTATION LAMP WITH GOOSENECK

- The highly flexible gooseneck allows a precise positioning of the lamp.
- Housing with button for dimmer and color adjustment (only PR).
- Tiltable lamp body made of aluminium profile with cooling fins.
- Lamp body with LED module strip and diffuser in full length.
- Separate 24V power supply with integrated dimmer in sheet steel housing 365 x 68 x 38mm (WxDxH).

Version:

- Adapter for PROFI sleeve suitable for PROFI Swivel Arm (491.002.000).
- Bench clamp with max. span width of 90mm.
- Sliding adapter for the assembly to the ENERGY profile, aluminium board or multimedia support.
- Sliding mechanism for horizontal movement of the lamp across the full bench width.

Technical Details to the LED Lamp:

- Version ST see page 088
- Version PR see page 089



2-channel dimmer with stepless adjustable color temperature



0...100 % DIMMABLE



COLOR TEMPERATURE ADJUSTMENT



Type with PROFI sleeve and PROFI swivel arm



Type with bench clamp



Sliding adapter in ENERGY profile



Sliding adapter in multimedia support

PROFI LED Workstation Lamp with Gooseneck 456 LA 1 M S 2

LA Type (Length)

06	Standard ST L: 75mm (500lm)
16	Standard ST L: 150mm (1000lm)
26	Standard ST L: 300mm (2000lm)
08	Premium PR L: 133mm (1000lm)
18	Premium PR L: 266mm (2000lm)
28	Premium PR L: 400mm (3000lm)

M Type

1	Adapter with PROFI Sleeve
2	Bench Clamp
3	Sliding Adapter for ENERGY Profile
4	Sliding Adapter for Multimedia Support

S Gooseneck

4	500mm
5	800mm

DAZZLE PROTECTOR FOR LED WORKSTATION LAMP

Especially for height adjustable workstations, looking into the bright light when adjusting the bench height or the emitting angle of the lamp might be unavoidable. This can be prevented by installing the dazzle protector to the cooling fins of the lamp.

Dazzle Protector		456.0 BB .001
BB Width		
05	ST 500mm	14 ST/PR 1400mm
06	PR 600mm	17 ST 1700mm
08	ST 800mm	18 PR 1800mm
10	PR 1000mm	20 ST 2000mm
11	ST 1100mm	



OPTION HIDDEN CABLE RUN

- This option is for a milled slot in shelf or rack with light grey plastic cover for a hidden cable run.

Option Hidden Cable Run	458.000.000
-------------------------	-------------



HEIGHT ADJUSTABEL CABLE RUN IN ENERGY EXTENSION

- Milled slot with plastic cover in ENERGY extension for a hidden cable run between shelf / rack and ENERGY extension in adjustable height.
- Rear sided bore with cable gland in ENERGY extension.

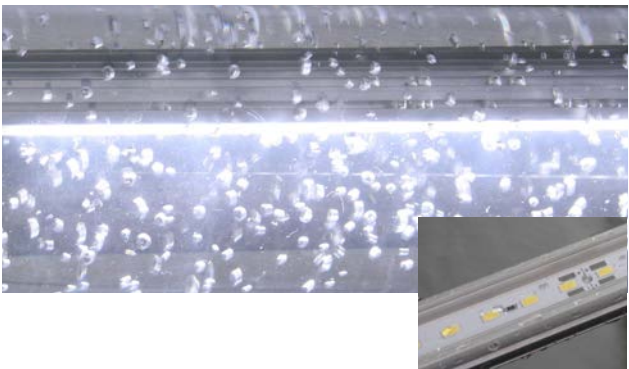
Cable Run in ENERGY Extension	458.000.100
-------------------------------	-------------



LED WORKSTATION LAMP IP67

This type of LED Workstation Lamp is fully water resistant and thus perfect for the installation in wet areas, e.g. machines with liquid cooling.

- The LED modules are fully casted inside the lamp housing with two component PU compound.



► see details for PROFI LED Workstation Lamp ST / PR

PROFI MULTIFUNCTIONAL LAMP LED

- Ergonomic LED lamp made of anodized aluminium profile, upper side with M8 slot.
- Height: 65mm; depth: 45mm.
- Homogeneous and shade-free illumination of the whole workbench due to microprism-optics.
- Light color: 5.500K (Ra: >85).
- Angle of illumination: 100°.
- Optionally with dimming function.
- Incl. switch and 3m power cable.
- With fixing brackets and tilting function.



PROFI Multifunctional Lamp LED 458.0 BB . A 01	
BB Width (Lamp)	A Type
05 500 mm (13W / 1575lm)	0 Standard
09 900 mm (25W / 3150lm)	1 Dimmable
12 1200 mm (34W / 4410lm)	
15 1500 mm (39W / 5040lm)	



UNIVERSAL LED FLATLIGHT

- Very flat and nicely shaped LED lamp made of anodized aluminium with integrated power supply and switch.
- Dimensions: 40 x 15mm (DxH).
- Homogeneous and dazzle-free illumination due to narrow LED pattern.
- Very durable 80mV LEDs (approx. 30.000 h).
- Energyefficient lamp: 1430 lm/m (80 lm/W).
- Color reproduction: Ra/CRI > 80.
- Light color: neutral white, approx. 4.000K.



Universal LED Flatlight	
299.106.045	Length 450mm / 8 Watt
299.106.060	Length 600mm / 10 Watt
299.106.090	Length 900mm / 15 Watt
299.106.120	Length 1200mm / 18 Watt



LINEAR LED STANDARD

- Power consumption 28W.
- Spring balanced aluminium arm incl. bench clamp and 3D swivel head, arrestable in flexible position.
- Homogeneous and glarefree illumination.
- Lamp head: 548 x 121mm (DxH).
- Optionally with dimming function or/ and adjustable light color (TW type).
- Light color: 5.500K. Type TW: 3.000 - 6.500K.
- Ra: >85 or >98 (type TW).



Linear LED Standard		299.101.3	V	A
V Version		A Type		
3	Linear LED Standard	0	Standard	
4	Linear LED Standard TW	5	Dimmable	

LINEAR LED ESD

The lamp offers high light quality and ergonomic handling.

- LED technology 14W with 12x LEDs.
- Light color: neutral white 4.000 K.
- Antidazzling due to special lamp optics.
- Lamp head (218x136x33mm) made of anodized aluminium and black plastics.
- Spring balanced arm (384 + 400mm) with 3D swivel head.
- In lamp head integrated membran button for on/ off and dimming function.
- Power supply (15W) with 3m power cord.
- ESD version in black.



Linear LED ESD		
299.101.321	Linear LED ESD	
299.103.200	Bench Clamp	

SPOT LIGHT MECHALED

Spot light for a pin-pointed illumination.

- Stepless positioning due to gooseneck arm.
- LED lamp with 8,5W (5.500K).
- Color reproduction Ra > 80.
- Spraywater protected aluminium head with heat extraction to the rear.
- Safety glass (ESG 3mm).
- Optionally with dimming function.



Spot Light MECHALED	
299.103.400	Spot Light MECHALED Standard
299.103.410	Spot Light MECHALED with Dimmer
299.103.490	Bench Clamp

MAGNIFIER LAMP ECO

Economic white magnifier lamp in LED technology.

- Spring balanced parallel arm in metal.
- Lamp head approx. Ø 225mm with integrated switch.
- 3 diopter lense Ø 127mm with flap.
- Incl. bench clamp (clamp width: 6,5cm).
- 6 Watt LED lamp with 90x LEDs, 6500K (daylight white), 1340 Lux in 35cm distance.

299.101.103

Magnifier Lamp ECO



MAGNIFIER LAMP LED

High quality magnifier lamp with spring balanced parallel arm in metal.

- 7W LED module with a total power consumption of 9,5W.
- Light color: 4.000 K.
- Color reproduction: Ra 80.
- Dimmable (0%-50%-100%).
- Lense Ø 127mm.
- 3-joint arm with a total reach of 1000mm.
- Incl. cloth cover and bench clamp.

Magnifier Lamp LED

299.101.201	3 Diopter
299.101.203	5 Diopter



MAGNIFIER LAMP LED DESIGN

Magnifier lamp with big lense for a comfortable inspection with both eyes. For increased magnification a second lense can be attached.

- 3,5 diopter crown glass lense (Ø 165mm).
- 3part arm with a total reach of 1000mm.
- Incl. liminaire, bench clamp and cloth cover.
- LED module 750lm (4.000K).
- Dimmable 10% - 100%.

Magnifier Lamp LED Design

299.101.701	Magnifier Lamp LED Design
299.101.790	Add-On Lense 4 Diopter
299.101.791	Add-On Lense 6 Diopter




LED MAGNIFIER LAMP VARIO IN ESD AND STANDARD



Robust lamp made in an elegant full metal design with flexibla arm and high quality light performance.

- Two semi-circular LED modules (11W total power).
- Light color: 4.000K.
- Color reproduction: Ra 80.
- Dimmable between 1 - 100%.
- 3 or 5 diopter crown glass lense (Ø 127mm).
- 3-joint arm with a total reach of 1050mm.
- Incl. automatic switch off after 4h or 9h.
- Incl. cloth cover and bench clamp.
- Color: Standard in light grey, ESD in black.

LED Magnifier Lamp VARIO		
299.101.730	3 Diopter, Standard	
299.101.750	5 Diopter, Standard	
299.101.735	3 Diopter, ESD	
299.101.755	3 Diopter, ESD	
940.710.700	3 Diopter, ESD, 110V (cUL)	




MAGNIFIER LAMP 3D IN STANDARD AND ESD



The magnifier lamp 3D offers a glarefree illumination from both sides or alternatively the 3 dimensional magnification with onesided light. This 3D technology is especially recommended for any works related to electrical circuit boards or other small and complicated items.

- Two LED modules 6W (dimmable 0-50-100%).
- Light color: 4.000K.
- Color reproduction: Ra 80.
- 3,5 or 5 diopter crown glass lense (175x108mm).
- 3-joint arm with a total reach of 1050mm.
- Incl. automatic switch off after 4h or 9h.
- Incl. cloth cover and bench clamp.
- Color: Standard in light grey, ESD in black.

Magnifier Lamp 3D		
299.101.501	3,5 Diopter, Standard	
299.101.503	5 Diopter, Standard	
299.101.402	3,5 Diopter, ESD	
299.101.403	5 Diopter, ESD	



BENCH TOP SLEEVE FOR LAMPS

- The sleeve is for integration into wooden bodies for holding lamps with Ø 12,7mm bolts.

299.101.210

Bench Top Sleeve



TOP MOUNT LAMP ADAPTER

- Aluminium die-casts with nylon inlays for soft support.
- With 5mm fixing holes.
- For lamps with bolt diameter Ø 12,7mm.
- Color: white, grey or black.

299.101.220

Top Mount Lamp Adapter



PROFI SLEEVE FOR SWIVEL ARM LAMP

- Lamp adapter for the PROFI swivel arm system.
- Plastic adapter Ø 20mm to 12,7mm.

491.005.200

Sleeve for Swivel Arm Lamp

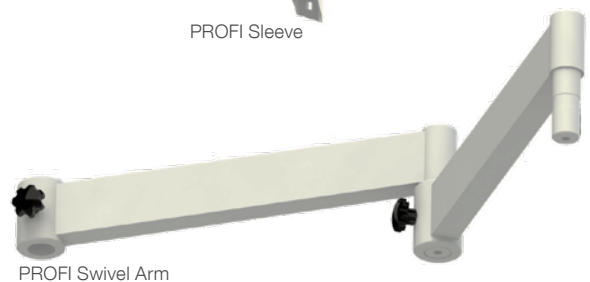
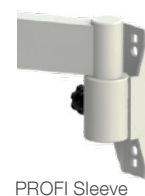


PROFI SWIVEL ARM AND SLEEVE

- Swivel arm with sleeve / bolt combination for heavy duty applications.
- Load capacity: max. 50kg.
- Modular combination of:
 - sleeve for the assembly to the PROFI profiles
 - swivel arm with bolt, sleeve, fixing screw and cord holder (available in different length)
 - different end pieces
- Durable, light grey powder coating.

