

# THE CHOICE OF ENGINEERS



## **DIRECTORY** CATALOGUE 2023.08

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## **THE CHOICE OF ENGINEERS**



Made in Germany

#### CHAPTER 1: INTRODUCTION

- 004 Innovation and Tradition
- 006 High Manufacturing Depth in our German Headquarter
- 008 Competent in Manufacturing, Installation and Service
- 012 Standard-Conforming 2D and 3D Plannings
- 014 Industrial & Educational Labs and Workshops
- 016 Professional Consultance



## **INNOVATION** AND TRADITION

In 1959, our founder Mr. Hermann Rapp, was the first with the idea to built 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,

Technical details are subject to change.. © 2023.09 | www.hera.de

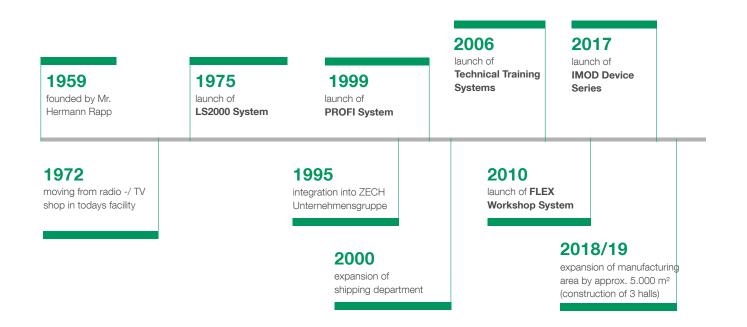






PROFI Lab with IMOD Devices in IoT Technology

### 





## 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 fexibility.

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.













## **COMPETENT 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 aquired 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

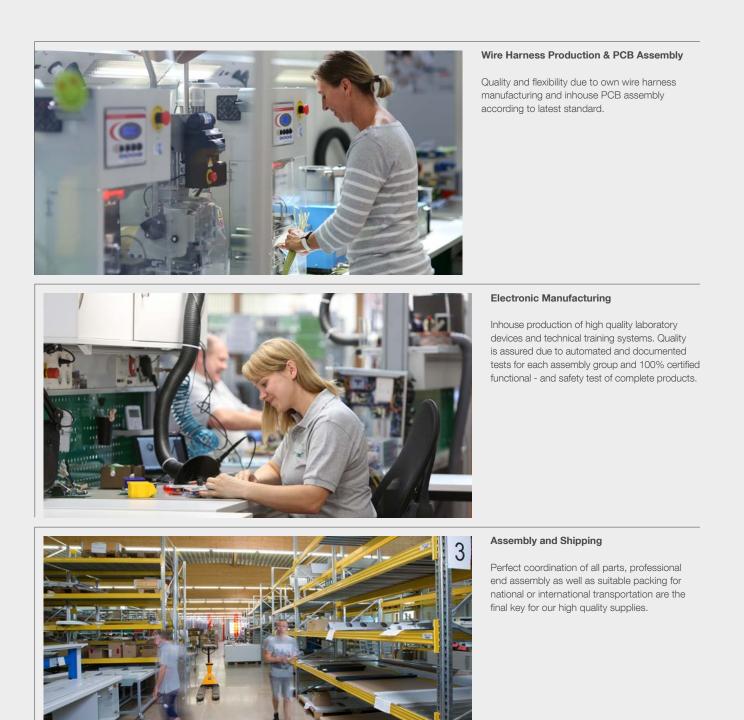
You will benefit from a hightech machine park for aluminium extrusion - and tubular steel processing.



Professional Electric End Assembly

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







## **PROFESSIONAL HANDLING** OF CUSTOMIZED PROJECTS

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 hightly 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.







#### **Certified Quality**

We are consequently following the ISO 9001 standard with perfectly tracable documentation to ensure reproducable 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.





## AUGMENTED SERVICES AFTER-SALES

We, from hera, aquired 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-shoesfloor 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.

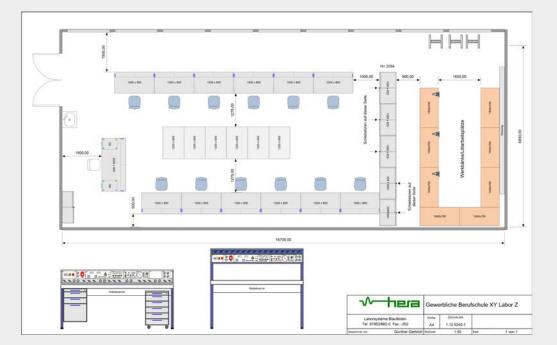


## STANDARD-CONFORMING 2D - AND 3D PLANNINGS

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, ergonomy, accident prevention and valid VDE standards.