PROFI Swivel Arm and Sleeve

491.002.000	PROFI Sleeve Ø 20mm
491.003.000	PROFI Swivel Arm, Reach: 250mm
491.004.000	PROFI Swivel Arm, Reach: 300mm
491.005.001	PROFI Swivel Arm, Reach: 500mm
491.002.100	Set 1: Sleeve + Swivel Arm, Reach 300mm
491.010.100	Set 2: Sleeve + Swivel Arms, Reach 300 + 250mm



TFT SUPPORT FOR PROFI SWIVEL ARM

- Hard wearing tiltable TFT support (+/- 20°) with 2 fixing screws and bolt (Ø 20mm) for acceptance in swivel arm.
- Adapter for Vesa standard (100 x 100mm and 75 x 75mm).
- Keyboard support 470 x 220 x 320mm (WxDxH).
- Swiveling mouse pad 200 x 200mm.
- Durable, light grey powder coating.

TFT Support and Keyboard Support	
491.028.101	TFT Support
491.028.111	TFT - and Keyboard Support
491.028.121	TFT - and Keyboard Support with Mouse Pad



NOTEBOOK - AND KEYBOARD SUPPORT FOR PROFI SWIVEL ARM

- Hard wearing tiltable TFT support (+/- 20°) for ergonomic use with 2 fixing screws and bolt (Ø 20mm) for acceptance in swivel arm.
- Tiltable support made of sheet steel, front with top edge.
- Notebook support 400 x 300mm (WxD).
- Keyboard support 470 x 200mm (WxD).
- Durable, light grey powder coating.



Notebook - and Keyboard Support	
491.028.320	Notebook Support
491.028.330	Keyboard Support
491.028.340	Option Mousepad for Keyboard Support



PROFI TFT ARM DUAL FOR TFT SUPPORT TSS

- TFT Arm with beam and 2x TFT supports in VESA standard. Ergonomic positioning of the monitors with gas-spring mechanics.
- TFT support with VESA standard 75/100 and quick fastener.
- Two TFTs can be positioned either vertically or horizontally, max. monitor weight 7kg.
- Reach: 447mm.
- Cord holder for clear cable arrangement.
- Sleeve for the fixation to the PROFI profiles.

491.057.620

PROFI TFT Arm Dual for TSS



PROFI TFT SWIVEL ARM TSS

- Nicely shaped swivel arms made of anodized aluminium.
- Adjustable ease of joint movements.
- Ball joint for the precise and flexible monitor positioning.
- VESA adapter 75/100 with quick fastener for easy and and free of tools monitor exchanges.
- TFT arm with cable clamps for clear cable runs.



Ball joint with quick fastener



Arm with cable clamp



491.057.100



491.057.200 / 210



491.057.300



491.057.400 / 410 / 420 / 430

PROFI TFT Support TSS

491.057.100	only Support, Reach: 105mm; max. 15kg Load
491.057.200	Single Arm; Reach: 250mm; max. 15kg Load
491.057.210	Single Arm; Reach: 325mm; max. 15kg Load
491.057.300	Double Arm; Reach: 450mm; max. 10kg Load
491.057.400	Double Arm; Reach: 505mm; max. 15kg Load
491.057.410	Double Arm; Reach: 700mm; max. 10kg Load
491.057.420	Double Arm; Reach: 800mm; max. 10kg Load
491.057.430	Double Arm; Reach: 900mm; max. 10kg Load



TFT SWIVEL ARM TSS LITE

- 2-part swivel arm with 415mm reach.
- Load capacity: max. 5kg.
- Swivel - and tiltable VESA adapter 75/100.
- Light grey (alternatively in white).

491.056.310	Swivel Arm TSS LITE
-------------	---------------------



TABLET HOLDER FOR TSS SWIVEL ARM

- The tablet holder can be plugged to the swivel arm TSS or TSS Lite.
- Suitable for 7" to 10" tablets (clamping length: 160 - 300 mm).

491.056.900	Tablet Holder for TSS Swivel Arm
-------------	----------------------------------



NOTEBOOK & KEYBOARD SUPPORT FOR TSS SWIVEL ARM

- Double arm TSS made of anodized aluminium.
- Swivel arm with cord holder for a clearly arranged cable run. Load capacity: max. 10kg.
- Support swivel - and tiltable in 25° angle.
- Notebook support (404 x 288mm) for regular and big notebooks, with clamp holders.
- Keyboard support (640 x 172mm) for keyboard and mouse.

Swivel Arm TSS with Notebook & Keyboard Support	
491.057.500	TSS Notebook Support; Reach: 589mm
491.057.600	TSS Keyboard Support; Reach: 528mm
491.057.610	TSS Keyboard Support; Reach: 728mm



491.057.500



491.057.600 / 610

FOOT FOR TSS SWIVEL ARM

- Anodized aluminium foot with 4 surrounding slots.
- Length: 445mm.
- Diameter: 51mm.
- Prepared for the attachment of the swivel arm TSS or TSS LITE in variable height.
- Incl. 2 cable clamps.
- Bench clamp (opening: 5 - 70mm).
- The foot can be mounted either firmly or movably from side to side in the slots of the aluminium bench racks or PROFI cross profile.

Foot for TSS Swivel Arm	
491.057.000	with Bench Clamp
491.057.050	firmly mounted in Profile Slots
491.057.900	movable mounted in Profile Slots



TFT SWIVEL ARM CLU HEIGHT VARIABLE

- Swivel arm with gas-pressure adjustment for the ergonomic and variable positioning of the monitor.
- For monitors between 2 - 7kg.
- Rotatable with adjustable end - and arresting position.
- VESA adapter 75/100 with quick-connector for an easy monitor installation, no tools required.
- Incl. bench clamp and assembly set.



TFT Swivel Arm Clu	
491.157.100	TFT Swivel Arm Clu; reach: 283mm
491.157.200	TFT Swivel Arm Clu; reach: 433mm
491.157.300	TFT Swivel Arm Clu; reach: 457mm
491.157.000	Adapter for PROFI Extensions



TSS MODULE -THIN CLIENT HOLDER

- For fixation to VESA adapter or TSS foot.
- PC width: 35 - 53 mm; PC weight: max. 7,5 kg.
- Black support, installed between VESA adapter and TFT.

491.056.950	TSS Module - Thin Client Holder
-------------	---------------------------------



TFT SWIVEL ARM PLUS

TFT Swivel Head PLUS:

- Inclinaible, tiltable and rotatable; silver colored.
- Reach: 130mm; load: 15kg.
- For the assembly to the PROFI extensions.

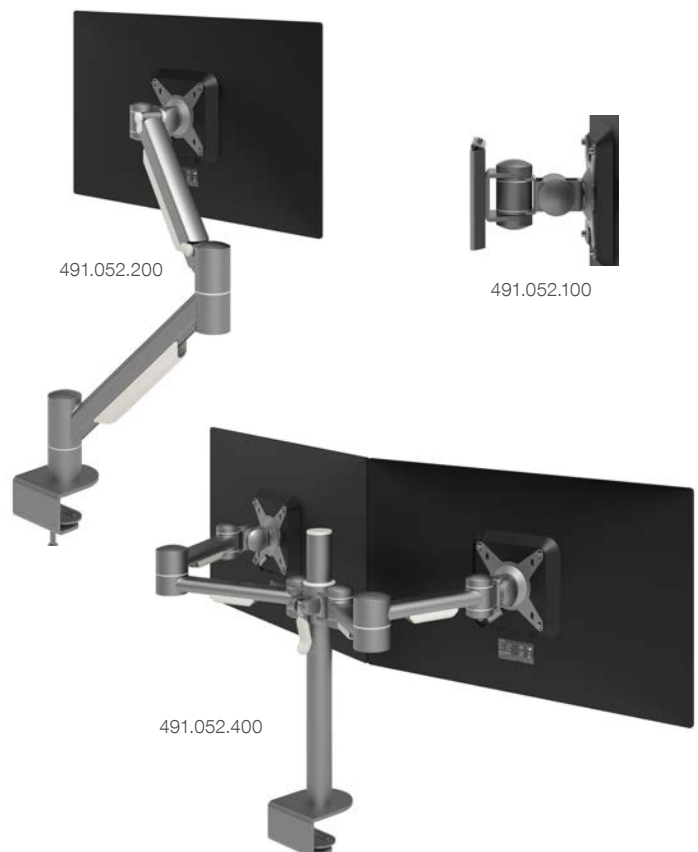
TFT Swivel Head PLUS height adjustable:

- Dynamic height adjustment due to springed jib.
- For flat screens between 2 - 8kg.
- Max reach: 557 - 627mm.
- Incl. bench clamp (5 - 40mm).

TFT Swivel Head PLUS for 2 monitors:

- Two double swivel arms (257 + 160mm).
- Height adjustment with clamp handle (295mm).
- Inclinaible: +90°/-90°, tiltable: +90°/-90°, rotatable 360°.
- Load capacity: max. 15kg per monitor.
- Incl. bench clamp (5 - 40mm).

Swivel Arm System PLUS	
491.052.100	TFT Swivel Head PLUS
491.052.200	TFT Swivel Head PLUS Height Adjustable
491.052.400	TFT Swivel Head PLUS for 2 Monitors
491.052.900	PROFI Adapter for Swivel Arm PLUS



THE DELICATE COMPACT TERMINAL FOR VARIOUS APPLICATIONS

This small-dimensioned system suits lots of different applications. Due to its high rigidity, the flexible length and the mounting slot it can be installed on the bench top, in the cable tray, under or in the shelf and even between the PROFI extensions. The compact terminal is unbeatable in its countless applications if only sockets, jacks and protection is required.



COMPACT TERMINAL

- Aluminium channel with durable, light grey powder coating and side covers.
- Front side prepared for the flexible acceptance of modules in cm raster (=10mm).

Straight Version:

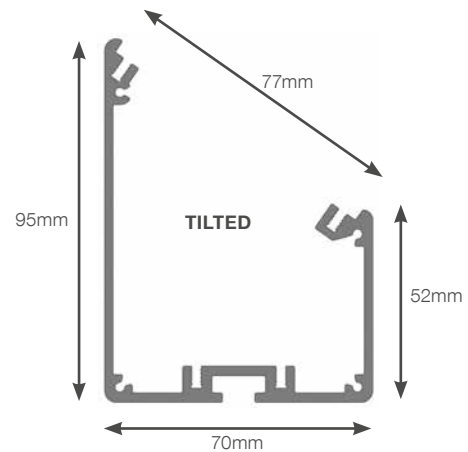
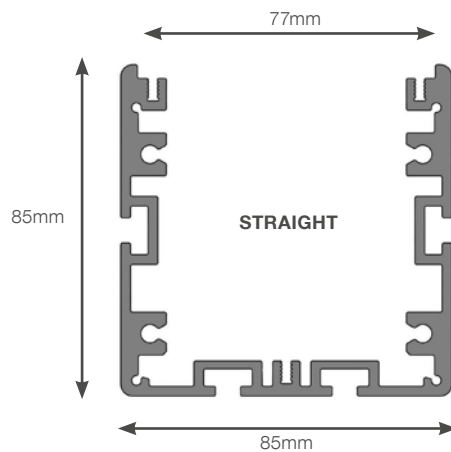
- Applicable for multimedia support, cable tray or installation to the PROFI profile.