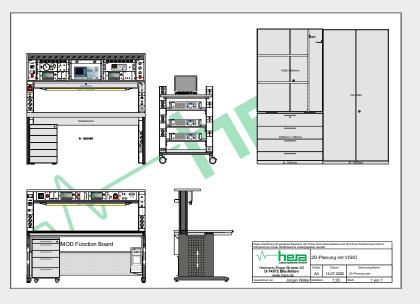














## **INDUSTRIAL - & EDUCATIONAL** LABS AND WORKSHOPS

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



#### PLEASE CONTACT, IF WE CAN HELP WITH YOUR PROJECT

Phone: 0049 7953-882-0 / Email: sales@hera.de





#### CHAPTER 2: PROFI BENCHES

- 020 Recommended Colors
- 022 Workbench
- 024 Laboratory Bench
- 026 Attachment and Intermediate Bench
- 028 PROFI Bench with Power Legs
- 030 PROFIconnect System
- **<u>034</u>** Cable Tray and Rear Paneling
- 035 PROFI Cross Profile and Foot Rest
- 038 PROFI Cantilever Bench
- 040 C-Lift-Bench
- 042 Spacers for Height Adjustable Benches
- 043 Casters for Height Adjustable Benches
- 045 X-Lift Bench Quattro

- 047 X-Lift Bench Duo
- 051 Corner Elements
- 053 Cable Tray for Corner Element
- 056 Meeting Corner and ESD Meeting Table
- 057 Height Adjustable PROFI Corner Combination
- 058 Power Strips
- 060 Cable Access Elements and Ventilation Grilles
- 061 Cable Clamp and Brush Channel
- 062 PC Support, Keyboard Drawer, Keyboard Extension
- 063 Height Adapter and Heavy Duty Levelers
- 064 Bench Connecter and Floor Fixation
- 065 Slot Cover and Extra Cable Duct
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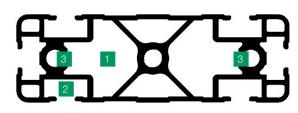


## INCOMPARABLE FLEXIBILITY BASING ON ALUMINIUM PROFILES



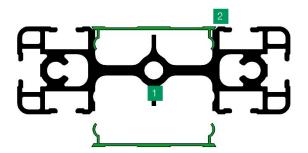
#### **SINGLE** Profile

- 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 cliped 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



## **QUALITY BENCHTOPS** FOR LABORATOY APPLICATIONS



#### **MATERIALS**



**OFFICE QUALITY** directly covered 3-layer chipboard according to DIN EN14322 with glarefree structured melamine resin covering > 0,1mm.



LAB QUALITY 3-layer chipboard (multilayer chipboard according to DIN EN ISO 13894-1) Upper side with hardwearing 0,8mm HPLlayer conforming to DIN EN 438-2).



#### **ESD VERSION**

surface - and volume conductive 3-layer chipboard with dissipative HPL-layer according to DIN-EN 61340-5-1.

#### **DECORS**



light grey







maple

#### **FRONT EDGES**



PP Edge durable PP plastic edge with 3mm radius and optical zero-joint between edge and surface



**PROFItec Edge** extremely robust and replacable front edge fully synthetic with 10mm radius



70mm Drop Edge

one-piece HPL-layer fully covering the surface and edge, 15mm radius for ergonomic rest of lower arm



## **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.





RAL-No. 5010 gentian blue

glossy



#### RAL-No. 5003 saphire blue

glossy



#### RAL-No. 2009 traffic orange

glossy



#### RAL-No. 3020 traffic red

glossy

#### RAL-No. 5023 distant blue

fine structure



RAL-No. 5018 turquoise



#### RAL-No. 6029 mint green





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 benchtop (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 benchtops 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

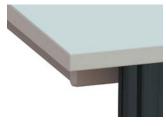


#### **ESD** Version

- 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 benchtop 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

	. B		.90 11			
Т	Depth	BB	Width	V Front Edge	Н	Rear Profile
6	800mm	08	800mm	PP Plastic Edge	fo	r SINGLE/ MULTI Extensions
7	900mm	09	900mm	0 Standard	1	SINGLE
8	1000mm	10	1000mm	5 ESD <u></u>	3	MULTI
		12	1200mm			
		13	1295mm	70mm Drop Edge	fo	r ENERGY Extensions
		15	1500mm	1 Standard	2	SINGLE
		16	1600mm	6 ESD <u>a</u>	4	MULTI
		18	1800mm			
		20	2000mm	PROFItec Edge		
		23	2303mm	2 Standard		
				7 ESD <u>a</u>		

PROFI Workbench 40 T BB V 90 H



# 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 benchtop (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.
- Rear sided cable flap with double rubber lip for a flexible cable outlet from cable tray to the benchtop. 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 benchtop is with cutouts for the bench legs for the modular fixation of extensions.
- Durable powder coated according to RAL Code.



• Front edge available in three different versions.



#### 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

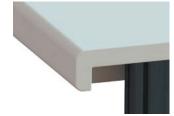


brush strip instead of rubber lip on demand

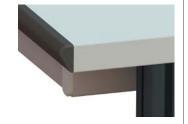
#### V Front Edge



PP Plastic Edge sturdy PP plastic edge with 3mm radius in benchtop 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

#### 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 benchtops

#### PROFI Lab Bench 41 T . BB V .9 K 1 T Depth V Front Edge Κ **Cable Flap BB** Width for SINGLE/ MULTI Extensions 0 800mm 08 800mm 70mm Drop Edge 0 1 900mm 09 900mm 1 PP Plastic Edge 0 Standard Flap (standard or short) 2 1000mm 10 1000mm 2 PROFItec Edge 180° Flap 1 12 1200mm 2 Downward Opening Flap ESD 🛵 13 1295mm 800mm 1500mm for ENERGY Extensions 4 15 5 900mm 16 1600mm 7 Standard Flap (standard or short) 180° Flap 6 1000mm 18 1800mm 8 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 benchtop 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									
	Т	Depth	ESI	D 🙇	۷	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 Stiff	ening		
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 CasterTwin Caster75mm ESDDesign 100mm

Heavy Duty Caster Solid Foot with n 100 / 125mm Lifting Caster

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



D Diameter (Load capacity per caster	r)		A	Version	Ρ	Profile
0 Twin Caster 75mm (80kg)	3	Twin Caster Design 100mm (100kg)	1	Standard	0	SINGLE
1 Heavy Duty Caster 100mm (100kg)	4	Solid Foot with Lifting Caster 63mm (500kg)	2	esd 🙇	3	MULTI
2 Heavy Duty Caster 125mm (100kg)						



# 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 vibrationfree 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 SING-LE and can be placed further to the rear for unhindered leg room in corner combinations.
- The rear bench legs are made of modular equipable ENER-GY 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 continously extended without any loss of stability.
- Hardwearing, light grey 30mm thick benchtop (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 cabeling from bench rack to under benchtop, 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



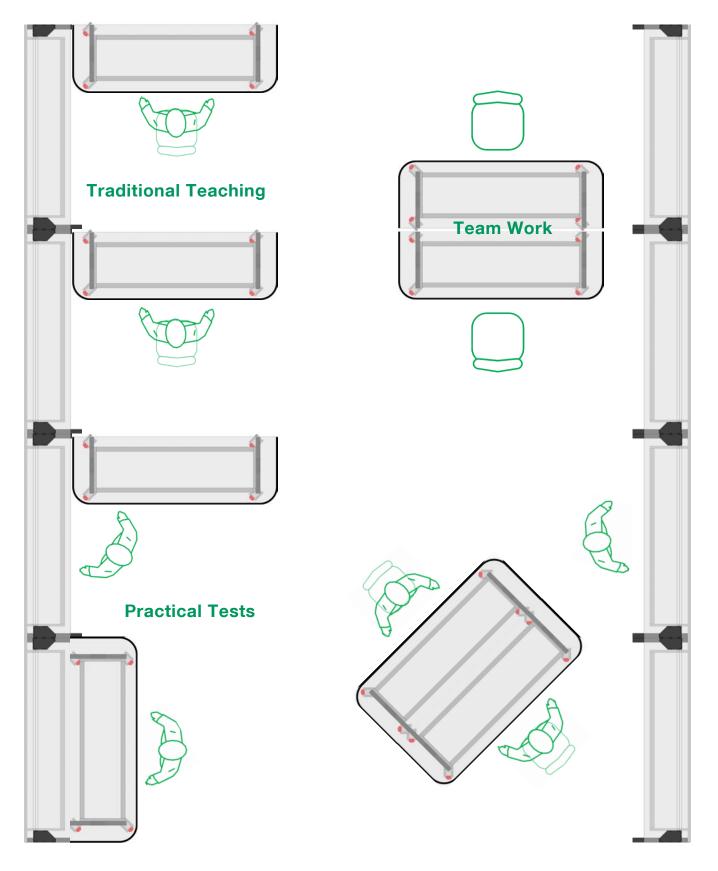
PRC	OFI Bench with Power Le	gs	41 T . BB V .3 K 1				
т	Depth	BB	Width	V	Front Edge	K	Cable Flap
0	800mm	08	800mm	0	70mm Drop Edge	0	Standard Flap
1	900mm	09	900mm	1	PP Plastic Edge	1	180° Flap
2	1000mm	10	1000mm	2	PROFItec Edge	2	Downward Opening Flap
		12	1200mm			5	no Flap
ESI	D 🚣	13	1295mm				
4	800mm	15	1500mm	► se	e page 023 for details	► se	ee page 023 for details
5	900mm	16	1600mm				
6	1000mm	18	1800mm				
		20	2000mm				
		23	2303mm				