Tilted Version:

- Applicable for the assembly on the bench top, for the multimedia support with face down sockets, for shelf-incorporation, in cable tray or installation to the PROFI profile.



A Version



M Installation



1 on bench top



2 below shelf



3 with brackets
4 between profiles

Compact Terminal 29 A BBB M 00

A Version

BBB Width

M Installation

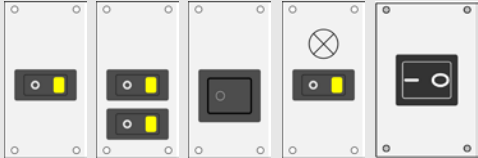
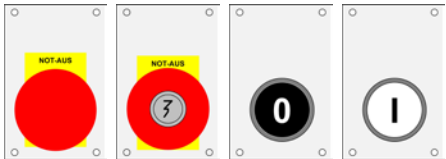
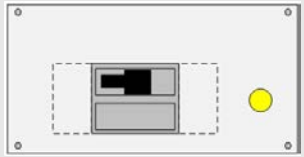

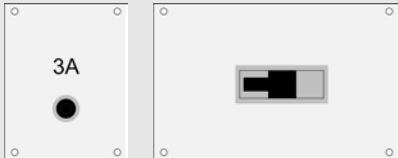
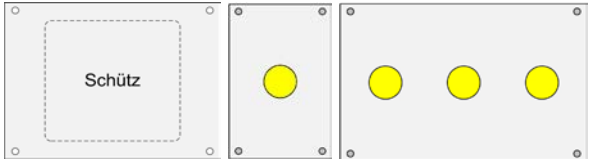
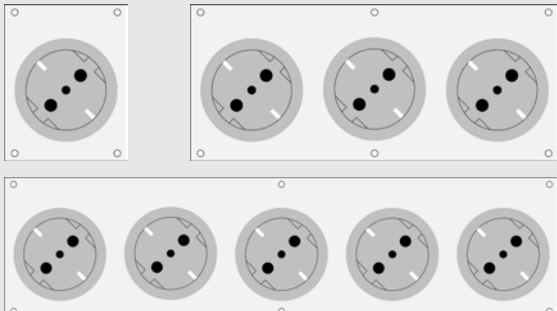
7	Compact Terminal tilted	10 - 230 cm
8	Compact Terminal straight	

1	Installed on the Bench Top (equipable width -1cm)
2	Installed under Shelf (equipable width -1cm)
3	Brackets at the Sides (equipable width -9cm)
4	Assembly between the Extensions (equipable width cm)

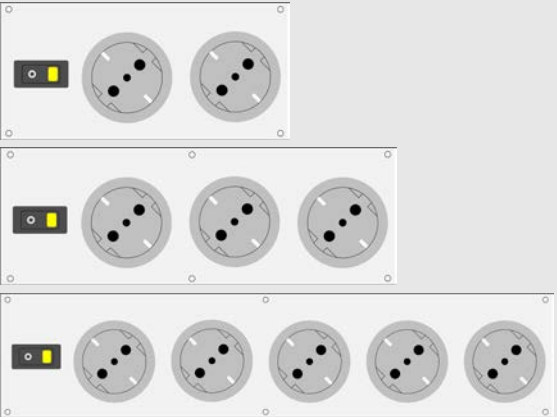
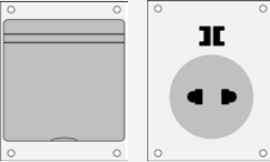
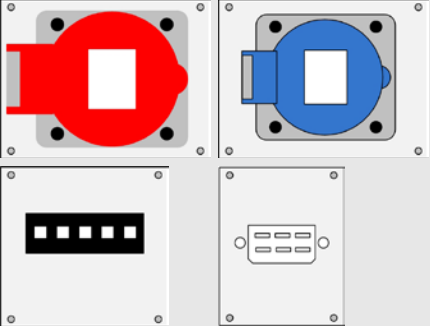
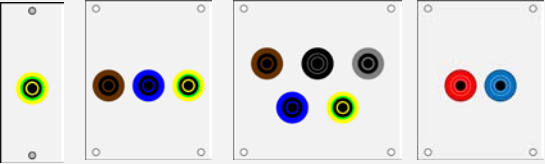
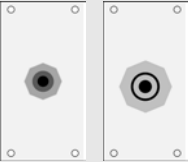

297.000.000 : Customized Cable Outlet

KK MODULES

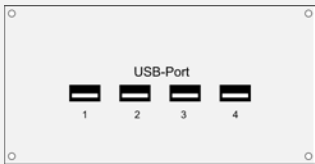
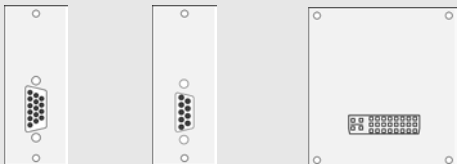
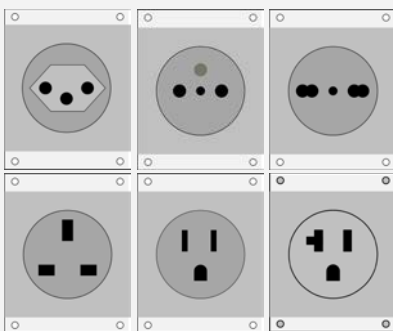
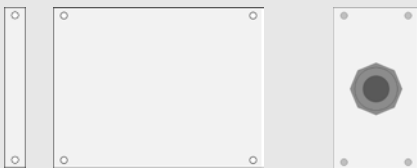
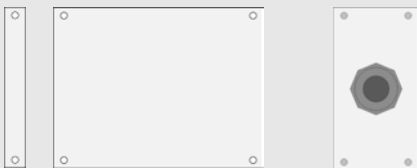






- The modules for the compact terminal are completely wired and installed and 100% tested on function and safety.
- Front panels are made of durable 3mm plastics in grey.
- Module height: 70mm.
- If desired all front panels can be made in aluminium with durable light grey powder coating and earth connection of each front panel.
- Configurations with circuit breakers are only applicable in combination with reversal polarity protection.

Art-No.	Module	Width	Picture
200.010.101 200.011.101 200.012.101 200.010.201 200.013.101	Illuminated 2poles Switch 16A <ul style="list-style-type: none"> 1fold 2fold 1fold, no illumination Switch with Lamp Symbol DC Switch 1fold 24V/10A 	4cm 4cm 4cm 4cm 5cm	
200.020.101 200.021.101 200.025.101 200.026.101	<ul style="list-style-type: none"> Emergency Off / Rotation Release Emergency Off / Key Release Off Button (NCC) On Button (NOC) 	5cm	
200.052.XX1	Automatic Circuit Breaker with Undervoltage Release for Emergency Off Circuit and Voltage Control Lamp <ul style="list-style-type: none"> XX = Tripping Current Note: 1poles circuit breaker is only applicable for reverse protected plugs!	15cm	
200.040.101 200.041.101 200.041.701 200.041.401	<ul style="list-style-type: none"> RCD 2poles 25A / 30mA RCBO 16A/10mA RCBO 13A/10mA RCBO 10A/10mA (over - and residual current protection) 	14cm	
200.050.XX1 200.051.XX1	<ul style="list-style-type: none"> Thermomagnetic fuse XX = Tripping Current (1A - 16A) Automatic Circuit Breaker B-Characteristics XX = Tripping Current 	6cm 14cm	
200.060.101 200.061.101 200.063.101	<ul style="list-style-type: none"> Miniature Contactor 1x Phase Control Lamp (L) 3x Phase Control Lamp (L1, L2, L3) 	10cm 5cm 12cm	
200.101.101 200.102.101 200.103.101 200.104.101 200.105.101	<ul style="list-style-type: none"> 1fold PE Socket Type F 2fold PE Socket Type F 3fold PE Socket Type F 4fold PE Socket Type F 5fold PE Socket Type F 	6cm 12cm 18cm 24cm 30cm	

KK MODULES

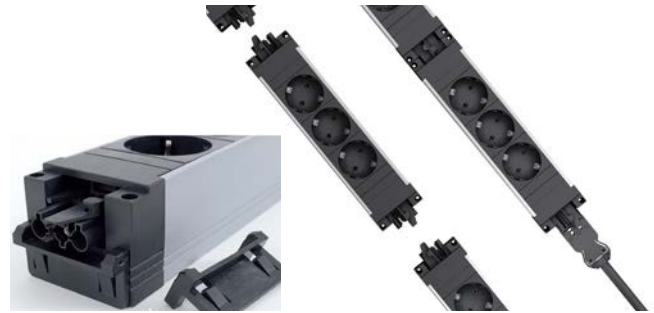
Art-No.	Module	Width	Picture
200.111.101 200.112.101 200.113.101 200.114.101 200.115.101	Modules with Illuminated 2poles Switch: <ul style="list-style-type: none"> 1fold PE Socket Type F 2fold PE Socket Type F 3fold PE Socket Type F 4fold PE Socket Type F 5fold PE Socket Type F International types on page 074 (others on demand!)	10cm 16cm 22cm 28cm 34cm	
XXX.XXX.201 200.150.101	<ul style="list-style-type: none"> Optionally with Flap for PE Sockets Sockets for Floating Voltage and External Isolating Transformer 	6cm	
200.205.101 200.203.101 200.205.201 200.205.301	<ul style="list-style-type: none"> CEE Socket 5poles 16A red CEE Socket 3poles 16A blue Winsta Socket 5poles 16A FSH Socket 5poles 16A Other colors and types on demand!	10cm 10cm 8cm 6cm	
200.301.101 200.303.101 200.305.101 200.302.101 200.302.201	4mm Safety Jacks <ul style="list-style-type: none"> PE Jack 3poles (L, N, PE) 5poles (L1, L2, L3, N, PE) Output for External DC Sources (+/-) Output for External AC Sources (L/N) 	2cm 6cm 8cm 6cm 6cm	
200.401.101 200.401.401 200.401.201 200.401.301	Quick Connectors for Pressured Air <ul style="list-style-type: none"> for Hose 6/4 for Hose 8/6 NW 5 NW 7,2 	4cm	
200.551.101 330.810.500 330.810.400 330.810.3F0 330.830.200 330.830.400 330.830.500 330.840.200	Module with Keystone Adapter Suitable Keystone: <ul style="list-style-type: none"> RJ45 Coupling CAT 6 (angled) RJ45 - Cut / Grip Technology, shielded CAT 6 RJ45 - Cut / Grip Technology, shielded CAT 6 (F=0: black; 1: red; 2: green; 3: yellow; 4: blue) USB2.0 A-Socket > A-Plug with Cable USB3.0 A-Socket > A-Plug with Cable USB3.0 C-Socket > C-Plug with Cable HDMI Socket > HDMI Plug with Cable 	4KK	

KK MODULES

Art-No.	Module	Width	Picture
200.524.101 200.525.101	<ul style="list-style-type: none"> USB-Port 4fold 2.0 USB-Port 4fold 3.0 Note: USB-Ports with external Power Unit	15cm 15cm	
200.541.101 200.542.101 200.543.101	<ul style="list-style-type: none"> Sub-D Socket 15poles VGA Sub-D Socket 9poles RS232 DVI-I-Socket 	3cm 3cm 7cm	
XXX.XXX.401 XXX.XXX.501 XXX.XXX.601 XXX.XXX.701 XXX.XXX.801 XXX.XXX.901	International Types (choose version from type F modules) <ul style="list-style-type: none"> Type J - Swiss (10A) Type E - Franco/ Belgian (16A) Type L - Italian (10A) Type G - British (13A) Type B - NEMA 5-15R 125V / 15A Type B - NEMA 6-20R 250V / 20A Other types on demand!	6cm	
200.000.XX1	<ul style="list-style-type: none"> Blank Panle XX = width	cm	
200.800.100 200.800.101 200.810.101	<ul style="list-style-type: none"> Cable Gland M16 Cable Gland M20 Cable Gland M25 	4cm 4cm 4cm	
291.001.030 200.835.000	<ul style="list-style-type: none"> 3m Power Cord (3x 1,5mm²) 5m Power Cord (3x 1,5mm²) with open end 	1cm	
200.835.100 291.001.256	<ul style="list-style-type: none"> 3m Power Cord (3x 1,5mm²) with Type F Plug with Type G Plug 	1cm	
291.001.130 200.855.000	<ul style="list-style-type: none"> 3m Power Cord (5x 2,5mm²) 5m Power Cord (5x 2,5mm²) with open End 	2cm	
200.855.100 291.001.400	<ul style="list-style-type: none"> 5m Power Cord (5x 2,5mm²) with CEE Plug 16A red 5m Power Cord (3x 1,5mm²) with CEE Plug 16A blue 	2cm	
200.XXX.XX5	<ul style="list-style-type: none"> Front Panels made in aluminium, durable powder coated and earthed 		
200.XXX.XX6	<ul style="list-style-type: none"> IT Socket (red frame), with separte input terminal for integration into the IT networks (not connected to circuit breaker) 		

MODULAR POWER SYSTEM STEP

- The STEP power system is available in aluminium - or plastic profile.
- More elements like PE sockets and circuit breakers can be modularly interconnected.
- STEP modules have Wieland GST18 in- and output plugs for modular configuration.
- Available for type J, E, G and L (P40). Please ask.



STEP Sockets in Plastic Profile Type F

293.336.600	3fold PE Socket, 220mm
293.336.601	3fold PE Socket, red, 220mm
293.336.604	4fold PE Socket, 263mm
293.336.626	5fold PE Socket, 305mm

STEP Sockets in Aluminium Profile Type F

293.336.039	3fold PE Socket, 220mm
293.336.067	3fold PE Socket, red, 220mm
293.906.014	4fold PE Socket, 263mm
293.906.003	3fold PE Socket with Socket Switch, 263mm
293.906.031	3fold PE Socket with Output Off Switch, 263mm
293.906.000	2fold PE Socket + 1x Keystone Adapter, 220mm
293.906.001	2fold PE Socket + 2x Keystone Adapter, 263mm
293.336.065	RCBO, 2poles B16A, Residual Current: 30mA, 220mm
293.336.004	Overvoltage Protection 2kV with Mains Filter 30MHz, 220mm

STEP Accessory

293.375.038	Power Cable H05VV-F3G 1,5mm², 2m
293.375.003	Power Cable H05VV-F3G 1,5mm², 3m
293.940.097	Stainless Steel Mounting Plates, pair
293.940.096	Stainless Steel Brackets, pair

Keystone Adapter and Keystone

293.917.001	Adapter for 1 Keystone
293.917.000	Adapter for 2 Keystones
Suitable Keystones:	
330.800.000	Blind Cover
330.810.100	RJ45 Coupler CAT 5e
330.810.200	RJ45 Coupler CAT 6a
330.810.400	RJ45 Socket > firm connection CAT 6
330.830.200	USB2.0 A-Socket > A-Plug with Cable
330.830.400	USB3.0 A-Socket > A-Plug with Cable
330.830.500	USB3.0 C-Socket > C-Socket with Cable
330.840.200	HDMI Socket > HDMI Plug with Cable



more **Keystones** in chapter 10



SOCKET UNIT FOR FURNITURE INTEGRATION

- Steel frame (248 x 151mm) with solid flap-mechanism, snapping into end positions (integration depth: 56mm).
- Integrated brush strip for cable outlet in closed position.
- Solid clamp fastening for bench tops between 18 - 30mm.
- Available for type J, E, G and L (P40). Please ask.



Socket Unit Step for Furniture Integration

293.338.025	Frame with Flap, silver (sim. RAL9006)
293.338.026	Frame with Flap, anthracite (sim. RAL7016)
293.911.001	Frame with Flap, white (sim. RAL9010)
293.333.107	Element with 3x PE Sockets, Type F
293.912.003	Element with 2x PE Sockets, Type F + 1x Keystone Adapter
293.912.002	Element with 1x PE Sockets, Type F + 2x Keystone Adapter



19" SOCKET STRIP 1HE

- 19" socket strip prepared for integration in 19" racks.
- Detachable fixing brackets allow various integration possibilities, e.g. recessed integration.
- Black power cord H05VV-F 3G1,50mm² (length 2m) with angled PE plug, type F.
- Available for type J, E, G and L (P40). Please ask.



19" Socket Strip Type F, 1HE

293.405.400	5fold with Switch, Overvoltage Protection, Mains - and Frequency Filter	293.407.300	7fold with Switch and Overvoltage Protection (optic status indication)
293.406.500	6fold with RCD 30mA, 2poles	293.408.200	8fold with Switch
293.406.600	6fold with Automatic Circuit Breaker, B16A, 2poles	293.409.100	9fold, no Switch

SOCKET STRIP INDUSTRY

- High quality socket strips in silver-colored plastic housing with black PE sockets, type F (45° position), with mounting tongues.
- Black power cable H05VV-F 3G1,50mm² (length 2m) with angled plug.
- Dimensions: 70 x 45mm (WxH).
- Available for type J, E, G and L (P40). Please ask.



Socket Strip Industry, Type F

293.204.100	4fold with Switch (L: 355mm)	293.209.100	9fold with Switch (L: 570mm)
293.206.100	6fold with Switch (L: 440mm)	293.212.100	12fold with Switch (L: 700mm)

FLEX SOCKET STRIP

- Solid power strip in screw-fixed plastic housing, sides.
- Power cord H05VV-F3G 1,5mm².
- Optionally with illuminated 2poles switch.
- Dimensions: 56 x 41mm (WxH).
- Other standards on demand.



FLEX Socket Strip, Type F

293.630.000	3fold, white, no Cable (L:185)	293.660.000	6fold, black, no Cable (L:340)
293.630.001	3fold, black, no Cable (L:185)	293.660.100	6fold, white with 1,5m Cable (L:340)
293.630.100	3fold, white with 1,5m Cable (L:185)	293.660.101	6fold, black with 1,5m Cable (L:340)
293.630.101	3fold, black with 1,5m Cable (L:185)	293.660.300	6fold, white with 3m Cable (L:340)
293.630.300	3fold, white with 3m Cable (L:185)	293.660.301	6fold, black with 3m Cable (L:340)
293.630.301	3fold, black with 3m Cable (L:185)	293.660.500	6fold, white with 5m Cable (L:340)
293.630.302	3fold, red with 1,5m Cable (L:185)	293.660.501	6fold, black with 5m Cable (L:340)
293.630.500	3fold, white with 5m Cable (L:185)	293.661.000	6fold, white, no Cable and Switch (L:340)
293.630.501	3fold, black with 5m Cable (L:185)	293.661.100	6fold, white with 1,5m Cable and Switch (L:340)
293.640.000	4fold, white, no Cable (L:288)	293.661.101	6fold, black with 1,5m Cable and Switch (L:340)
293.640.100	4fold, white with 1,5m Cable (L:288)	293.661.300	6fold, white with 3m Cable and Switch (L:340)
293.640.101	4fold, black with 1,5m Cable (L:288)	293.661.301	6fold, black with 3m Cable and Switch (L:340)
293.641.000	4fold, white, no Cable with Switch (L:288)	293.661.500	6fold, white with 5m Cable and Switch (L:340)
293.641.100	4fold, white with 1,5m Cable with Switch (L:288)	293.661.501	6fold, black with 5m Cable and Switch (L:340)
293.641.101	4fold, black with 1,5m Cable with Switch (L:288)		

Options

293.600.000	Profile Adapter for FLEX Socket Strip
293.600.010	Option with System Plug for Integration into Bench Wiring
293.600.020	Option Loosely Supplied Plug

International Standards

293.660.204	6fold with Overvoltage Protection 10A, Type J (Swiss)
293.642.100	4fold, white, 250V, 13A, Type G (British), 1m Power Cord
293.660.900	6fold, white with Switch, Type B (NEMA 5-15 / US), 0,61m Power Cord



ALUMINIUM SOCKET STRIP

- High quality socket strip in aluminium housing.
- Power cord H05VV-F3G 1,5mm² (length 3m).
- With illuminated 2poles switch.

Aluminium Socket Strip, Type F

292.600.000	6fold
292.600.100	6fold with 2x USB Chargers (max. 3,10A)
292.600.200	6fold (3x 2fold switchable)
292.000.000	Profile Adapter for Aluminium Socket Strip



DIGITAL MULTIMETER AND LCR METER

Digital Multimeter with Bargraph

- 23mm, 3³/₄ digit LCD display with background illumination and 41-segment bargraph.
- Automatic and manual range selection.
- Min. -, max.- and data hold.
- Hz/ duty function and relative value.
- DCV 40/400mV/4/40/400/600V; 10µV.
- ACV 40/400mV/4/40/400/600V; 10µV.
- DCA 400µA/4/40/400mA/10A; 0,1µA.
- ACA 400µA/4/40/400mA/10A; 1µA.
- Ohm 400Ω/4/40/400kΩ/4/40MΩ; 0,1Ω.
- Capacity: 40/400nF/4/40/400µF; 10pF.
- Frequency: 100/1000Hz/1/10/100kHz/1/10MHz; 0,1Hz.
- Temperature: -20 ... +1000°C; 1°C (K-probe).
- Fast continuity - and diode test.
- Safety: EN 61010-1; CAT III 600V.
- Dimensions: 95 x 190 x 45mm.
- Incl. holster; test leads, K-thermocouple, battery and manual.

LCR Meter (incl. DMM)

- 3 1/2 digit LCD display with background illumination.
- Max - and data hold function.
- DCV 200mV/2/20/200/600V; 100µV.
- ACV 200mV/2/20/200/600V; 100µV.
- DCA 20µA/2/200mA/10A; 10nA.
- ACA 20µA/2/200mA/10A; 10nA.
- Frequency range: 40 - 400Hz.
- Ohm 200W/2/20/200 kW/2/20/2000 MW; 0,1W.
- Capacity: 20/200nF/2/100µF; 10pF.
- Inductivity: 2/20/200mH/20H; 1µH.
- Frequency: 2/20/200kHz/2/10MHz; 1Hz.
- Temperature: -40 ... +1000°C.
- Transistor test, diode - and continuity test with accoustic signal.
- Dimensions: 90 x 195 x 40mm.
- Incl. test leads, multifunction adapter and temperature probe.

► other brands or types on demand

Digital Multimeter and LCR Meter	
590.100.003	Digital Multimeter
590.105.500	LCR Meter (incl. DMM)



2-CHANNEL DIGITAL STORAGE OSCILLOSCOPE

Series of digital storage oscilloscope with high resolution color display, background illumination, high bandwidth and high sampling rate.

- 2 Channels.
- 8" TFT color display (800 x 600 pics; 65536 colors).
- USB port for real time data transmission or reading of internal memory.
- VGA output for external monitor.
- LAN interface for remote access via networks.

- Autoset - and autoscale function.
- Large internal memory for 15 wave forms.
- 20 automatic measuring modes and FFT function.
- PASS/FAIL function.
- Safety: EN 61010-1; CAT II.
- Dimensions: 355 x 178 x 118mm.
- Incl. 2x BNC cables, PASS/FAIL adapter, USB cable, mains cable, 2x probes, carrying case and manual.