## **PROFIconnect** -More flexibility due to seperation of Base Unit & Mobile Bench









#### PROFIconnect Base Unit

The Base Unit consists of:

- L-shaped base made of aluminium profile with leveling screws and prepared for floor fixation.
- Bench legs optionally made of SINGLE / MULTI / ENGERY or ENERGY 45° depending on the required configuration.
- Solid bench frame with spaceous cable tray (200x170mm) made of tubular steel and sheet steel. Sides with sleeves for a vibrationfree and flush connection of the bench legs.
- Durable, light grey 30mm thick shortened benchtop, edges with 3mm PP plastic edge. Sides with cutout for the connection of extensions. Optionally with rear sided cable tray and cable flap with rubber lip.
- Incl. 2x steel wall-mounting brackets.
- Durable, light grey powder coating, aluminium profiles according to RAL Code.
- ESD version with surface and volume conductive benchtop conforming to DIN EN 61340-5-1 and ESD box at the bench frame.

#### **Bench Legs /Extensions**



Bench Legs SINGLE/MULTI SINGLE without any cable runs. MULTI for hidden cable run between floor and calbe tray.



Bench Legs ENERGY For the modular acceptance of KP modules (chapter 10). Select from sockets, interfaces, mains protection and cable access modules.



Bench Legs ENERGY 45°  $45^{\circ}$  tilted front and for the acceptance of KP modules, extra slot to the front side for the modular acceptance of accessory.



Standard flap (D:175mm) 90° to the rear opening flap with special metal hinges



Short standard flap (D: 90mm)



180° flap with to front opening flap, if rear opening is for some reason not practical

#### **PROFIconnect Base Unit**

Wio	dth		Depth		Bench Leg/Extension		Cable Flap		Version
<b>12</b> 120	00mm	3	300mm	1	SINGLE / SINGLE/MULTI	0	no Flap with Cutout for Extension	0	Standard
<b>13</b> 129	95mm	4	400mm	2	MULTI / SINGLE/MULTI	1	Standard Flap	5	ESD 🔼
<b>15</b> 150	00mm	5	500mm	3	SINGLE / ENERGY/45°	2	Short Standard Flap		
<b>16</b> 160	)0mm	6	600mm	4	MULTI / ENERGY/45°	3	180° Flap		
<b>18</b> 180	00mm			5	ENERGY / ENERGY/45°				
20 200	)0mm			6	ENERGY 45° / ENERGY/45°				



#### PROFIconnect Mobile Bench

Mobile bench for easy location change and docking to the base or other mobile benches, consisting of:

- L-shaped base made of aluminium profile 40x40mm.
- Four twin casters (100kg load capacity /pcs) with brake and position lock for a very firm stand.
- Bench legs made of aluminiium profile SINGLE.
- Solid bench frame made of tubular steel. Sides with sleeves for a vibrationfree and flush connection of the bench legs.
- Durable, light grey powder coating. Aluminium profiles according to RAL Code.

- Hardwearing, light grey 30mm thick benchtop. Sides with 30mm PP plastic edge and optical zero-joint.
- Optional: benchtop with rounded edges or with solid plastic profitec edge.

#### ESD Version:

- Surface and volume conductive benchtop according to DIN EN 61340-5-1.
- Earthing box with press studs for wrist bands installed under the benchtop.
- Conductive casters for continous dissipation from benchtop to floor.





PRC	Flconnect Mobile	Ben	ch 447.	BB 1	Г.9 Р А		
BB	Width	т	Depth	Ρ	Benchtop	A Version	ı
12	1200mm	5	500mm	1	squared, all sides with 3mm PP plastic edge	0	Standard
13	1295mm	6	600mm	2	rounded front edges, all sides with 3mm PP plastic edge	5 📩	ESD
15	1500mm	7	700mm	3	squared with PROFItec edge		
16	1600mm			4	rounded frond edges, with PROFItec edge		
18	1800mm						
20	2000mm						



#### 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

PRO	PROFI Suspended Cable Tray 419. BB 0. F 2 A										
BB	Width			F	Rear Profile	Α	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					
10	1000mm	18	1800mm	1	with cutout for ENERGY		(60mm rear overhang)				
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.