► other brands or types on demand

2-Channel Digital Storage Oscilloscope	
590.126.500	30MHz / 125MSa/s p. Channel
590.130.500	70MHz / 500MSa/s p. Channel
590.135.500	100MHz / 500MSa/s p. Channel
590.140.500	200MHz / 1GSa/s p. Channel



TEST LEADS WITH 2MM LAMELLA PLUG

- Highly flexible laboratory cables.
- Both sides with stackable 2mm lamella plug.
- Rated current: 10A.
- Max. contact voltage for 2mm test leads without insulation: $30V_{AC}/60V_{DC}$.



Test Leads 2mm		299.5 A L .0 FF							
A Type	L Length				FF Color				
2 Test Lead	0 7,5cm	6 45cm			02 black	06 red	10 green	14 grey	
4 Safety Test Lead	2 30cm	8 60cm			04 brown	08 yellow	12 blue	18 white	

TEST LEADS WITH 4MM LAMELLA PLUG

- Highly flexible laboratory cables.
- Both sides with stackable 4mm lamella plug.
- Rated current: 32A.
- Max. contact voltage for 4mm test leads without insulation without insulation: $30V_{AC}/60V_{DC}$.
- Max. contact voltage for 4mm safety test leads (touch protected with firm collar): 1000V.



Test Leads 4mm		299.5 A L 0 FF													
A	Type	L	Length		FF	Color									
1	Test Lead	0	25cm	4	100cm	02	black	06	red	10	yellow	14	blue	18	white
3	Safety Test Lead	2	50cm	6	150cm	04	brown	08	yellow/green	12	green	16	grey		

Test Lead Sets		299.49 <div>A</div> <div>S</div> 00	
A	Type	S	Number
1	Test Leads	1	50pcs, lengths: 25, 50 and 100cm in assorted colors
3	Safety Test Leads	2	100pcs, lengths: 25, 50, 100 and 150cm in assorted colors
		3	160pcs, length: 25, 50, 100 and 150cm in assorted colors

PLUG CONNECTOR AND ADAPTER

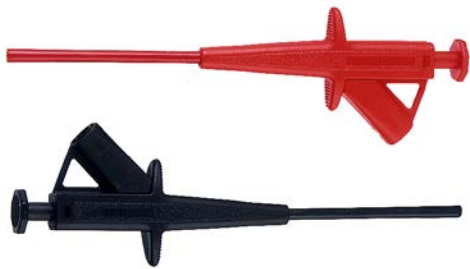
Connectors	
505.000.010	Plug Connector 2mm (pin distance 5mm)
505.000.020	Plug Connector 4mm (pin distance 19mm)
505.000.021	Plug Connector 4mm (pin distance 38mm)
505.000.022	Adapter 4mm Plug - 2mm Plug, black
505.000.023	Adapter 4mm Plug - 2mm Plug, red
505.000.030	Safety Plug Connector 4mm (pin distance 19mm)



CLAMP-TYPE TEST PROBE

- Elastic grip jaw in flexible tube and 4mm plug adapter for test leads for hard to reach measuring points.

Clamp-Type Test Probe	
299.500.001	red
299.500.002	black



STANDARD TEST PROBE

- Thin steel probe with 4mm plug adapter for the connection of test leads.

Standard Test Probe	
299.500.011	red
299.500.012	black



CROCODILE CLIP

- applicable for bolt diameter max. 20mm, finewire clamp, other side with 4mm plug adapter.

Crocodile Clip	
299.500.021	red
299.500.022	black



BNC CABLE

- BNC Cable 50, with 2x BNC plugs with bend protection.
- Color: black.

BNC Cable	
299.050.100	50cm
299.100.100	100cm
299.200.100	200cm



BNC EXTENSION CABLES

- BNC cable with BNC plug and BNC coupler, 50Ω.
- Color: black.

BNC Extension Cable	
299.500.031	100cm
299.500.032	200cm



BNC ADAPTER

- Adapter for 2x 4mm screw / clamp sleeve to BNC.

BNC Adapter	
299.001.300	with BNC Plug
299.002.100	with BNC Socket



PROFI CABLE COMB

- Cable comb made of sheet steel with gaps for cables in different width for the acceptance of cables max. 12mm diameter.
- Durable, light grey powder coating.
- Incl. assembly set for fixation to the PROFI profile.
- Height: 30mm.

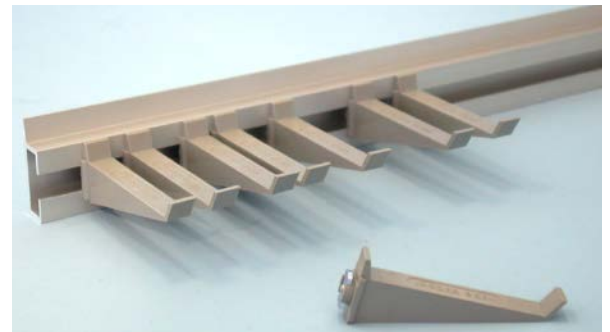


Depth	300/17	500/31	Width / Nos of Gaps 603/37	800/46	1000/56
80mm	448.160.000	448.180.000	448.200.000	448.220.000	448.240.000
160mm	448.170.000	448.190.000	448.210.000	448.230.000	448.250.000

CABLE COMB WITH ADJUSTABLE TINES

- Aluminium U profile with flexible number of plastic tines and individual gap fixation.

Cable Comb with Adjustable Tines	
299.211.100	Tine (1pcs)
299.221.100	L: 255mm with 16x Tines
299.221.200	L: 500mm with 34x Tines
299.221.400	L: 1000mm with 69x Tines



PROFI CABLE SUPPORT

- Cable support with bow and integrated cable comb made of 3mm aluminium sheet.
- Cable comb suitable for test leads, power cables, etc.
- Durable, dissipative powder coating in light grey.
- Dimensions: 160 x 100 x 65mm (WxDxH).

299.221.501	PROFI Cable Support
-------------	---------------------



PROFI HOSE - AND CABLE SUPPORT

- Bowed support made of aluminium die-cast.
- Supports any hoses and cables.
- Dimensions: 190 x 70mm (WxD).

940.196.400	PROFI Hose - and Cable Support
-------------	--------------------------------



RUBBER MAT

- Protective mat for bench top in honeycomb pattern to keep small parts from dropping down.
- Dimensions: 525 x 365 x 7mm (WxDxH).
- Color: black.

299.111.100	Rubber Mat
-------------	------------



ANTISTATIC RUBBER GRID-MAT

Solid rubber mat as hardwaring base for heavy parts and to prevent small parts dropping down or damaging the workpiece.

- Open cell structure.
- Natural rubber, electrically dissipative, black color.
- Dimensions: 610 x 370 x 20mm.
- Cell dimensions: 50 x 45mm.
- Discharge resistance: 10³ - 10⁴Ω.

299.111.300	Antistatic Rubber Grid-Mat
-------------	----------------------------



RUBBER MAT (PER METER), GREY

- Tailored rubber mat to protect your bench top or as floor mat.
- Upper side either rilled or flat.
- Width: 1000mm or 1200mm, length (max.): 10m.
- > = 4mm thick, resilient to disruptive discharge up to 50kV (VDE 0680).

Rubber Mat, grey (per meter) 299.121. S B 0	
S Thick	B Width
1 3mm, rilled	0 1000mm
2 4,5mm, rilled	2 1200mm
3 4mm, flat	

Rubber Mat Tailoring	
299.890.910	Straight Cut, per Meter
299.890.920	Squared Cutout



ERGONOMIC FLOOR MAT PU

- Floor mat for ergonomic standing in mainly dry areas.
- Semicircular foams (Ø 19mm) for soft standing.
- Color: grey.
- Thick: 14mm.

Ergonomic Floor Mat PU	
299.892.609	600 x 900mm
299.892.912	900 x 1200mm

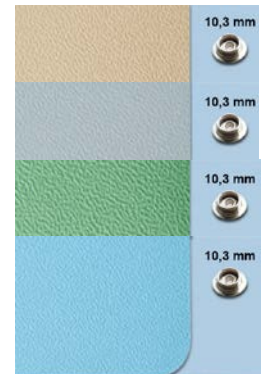
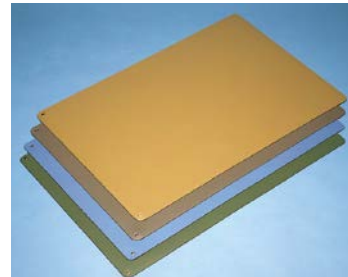


ESD BENCH MAT

- Double-layered bench mat with round edges.
- Double-layered synthetic rubber.
- 2x press stud 10,3 for wristband connection.

- Surface shortly withstands soldering splatters, low-resistance base-layer provides steady discharge resistance of approx. 10 - 100MΩ in each position.

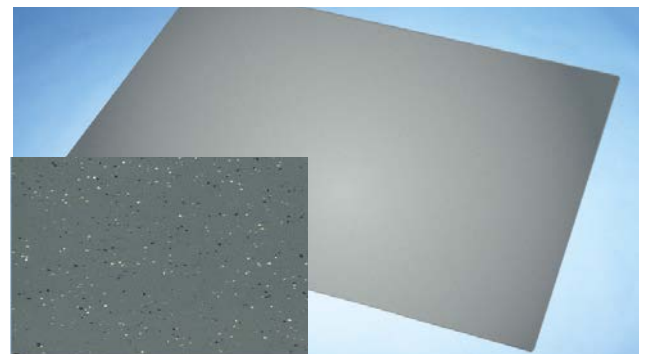
ESD Bench Mat	
299.890.300	600 x 1000mm (beige)
299.890.302	600 x 1000mm (platinum grey)
299.890.304	600 x 1000mm (olive green)
299.890.306	600 x 1000mm (light blue)
299.890.310	600 x 1200mm (beige)
299.890.312	600 x 1200mm (platinum grey)
299.890.314	600 x 1200mm (olive green)
299.890.316	600 x 1200mm (light blue)



ESD FLOOR MAT

- The structure provides perfect laying characteristics without curls and stumbling risk.
- The surface is resistant to swivel chair movements and shortly withstands intense heat e.g. soldering splatters.
- Double-layered synthetic rubber.
- Tailored: 1500 x 1200 or per meter, max. 1500 x 10000mm.
- 2x press studs 10,3mm for earth connector.
- Color: platinum grey.
- Thickness: 3,5mm.

ESD Floor Mat	
299.890.200	1500 x 1200mm
299.890.202	per Meter, Width: 1500mm

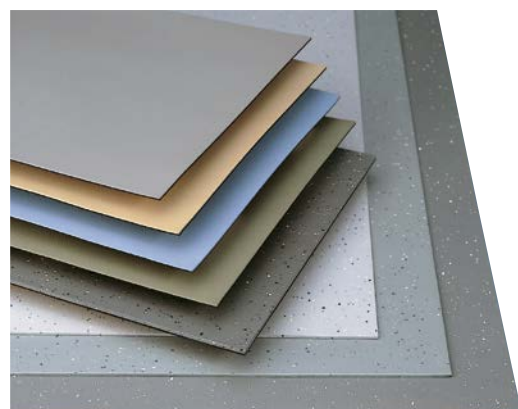


Synthetic rubber mat with continuously dissipative base-layer and pointwise contact to the surface for perfect discharging properties.

ESD MAT PER METER

- Double-layered synthetic rubber mat, shortly resistant to soldering splatters, with low-resistance base-layer.
- VDE-conform, certified according to DIN EN 100 015.
- Discharge resistance: 10 - 100MΩ, length (max.): 10m.

ESD Mat (per Meter)		299.89	B	4	ST
B	Width	ST	Thickness		
1	1000mm	00	2mm (beige)		
0	1220mm	02	2mm (platinum grey)		
		04	2mm (olive green)		
		06	2mm (light blue)		
		10	3,5mm (platinum grey)		



The mat provides safe dissipation of electrostatic charges in ESD protected areas.

ESD CONNECTORS

- Easy earth connections with integrated 1MΩ bleeder resistance, 10,3mm press stud for flexible connection.
- Power outlet adapters for type F sockets.

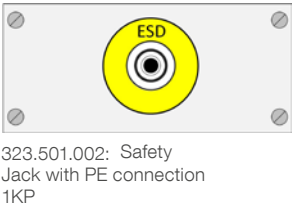
ESD Connectors	
299.890.500	Socket Adapter with Press Stud and 1,5m Cable
299.890.510	Socket Adapter with 3x Press Stud
299.890.520	Press Stud Box (2x) and 1,5m Cable
299.890.530	Press Stud Box (6x), Socket Adapter + 1,5m Cable mit



KP MODULE WITH ESD CONNECTING POINT

- Aluminium front panel, light grey powder coated.
- 4mm safety jack in white with ESD sticker, connected with the PE accross 1MΩ protective resistor.
- With adapter it is suitable for 10,3mm press studs.

KP Module with ESD Connecting Point	
323.501.002	Module with ESD Connecting Point (1KP)
299.790.900	Adapter 4mm Safety Jack - 10mm Press Stud



323.501.002: Safety Jack with PE connection 1KP



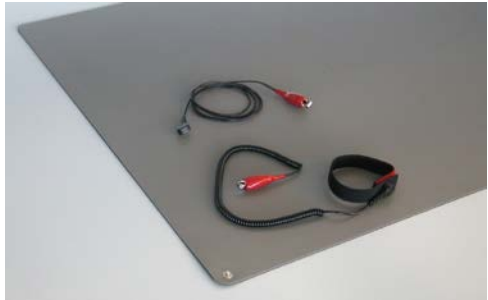
299.790.900: Adapter 4mm Safety Jack - 10mm Press Stud



ESD SET BASIC

- Dissipative mat with round edges, platinum grey, made of antistatic synthetic rubber 900 x 600 x 2mm.
- Two press studs for the connection of an earthing cable and wristband.
- Earthing cable with press stud and crocodile clip.
- Textile wristband with elastic strap, coiled cord and press stud.

299.890.100	ESD Set Basic
-------------	---------------



MAT TAILORING

On demand mats can be:

- Tailored to fit to your individual bench configuration.
- Press studs can be incorporated for ESD connections.
- Taped to your bench top or floor with microperforated tape to avoid bubbles - the tape can be removed without residues.

Mat Tailoring	
299.890.910	Straight Cut per Meter
299.890.920	Squared Cut
299.890.590	Punching Tool incl. Press Studs 10,3mm
299.895.075	Double-sided Tape per Meter (Width: 1m)

- For an easier handling the tape is one-sided covered with protective sheet. The tape is suitable for swivel chair movements and floor heating.
- The punching tool allows the individual positioning of press studs 10,3



ESD MONITORING UNIT

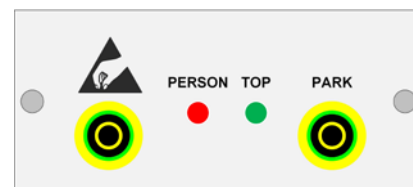


- The ESD Monitoring Unit permanently observes the proper earthing of a wristband and the ESD bench top.
- If the wristband is removed from the arm or earth-resistance of bench top is faulty, then there is an optical and accoustical indication.
- If the operator leaves the workstation, the wristband is placed in a special „parking point“, so no alarm is initiated.
- The ESD Monitoring Unit is available in two variants:
 - Box (dimensions: 720 x 450 x 200mm) for the installation under the bench top (retrofittable)
 - KP module for integration into ENERGY extensions.
- The ESD Monitoring Unit is grounded via power supply and holds an invisible connection to the bench top. A sinewave test voltage (1,2V / 1-2μA) is permanently checked for distortions. The faulty earth resistance is instantly indicated with red LED and buzzing signal.
- Controllable loudness (volume) of accoustic signal.
- The monitoring function for the bench top can be deactivated.
- Relay output contacts for the alarm modes are available, e.g. for a delayed deactivation of the electrical bench rack modules or for signalling to an external warning light.



299.790.100: ESD Monitoring Unit, Box Version

ESD Monitoring Unit	
299.790.100	ESD Monitoring Unit / Box Type
322.790.002	KP Module horizontal (1KP)
322.790.052	KP Module vertical (1KP)
299.790.900	Adapter 4mm Safety Jack - 10mm Press Stud
299.790.800	Option Alarm Modes with Relay Output Contacts



322.790.052: ESD Monitoring Unit (1KP) vertical



299.790.900: Adapter 4mm Safety Jack - 10mm Press Stud

WRISTBAND AND COILED CORD



- Textile wristband with elastic, anti-allergic fabrics. Integrated 1 MΩ-resistor for connection to 10,3mm press stud.
- Coiled cord, length 2,4m, both sides with press stud.

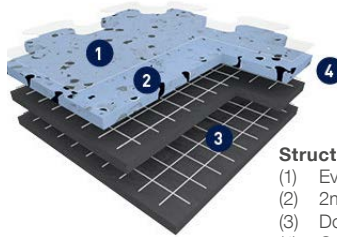
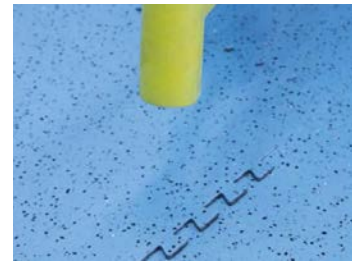
Wristband and Coiled Cord	
299.890.110	Wristband with Coiled Cord
299.890.120	Wristband
299.890.130	Coiled Cord



ESD FLOOR CONNECT

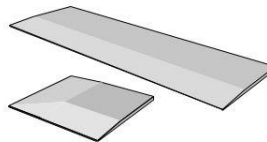


- Elastic conductive floor tiles 635 x 635mm.
- Dovetail outline for quick and easy laying.
- Made of dissipative vinyl according to ISO 10582.
- Suitable for swivel chairs EN 12529 type W.
- Non-directional, interspersed with black dissipative sprinkles, smooth anti-slip surface.
- Durable high-quality material with double glass-fibre mesh.



Structure:

- (1) Evercare surface treatment (conductive)
- (2) 2mm thick homogeneous surface layer
- (3) Double glass fibre mesh
- (4) Carrying layer: mixture or carbon granulates and recycled vinyl



Edges

- Ramp: One side straight and chamfered 310 x 635mm
- Corner: Two sides straight and chamfered 310 x 310mm



Copper Band

- 20m Rol
- Adhesive, for earthing
- Thickness: 0,1mm
- Width: 11mm



Earthing Set for Copper Band

- With 4mm test socket
 - Dimensions: 45 x 55 x 10mm
- Set consisting of:
- 1x Earthing Box
 - 2m Adhesive copper band
 - 3m Connecting cable with M5 eyelet



Press Stud Universal Kit:

- Press Stud, round part 10mm
- Press Stud, spring part 10mm
- Screws with washer and lower part
- EPA bonding label



Aluminium Transition Profile 3m

- For a perfect transition between tiles and initial room floor
- Width: 65mm

Wear classification:	Class 34, 43
Total thickness:	6,0mm
Surface thickness:	2,0mm
Weight:	9.240g/m ²
Fire resistance (EN 13501-1):	Bfl-s1
Static electrical propensity (EN 1815):	< 2kV
Electrical resistance:	
EN 1081:	$5 \times 10^4 \leq R_t \leq R 10^6 \Omega$
IEC 61340-4-1:	$\leq 10^9 \Omega$
IEC 61340-4-5:	$\leq 10^9 \Omega$
ANSI / ESD 7.1:	$\leq 10^9 \Omega$
Slip resistance wet: (DIN 51130):	R9
Shore hardness D:	$\geq 90HD$
Light fastness:	\geq Level 6
Chemical resistance:	good

Dynamic load capacities if loosely layed:

- Pallet lifters up to 1,2t load capacity
- Fork lifts with pneumatic tyres max. 5,0t total weight
- Solid rubber wheels up to 4,0t total weight

Laying Tips:

Tight interconnection is done by dovetailing the tiles, preferably with a rubber hammer for firm contact.

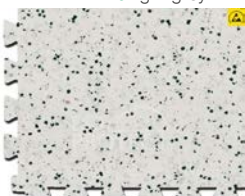
For loosely layings a gap of 6mm to the wall is recommended. Earthing must be done with copper band under each 3rd row of tiles. The copper band should contact each tile preferably in its center. The copper bands need to be connected to earth potential.

ESD Floor CONNECT

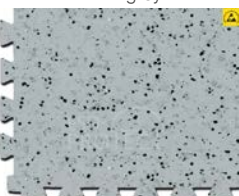
299.600.10F	Standard Floor Tile 635 x 635mm
299.600.20F	Ramp Floor Tile 310 x 635mm
299.600.30F	Corner Floor Tile 310 x 310mm
299.601.000	Copper Band, 20m rol, adhesive
299.602.000	Earthing Set for Copper Band
299.603.000	Press Stud Universal Kit
299.604.000	Aluminium Transition Profile 3m

Colors

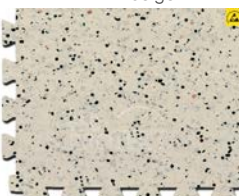
F=0 light grey



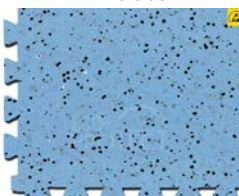
F=1 grey



F=2 beige



F=3 blue



F=4 black



ESD DOCUMENT HOLDER DIN A4

- 10x DIN A4 document protectors made of electrostatic polyethylene, fitted in black metal frame.
- Holder made of stainless steel incl. assembly set for fixation to the PROFI extensions.

468.100.100


ESD Document Holder DIN A4



TURNTABLE

- Stainless steel disk with ribbed rubber surface.
- Load capacity: 180kg.
- Height: 20mm.
- Position lock with snap-in bolt in im 45° steps, free-wheeling possible.

Turntable 299.62 A . D 0 T

A Type	D Diameter	T Version
0 Standard	3 380mm	0 no position lock
5 ESD 	5 500mm	5 with position lock

ESD Type

- Dissipative ribbed rubber with earthing cable.



ESD FOOT REST

- Durable dissipative foot rest with adjustable tilt and earthing cable.
- Black surface (450 x 350mm).
- Front height: 30 - 100mm.
- Rear height: 70 - 75mm.

299.610.100

ESD Foot Rest



TOOL HOLDER

- Can be fixed to the perforated backplane of workbenches for having tools always at hand.
- Flexible plastic lugs for easy push out and pull in.
- Color: black.
- Dimensions: 440 x 35 x 30mm (WxHxD).

461.912.000

Tool Holder



TOOL HOLDERS FOR PERFORATED BACKPLANE

- The hooks are for hanging into the perforated backplane and fixed with screw.
- Made of steel with synthetic finishing.