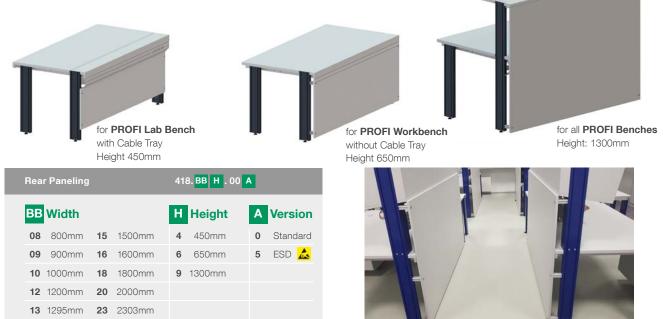
419.035.000 419.035.005

for Standard Cable Tray 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.





#### 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	o 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 BENCHTOP UPSTAND

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

Rear Benchtop Upstan	d	
419.700.000	Standard per Meter	
419.700.050	ESD per Meter	

2. 2. 2. 2. 2. 2. C

#### 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!**

#### PROFI CANTILEVER BENCHES



#### PROFI C-LIFT BENCHES



#### **PROFI Cantilever for PROFI Benches**

- retrofittable lifting system
- either electrically or with hand crank adjustment
- Lifting height:
- Bench height:

• Lifting speed:

- min. 750mm • Lifting force: 3000 / 3500N
- 15mm / sec

300 / 400 / 500mm

#### **PROFI C-Lift Benches**

- powerful lifting system, max. lifting force of up to 640kg
- ideal for corner or row solutions with more synchronized lifts

450mm

- Lifting height:
- Bench height:
- Lifting force:
- Hubgeschwindigkeit: 9 / 18mm / Sekunde

730 - 1180mm 1600N / 4000N / 6400N

036



Generally the lifting systems are distinguished in the number and type of lifts, as well as the lifting force and lifting height. So the choice is mainly depending on the application.

What ever you decide for, all systems are extraordinary durable, move with low vibration and are have very good stability even in retracted position.

#### PROFI X-LIFT BENCHES QUATTRO

#### PROFI X-LIFT BENCHES DUO





#### **PROFI X-Lift Quattro:**

- Sit-/ stand workstation with 4 lifts, suitable for very tall persons due to huge lifting heigth (German standard => 600mm) Lifting height: 650mm
- Bench height:
- Lifting force:
- Lifting speed:
- 4800N 38mm / sec.

630 - 1280mm

#### **PROFI X-Lift Duo:**

• Sit - / stand workstation with 2 lifts for universal lab / office applications with no heavy load requirements

650mm

- Lifting height:
- Bench height:
- Lifting force:
- Lifting speed:
- 630 1280mm 1600N 38mm / sec.

www.hera.de | Technical details are subject to change. © 2023.09



# HEIGHT ADJUSTMENT **EVEN FOR RETROFITTING**

#### **OPTION CANTILEVER LIFT** FOR PROFI BENCH

Each PROFI workbench or PROFI lab bench can be equip- The option Cantilever Lift for PROFI benches consists of: ped 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 • 2 or 4 hydraulic lifts. cantilever lifts even later on.

hand crank or electrically with a hydraulic lifting system.

- Nicely shaped cantilever base with two outer shells and special drive mechanism.
- Rear sided perforated backplane (H:300mm) for high rigid stability.
- placed further to the rear, the benches can be equipped with Central mounted hydraulic pump under the benchtop or in the cable tray for hand crank or electric adjustment.
- Height adjustment is either manually with a locking bolt, by Lowest bench position 750mm, in case of retrofitting: the initial bench height.
  - Complete set of hoses hiddenly installed under the benchtop.





#### Hand Crank Height Adjustment

- Two hydraulic cylinders (only for bench depth 800) or four hydraulic cylinders (bench depth 800/900/1000) installed in PROFI profilesType
- 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.

410.004.907: Synchronization Cable for Bench Combinations

# 

#### 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 benchtop or in the cable tray.
- Lifting speed: 15mm / sec.
- Control with overload protection.
- Control element with memory for 4 heights (display with height indication.