A	Color
0	Silver
1	Anthracite

Set of Holders
469.900.01A 12-parts
469.900.02A 18-parts
469.900.03A 28-parts
469.900.04A 40-parts

Holder with Hook
469.050.01A L: 50mm / Ø 6mm
469.050.02A L: 100mm / Ø 6mm
469.050.03A L: 150mm / Ø 6mm
469.050.04A L: 200mm / Ø 6mm

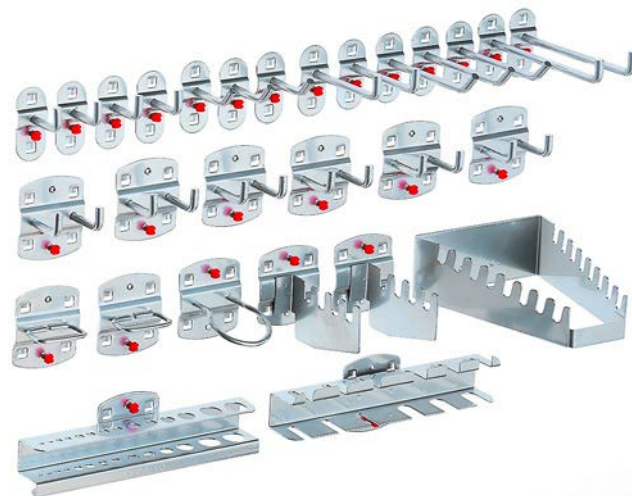
Holder with Clip
469.150.01A Ø 13mm
469.150.02A Ø 19mm
469.150.03A Ø 25mm
469.150.04A Ø 32mm

Holder for Electric Tools
469.250.01A Ø 40mm
469.250.02A Ø 60mm
469.250.03A Ø 80mm

Holder for Screw Drivers
469.400.01A for 6 pcs
469.400.02A for 12 pcs

Holder for Drill and Inbus
469.450.01A for 14 pcs
469.450.02A for 28 pcs

Document Holder
469.600.03A 220 x 310mm (WxH)



Holder with Double Hook
469.100.01A 35 x 35mm (LxW)
469.100.02A 50 x 35mm (LxW)
469.100.03A 75 x 35mm (LxW)
469.100.04A 150 x 35mm (LxW)

Holder for Plier
469.200.01A 35 x 20mm (WxD)
469.200.02A 55 x 20mm (WxD)
469.200.03A 75 x 20mm (WxD)

Holder for Cables
469.300.01A 150 x 37 x 50mm
469.300.02A 200 x 37 x 50mm

Holder for Wrench
469.500.01A for 8 pcs

Bin Bar
469.350.01A for 1 pcs
469.350.02A 550 x 60mm (WxH)
469.350.03A 550 x 38mm (WxH)

Shelf
469.550.01A 350 x 125mm (WxT)
469.550.02A 445 x 150mm (WxT)

SMALL PART MAGAZINE STANDARD

Drawers made of transparent and unbreaking polypropylen, prepared for labeling and partitioning.

- Prepared for wall mounting.
- Made of sheet steel, durable anthracite powder coated.
- Dimensions: 307 x 150 x 555mm (WxDxH).

Small Part Magazine Standard

295.008.100	with 8 drawers
295.016.100	with 16 drawers
295.024.100	with 24 drawers
295.040.100	with 40 drawers
295.048.100	with 48 drawers
295.060.100	with 60 drawers



295.048.100



295.024.100



295.016.100

SMALL PART MAGAZINE ESD

Drawers made of black dissipative synthetic material with carbon fibres.

- Prepared for wall mounting.
- Made of sheet steel, durable conductive galvanized (silver).
- Dimensions: 307 x 150 x 555mm (WxDxH).

ESD Small Part Magazine

295.024.200	with 24 drawers
295.048.200	with 48 drawers
295.060.200	with 60 drawers



295.060.200



ROTARY TOWER

The rotary tower is modularly and flexibly equipable with above mentioned small part magazines.

- Made of sheet steel with durable anthracite powder coating (Standard) or silver galvanized (ESD).
- Can be equipped with 12x small part magazines.
- Base with ball-bearing for easy rotation.
- Dimensions: 680 x 680 x 1760mm (WxDxH).

Note!

No small part magazines included in this article No.

Rotary Tower for Small Part Magazines

295.000.100	Standard
295.000.200	ESD 



295.000.100



295.000.200

STORAGE BINS




- Storage bins made of polypropylen.
- Stackable with lable holder.
- In color grey (standard), green, blue, red and yellow.
- Bins with a length of max. 290mm suitable for hanging.
- Packing unit 10pcs.

ESD Version:

- Made of black, dissipative carbon fibre plastics.
- GGG 010, 030, 050 not available in ESD.



Storage Bins		296. GGG - A 01		(PU = 10x)	
GGG Dimensions (DxWxH)				A Version	
010	500x300x250	050	290x140x130	1	Standard
020	500x300x200	075	230x140x130	2	ESD 
030	350x200x200	100	160x105x75		
040	350x200x150	125	85x105x45		



Standard



ESD

ESD TRANSPORT BOX IN EURO STANDARD

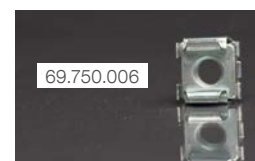
- Stackable transport container in Euro standard made of dissipative, black polypropylen.
- Suitable for the smooth transportation on conveyors of production lines.
- Discharging resistance: approx. 10 kOhm.



ESD Transport Box in Euro Standard		296. GGG .201
GGG Dimensions (WxDxH)		
322	300x200x117	431 400x300x75
431	400x300x75	434 400x300x220
432	400x300x120	435 400x300x270
433	400x300x170	436 400x300x320
642	600x400x120	643 600x400x150
643	600x400x150	644 600x400x220
645	600x400x285	
646	600x400x320	


SLIDING NUTS FOR PROFILE SLOTS

Sliding Nuts		(PU = 10)
491.002.110	Sliding Nut for PROFI Extensions M5	
491.002.120	Sliding Nut for PROFI Extensions M6	
491.002.130	Sliding Nut for PROFI Extensions M8	
410.130.138	Heavy Duty Sliding Nut M8 (67 x 20 x 8mm)	
69.750.006	Cage Nut M6 for Installation Walls	
491.002.220	Threaded Plate M6 19x19 for H-Profile	
491.002.410	Sliding Nut M4 for H-Profile (front)	
491.002.310	Sliding Nut for 30x30 Cross Profile M5	
491.002.320	Sliding Nut for 30x30 Cross Profile M6	
491.002.330	Sliding Nut for 30x30 Cross Profile M8	



ELECTRICIAN VISE WITH BALL JOINT BASE

- Rotatable in each direction with position lock.
- Replacable plastic jaws.
- Clamping force: 1.470N; opening width: 70mm.
- Clamping depth: 38mm; jaw width: 50mm.

Electrician Vise with Ball Joint Base			
299.131.100	Standard	299.131.105	ESD 



BASE WITH BALL JOINT


- For the fixation to laboratory benches with max. 80mm bench top.

Base with Ball Joint			
299.130.400	Standard	299.130.405	ESD 



ELECTRICIAN VISE

- Replacable plastic jaws.
- Clamping force: 1.470N; opening width: 70mm.
- Clamping depth: 38mm; jaw width: 50mm.

Electrician Vise			
299.130.500	Standard	299.130.505	ESD 



TURNING HEAD FOR CIRCUIT BOARD

- Quick turning mechanism with angled adapter.
- For an easy and quick 180°-turn of circuit boards with automatic stop.

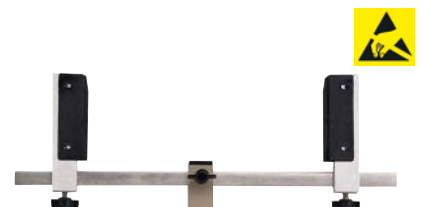
Turning Head for Circuit Board	299.130.705	
--------------------------------	-------------	---



CIRCUIT BOARD HOLDER

- Clamp holder for circuit boards to avoid hand contact.
- Accepting bracket: 70mm; adjustable between 25 - 270mm.
- Adjustable midposition.

Circuit Board Holder	299.130.605	
----------------------	-------------	---



CIRCUIT BOARD COVER

- Allows to turn the circuit board with components before soldering.
- Dimensions: 315 x 330mm.

Circuit Board Cover	299.130.800	
---------------------	-------------	---

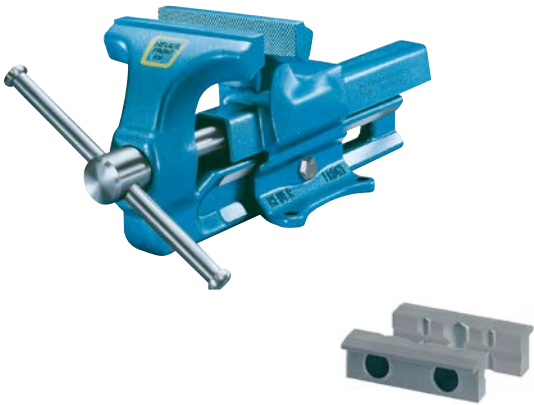


MECHANIC VISE

Mechnaic vise with forged jaws for circular pipes, clamping jaws for great depth, easy adjustable centric clamping mechanism, precision spindle-bearing with two-turn trapezium thread; grooved jaws.

Jaw width: 120 mm.
Span depth: 65 mm.
Pipe-Ø min./max.: 16-55 mm.

Mechanic Vise	
299.132.101	Standard Vise
299.132.102	Vise with Exchangable Jaws
299.132.191	Pair of Protective PP Jaws
299.132.192	Pair of Pipe Jaws

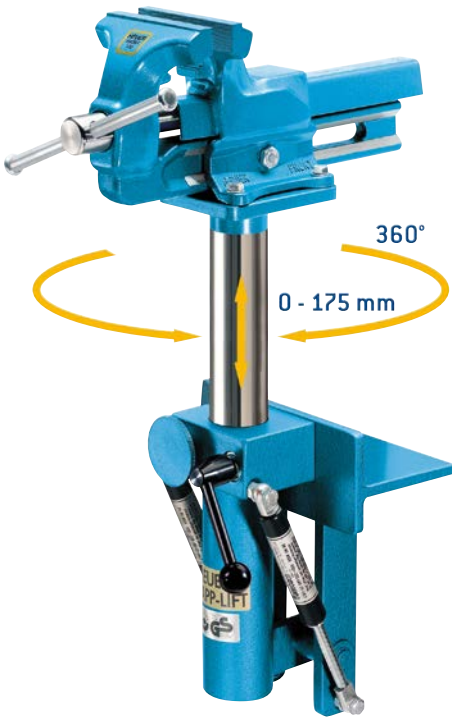
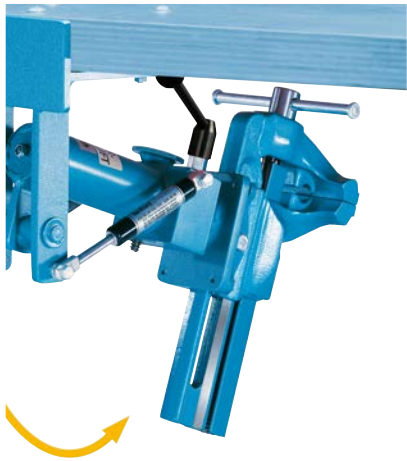


FOLD - / LIFT MECHANISM FOR MECHANICAL VISE

When not in use, the vise can be fold under the bench top, so your bench top is clear for other tasks. When used, the vise can be adjusted in height by approx. 175mm and is 360° turnable.

Lowest position: 590mm.
Folding depth: 460mm.
Folding radius: 430mm.

Fold - / Lift Mechanism for Mechanical Vise	
299.132.201	Lift Mechanic (turn - and height adjustable)
299.132.211	Fold Mechanic with Gas Lift
299.132.221	Fold - Lift Mechanic



SOLDERING FUME EXTRACTION ZERO SMOG FOR 1-2 WORKSTATIONS

The Weller ZERO SMOG eliminates air pollution caused by soldering fume, vapours from adhesives or lasering smokes. The ZERO SMOG is an effective and budgetary solution for 1-2 workstations. Each set holds 1x extraction arm, a second one can be connected.

- Dimensions 335 x 330 x 445mm (WxDxH).
- Power consumption 120VA.

ZeroSmog EL:

- 4-steps for rotation speed of fan.
- Sound level 55db(A) in 1m distance.
- Max. vacuum 2.500Pa.
- Max. air flow 150m³/h.
- Prefilter for fine particles M5.
- Particle filter H13 and active carbon filter.

ZeroSmog TL:

- Variably adjustable air volume.
- Low sound level <50db(A).
- Max. vacuum 3.000Pa.
- Max. air flow 190m³/h.
- Prefilter for fine particles F7.
- Particle filter H13 & gas filter (10% active carbon foam).



- ZERO SMOG EL Set**
- EL extraction unit
 - 1x 1,5m extraction hose
 - 1x hood nozzle 225x100
 - bench clamp



- Extraction Arm Set
(for 2nd Workstation)**
- 1x bench clamp with closing valve
 - 1x 1m extraction hose
 - 1x hood nozzle 225x100
 - 1x connecting hose to extracting unit 3m



- ZERO SMOG TL Set**
- TL extraction unit
 - 1x bench clamp with closing valve
 - 1x 1m extraction hose
 - 1x hood nozzle 225x100
 - 1x connecting hose to extraction unit 3m
 - remote switch

Soldering Fume Extraction ZERO SMOG	
185.410.150	ZERO SMOG EL Set
185.410.190	Replacement Filter for Set EL
185.420.150	ZERO SMOG TL Set
185.420.190	Replacement Filter for Set TL
185.400.200	Extraction Arm Set (for 2nd Workstation)

ACCESSORY FOR ZERO SMOG EL / TL

Flexible click-pipe system with pipe diameter 60mm, suitable for ESD areas.

Extraction Arm Set with Nozzle consisting of:

- Aluminium extraction arm with 2 joints, throttle valve and bench clamp.
- Flexible hose (0,7m) with punctual metal nozzle, total length 0,7m.
- Connecting hose Ø 60mm length: 3m.

Extraction Arm Set with Hood Nozzle consisting of:

- Aluminium extraction arm with 1 joint, throttle valve and bench clamp.
- Flexible hose (0,7m) with hood nozzle 230x100mm.
- Connecting hose Ø 60mm length: 3m.



185.400.010

185.400.020



185.400.210

185.400.220

185.400.300

185.400.310

185.400.350

185.400.400

185.400.500

Accessory to Soldering Fume Extraction ZERO SMOG	
185.400.010	Extraction Arm Set Punctual Nozzle
185.400.020	Extraction Arm Set Hood Nozzle
185.400.210	Flexible Extraction Hose 0,7m
185.400.220	Connecting Hose 3m
185.400.300	Punctual Nozzle (extra unit)
185.400.310	Hood Nozzle (transparent)
185.400.350	Closing Valve
185.400.400	Adaption to Ø 50mm
185.400.500	Remote Switch, Cable Length 2m

DIRECT FUME EXTRACTION FOR UP TO 2 SOLDER TOOLS

The Direct Fume Extraction of Weller is made for the direct connection to max. 2 FE soldering tools. An electric, sound-optimized vacuum pump provides the required suction. Selector switch for fan regulation with respect to number of connected FE tools. The capacitor motor is maintenance-free and with thermofuse for overload protection. Easy filter replacement due to filter-lift-technology.

- Sound level (distance 1m): <45dB(A).
- Flow quantity: 50l/min.
- Dimensions: 140 x 295mm (Øxh).
- Max. vacuum fan: 30.000Pa.
- Prefilter: fine particle, class F7.
- Compact filter: particle filter H13, wide band gas filter (50% active carbon / 50% chemisorbed).

FE Extraction Kit (retrofit) with pipe Ø 4,5 mm for Weller soldering tools WP 80, WSP 80, WMP, WMRP/WXMP, MLR 80.



Direct Fume Extraction



FE Soldering Set

FE Extraction Kit

Direct Fume Extraction	
185.500.000	Direct Fume Extraction Unit
181.510.100	FE Soldering Set 80W (soldering tool FE 75 with safety stand)
185.510.000	FE Extraction Kit with Pipe for Soldering Tool

SOLDERING FUME EXTRACTION FOR 2-4 WORKSTATIONS

Mobile soldering fume extraction unit for 2 - 4 workstations.

- Sheet steel housing in light grey RAL 7035 and blue RAL 5013.
- Dimensions: 340 x 430 x 600mm (WxDxH).
- Triple filtering: prefilter F5, HEPA filter H13, separation rate according to EN1822 99,95%, refillable active carbon filter in exchangeable housing.
- With 4 adapter for hoses NW50.
- Air flow: 320 m³/h.
- Total pressure: 4.000Pa.
- Motor performance: 240W.
- Sound level 56dB(A).

Mobile Soldering Fume Extraction ECO:

- Simple operator panel with optic and acoustic control function.

Mobile Soldering Fume PREMIUM:

- Operator panel with full text indication and membran keypad for comfortable use.
- Air flow control.

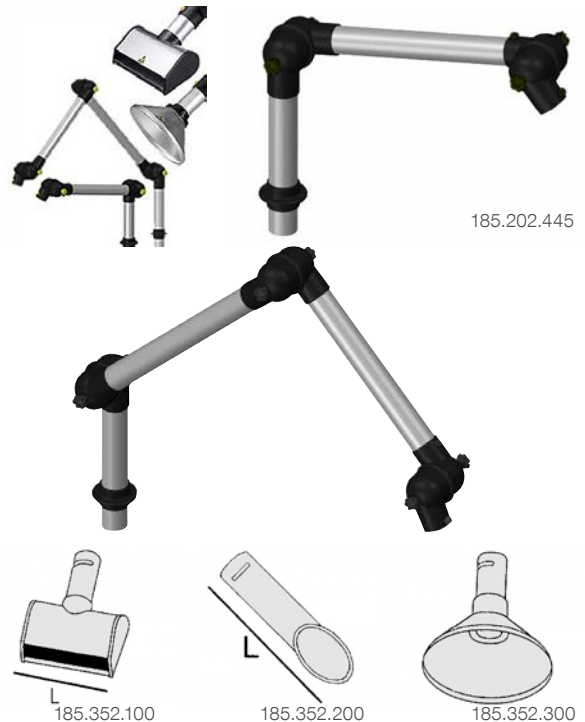


Mobile Soldering Fume Extraction	
185.100.111	Mobile Soldering Fume Extraction ECO
185.100.110	Mobile Soldering Fume Extraction PREMIUM
185.100.910	Set of Prefilter Mats (10pcs)
185.100.920	HEPA Filter
185.100.930	Active Carbon Filter (Exchange System)

RIGID EXTRACTION ARM FOR MOBILE EXTRACTION SYSTEM



- Fume extraction arm for bench assembly with bench clamp or flange.
- Pipe diameter: 50mm.
- Recommended air flow: 45 - 85m³/h.
- Antistatic aluminium pipes, chromated.
- Joints made of black antistatic PP.
- Integrated throttle valve.
- Earth cable with 1MOhm resistance.
- Antistatic flange for bench top mounting 60mm.



Accessory to Mobile Soldering Extraction Unit

185.202.100	Bench Clamp, black with 2 Fasteners
185.202.445	Extraction Arm, 2 Joints (reach: 445mm)
185.202.545	Extraction Arm, 2 Joints (reach: 545mm)
185.202.645	Extraction Arm, 2 Joints (reach: 645mm)
185.202.745	Extraction Arm, 3 Joints (reach: 765mm)
185.202.945	Extraction Arm, 3 Joints (reach: 945mm)
185.202.125	Extraction Arm, 3 Joints (reach: 1125mm)
185.352.100	Slotted Nozzle (width: 200mm)
185.352.200	Punctual Nozzle (width: 210mm)
185.352.300	Hood Nozzle (diameter: 200mm)

FLEXIBLE EXTRACTION ARM FOR MOBILE EXTRACTION SYSTEM



- Fume extraction arm for bench assembly with bench clamp or flange.
- Pipe diameter: 50mm.
- Recommended air flow: 45 - 85m³/h.
- Antistatic aluminium pipes, chromated combined with a flexible self-supporting hose made of black polypropylene (PP).
- Antistatic flange for bench top mounting, black, 60mm diameter.
- Joints made of black antistatic PP.
- Integrated throttle valve.
- Earth cable with 1MOhm resistance.
- Antistatic flange for bench top mounting 60mm.



Accessory to Mobile Soldering Extraction Unit

185.202.100	Bench Clamp, black with 2 Fasteners
185.204.600	Extraction Hose, no Joint (reach: 600mm)
185.204.700	Extraction Arm, 1 Joint (reach: 700mm)
185.204.900	Extraction Arm, 2 Joints (reach: 900mm)

Connecting Hose Extraction Unit - Extraction Arm

185.390.050	for ECO/PREMIUM (L: 1,25m)
185.390.100	for ECO/PREMIUM (L: 2,5m)
185.390.200	for ECO/PREMIUM (L: 5m)
185.392.050	for ZERO SMOG (L: 1,25m)
185.392.100	for ZERO SMOG (L: 2,5m)



TEST HOOD

- Dimensions: 530 x 900 x 660mm (WxDxH).
- Bottom with durable plastic cavity for internal wiring.
- Semicircular test hood made of transparent perspex with handle and safety lock.
- Housing made of durable plastic.

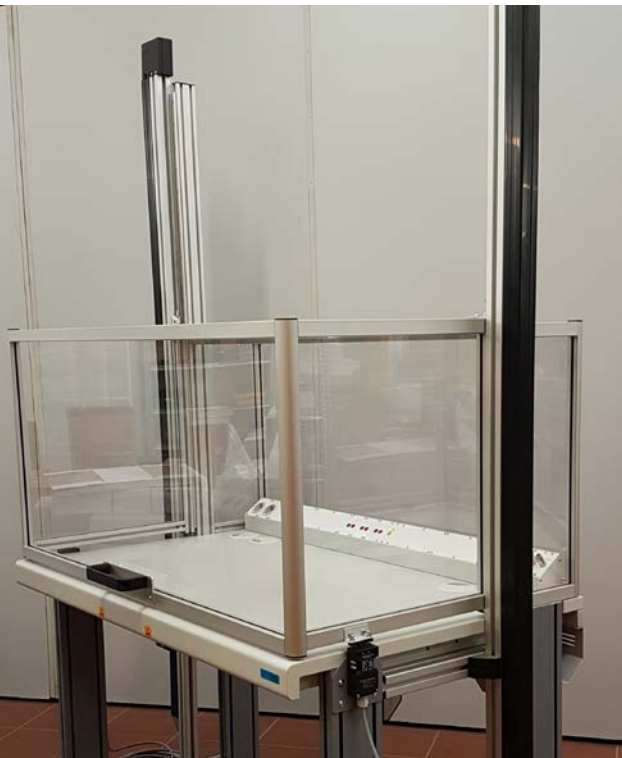
377.050.100	Test Hood
-------------	-----------



TEST CABIN

- 2-part perspex hood (fixed and flexible part) with aluminium structur and transparent inlays.
- Parallel lifting mechanic with guided cable-pull mechanism. Easy up- and down movement due to counter weight.
- The cabin is firmly closed with magnetic safety lock during the test process.
- Dimensions: approx. 1300 x 800 x 600mm (WxDxH).

Test Cabin	
940.027.200	Test Cabin for PROFI Bench 800x790x600mm
940.075.800	Test Cabin for PROFI-Tisch 1295x790x600mm



OTHER TEST CABINS ON DEMAND:

- Cabin mechanics (e.g. gas-lifted swivel mechanics).
- Cabins with higher insulation class.
- Safety concept: number and type of opening protection.