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#### Cantilever Leg for PROFI Bench

#### 400. BB T . HH V

BB	Width	T	Depth	ΗH	Height Adjustment	۷	.
08	800mm	0	800mm	10	Manual Heigh Adjustment (750 - 1250mm)	1	ł
09	900mm	1	900mm	23	Hand Crank with 2x Cylinders (3000N) Lift: 300mm	5	1
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	Op	oti
16	1600mm			45	Hand Crank with 4x Cylinders (3500N) Lift: 500mm	410 Syr	
18	1800mm			33	Electric Drive with 2x Cylinders (3000N) Lift: 300mm	Ca	ble
20	2000mm			34	Electric Drive with 2x Cylinders (3000N) Lift: 400mm	Co 29	
23	2303mm			35	Electric Drive with 2x Cylinders (3000N) Lift: 500mm	Lift	-C
				53	Electric Drive with 4x Cylinders (3500N) Lift: 300mm	Ma 293	
				54	Electric Drive with 4x Cylinders (3500N) Lift: 400mm	Lift	-C
				55	Electric Drive with 4x Cylinders (3500N) Lift: 500mm	of I	Vla

#### V Type

1 bench installed

5 retrofit

#### Options:

410.004.907 Synchronization Cable for Bench Combinations 293.600.100 Lift-Control wired to input of Mains Module 293.600.010 Lift-Control wired to output of Mains Module





#### **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 control element. 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.

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- 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 chipboard 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 (Ifits are not included and need to be ordered seperately)

### Your advandage 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**:

- control element 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



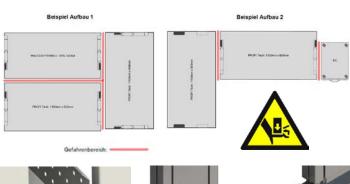
#### PROFI C-Lift Bench without Lifts 41 T . BB V .7 K F

T Depth	BB Width	V Front Edge	K Cable Flap F for Extension
<b>0</b> 800mm	08 800mm	0 70mm Drop Edge	0 Standard Flap 1 MULTI / SINGLE
<b>1</b> 900mm	09 900mm	1 PP Plastic Edge	1 180° Flap 3 ENERGY Standard / 45°
<b>2</b> 1000mm	10 1000mm	2 PROFItec Edge	2 Downwards Opening Flap
	12 1200mm		5 no Flap
ESD 🙇	13 1295mm	Details: see page 021	<ul> <li>Details: see page 023</li> <li>Details: see page 023</li> </ul>
<b>4</b> 800mm	15 1500mm		
<b>5</b> 900mm	16 1600mm		
<b>6</b> 1000mm	18 1800mm		
	20 2000mm		Accessory:
	23 2303mm		410.003.907: Syncronization
			cable for bench
Lifts	Force	Speed	combinations
410.003.160	2x 800N	max. 18mm/s	Lift control connected to the input of the
410.003.320	2x 2000N	max. 9mm/s	mains panel
410.003.321	2x 2000N	max. 18mm/s	293.600.010: Lift control connected to the output of the
410.003.640	2x 3200N	max. 9mm/s	mains panel
410.003.000	.003.000 no lifts C-Leg bench, fixed he		



#### 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 anodized for PROFI Cantilever or / and C-Lift Benches (row configuration)
419.021.190	Spacer 40mm powder coated 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











#### 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.

400.999.007

- Adjustable range with 300mm lifts: 750 1050mm.
- Adjustable range with 400mm lifts: 750 1150mm.



400.999.008	ESD	

Standard

#### 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







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# 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 unter 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

#### **Option Side Panels:**

Set of optical side panels, which can be clipped to the left and right side of the lifts.

Made of durable powder coated sheet steel according to RAL Code.







**F** Extensions



PROFL extensions - no flap - with cutout for FNFRGY

prepared for **PROFI** extensions - with flap - with cutout for SINGLE/MULTI

extensions - no flap - no benchtop-

cutout

41 T. BB0.800, F

**BB** Width

- no flap - with cutout for SINGLE/MULTI

T Depth ESD A 1500mm not prepared for Extensions 08 800mm 15 0 Standard 16 1600mm prepared for SINGLE/MULTI/ENERGY 6 800mm 09 900mm 1 0 800mm 1800mm 900mm 7 900mm 1000mm 18 10 20 2000mm 410.000.800 Set of Side Panels (D: 800mm) 2 1000mm 8 1000mm 12 1200mm 23 2303mm 412.000.800 Set of Side Panels (D: 900/1000) 1295mm 13 Bench Top for PROFI X-Lift Quattro: 15 T.BB P.K V F K Flap T Depth BB Width P Type V Edge **F** Extensions

	•			<u> </u>				
0	800	<b>08</b> 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	<b>2</b> with 180°	1 PROFItec	1	for SINGLE/ MULTI
2	1000	<b>23</b> 2303	4 Beech Multiplex 30mm	ſ			2	for ENERGY



1









# GREAT VARIETY FOR **X-LIFT BENCHES** WITH **REPLACABLE** BENCHTOPS

#### **Benchtop Variants:**

- Material (chipboard or solid timber).
- HPL coated (office quality) or 0,8mm HPL layer (laboratory quality).
- ESD or standard version.
- Color of decor (light grey, white, beech or maple).
- Front edge (radius, carved or with reinforced edge).



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#### BASE FOR X-LIFT DUO

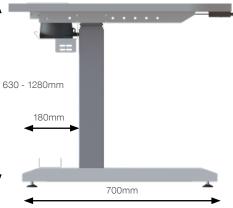
Height adjustable bench base (630mm - 1280mm benchtop not included) consisting of:

- Two telescopic lifting colums with silent operating spindledrive, durable white aluminium powder coating. Cross section: 60 x 90mm, Lifting height: 650mm; max. lifting force: 2 x 800N. Max. lifting speed: 38mm/sec.
- Fully synchronized control box mounted under the benchtop with hidden cable run between control unit and lifts. Anticollision function (programmable tripping force to prevent squeezing of persons or things. If the programmed force is exceeded, the lifts stop and reverse movement.
- Intuitive control element with app control and position • memory installed at the right side of the benchtops.
- Nicely shaped and very stable sheet steel feets with leveling screws. Durable powder coated according to RAL Code. Depth: 700mm.
- Stable H-frame made of sheet steel with integrated rearsided • cable tray (D: 160mm; H: 95mm). Durable conductive powder coating in light grey.
- Optionally with base lower cable tray for an extra cross • stiffening, for cable runs when placed in a row and as endposition for mobile containers.
- Completely preassembled.

E



Base for X-Lift Duo		193. <mark>BB</mark> 0. <mark>A</mark> 01			
BB	Width			Α	Version
06	600mm	14	1400mm	0	Standard
80	800mm	16	1600mm	1	with Lower Cable Tray
10	1000mm	18	1800mm		
12	1200mm	20	2000mm		



Benchtops for PROFI X-Lift Duo

15 T BB P 9 V)

#### T Depth BB Width

7	700	06	600mm	14	1400mm	
8	800	08	800mm	16	1600mm	
9	900	10	1000mm	18	1800mm	
		12	1200mm	20	2000mm	

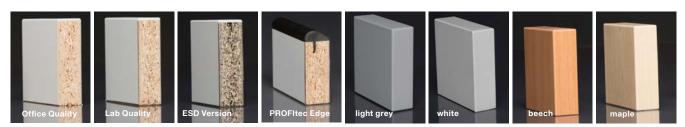
#### P Benchtop

n	0	Lab Quality light grey/ white	7	ESD Lab Quality	0	PP 3mm
n	1	Office Quality light grey / white	8	ESD Office Quality	1	PROFIted
n	2	Lab Quality beech / maple (not B	ESC	))	3	Radius
n	3	Office Quality beech / maple (no	t ES	SD)	4	Carved











#### BENCHTOPS WITH CARVED FRONT EDGE

• Option front edge with 150mm radius.

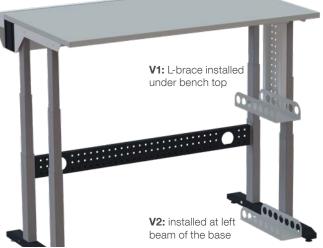




#### PC SUPPORT FOR X-LIFT BENCHES

- 2-piece support for a stepless adjustable width. • Dimensions: 440 x 90mm (DxH).
- V1: Solid L-brace, which is ficxed under the benchtop. Dimensions: 35x 200 x 600mm (WxDxH).
- V2: Installed at the right or left beam of the base. • Note: Monitor cable of mind. 3m is necessary.
- Sheet steel parts durable light grey powder coated.

PC Support for X-Lift Benc	hes V1	V2
for PC Width: 160 - 210mm	491.082.100	491.083.100
for PC Width: 130 - 180mm	491.082.150	491.083.150
for PC Width: 90 - 130mm	491.082.200	491.083.200



#### OPTION L-COMBINATION FOR X-LIFT QUATTRO

With this option two PROFI X-Lift Quattro Benches can be combined to an ergonomic corner combination, consisting of:

- Synchronization cable and cable duct. •
- Base beam with reduced length. •
- Assembly set. .



410.500.800



Option L-Combination for PROFI X-HUB Quattro



- Lower side of the benchtop with 4x thread inserts for the fixation of suspended containers (left and right side).
- Adapting frame made of 19mm melamine resin covered chipboard.
- Height: 50mm.

Suspended Container Adapter for X-Lift 43 A.000. T 80				
A Version	т	Depth		
1 Standard	5	580mm (for Bench Depth: 900mm)		
3 ESD 🚣	6	680mm (for Bench Depth: 1000mm)		



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#### MORE ACCESSORY FOR X-LIFT BENCHES

- Retrofitting of intuitive control element.
- Software and cable for programming end positions and the anticollision function via USB.
- Synchronization cable (serial cable for multiparallel operation of X-Lift benches; cable length: 2.000mm).
- Spacers for preventing shearing effects (effective gap in row set-ups: 40mm; fixed at the base; 2x anodized aluminium pieces with thread inserts and assembly kit).
- Cable drag chain fixed between cable tray and lower side of the base (black openable plastic elements 38 x 20mm, length: 1200mm).
- Option control element connected to mains module (terminal clamp for power cable and lifts).

#### Accessorv for X-Lift Benches

410.005.918	Retrofitting: Intuitive Control Element with Desk Control App
410.005.909	Programming Software and Cable
410.005.929	Synchronization Cable (max. 4 Control Boxes)
419.021.300	Spacer for X-Lift Quattro Benches in Rows
419.021.400	Spacer for X-Lift Duo Benches in Rows

410.003.920	Drag Chain between Cable Tray and Bottom
410.013.920	Drag Chain to adjoining Bench in Bench Rows
293.600.100	Option Control connected to Input of Mains Module
293.600.010	Option Control connected to output of Mains Module

#### Intuitive Control Element with Desk Control App:

With the Desk Control App the X-Lift Benches can be connected via bluetooth to iOS - and android mobile devices or to a PC (Windows 10). After having installed the app, the operator will be reminded periodically to change his/ her body positure and instant statistics offer the daily achievements. Besides the height adjustment, the operator can save the preferred position in the app. The operator will feel the benefit if for sitting as well as standing working position always the most ergonomic height would be selected.







#### OPTION X-LIFT BENCH WITH CASTERS

Set of casters varying with respect to the application:

- for easy applications: 4x twin casters
   Ø: 75mm 2x total locking; height: 90mm; load capacity per caster: 80kg.
- for heavy applications: 4x twin casters
   Ø: 100mm 2x total locking and 2x position lock; height: 120mm; load capacity per caster: 100kg.
- for a maximum of steadfastness: 4x lockable lifting casters; heavy duty polyamid caster 63mm; height: 104mm; load capacity per caster: 500kg.



#### Set of Casters for X-Lift Benches

471.000.000	Set of Standard Casters Ø: 75mm
471.000.050	Set of ESD Casters Ø: 75mm 🛛 📩
471.000.200	Set of Standard Casters Ø: 100mm
471.000.250	Set of ESD Casters Ø: 100mm 🛛 🙇
471.000.300	Set of Heavy Duty Lifting Casters







# **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.

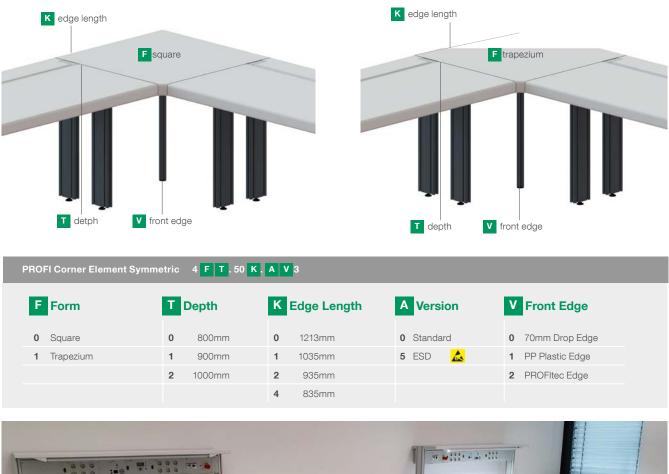




#### PROFI CORNER ELEMENT SYMMETRIC

- 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)





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					
Т	Depth 1 / 2	K Edge Length	A Version	V Front Edge	
3	800 / 900mm	<b>0</b> 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.





Bench Combination with Corner Element 45°

PROFI	Corner Element Triangle	4 F T .505. A V 3		
F Fo	orm	T Depth	A Version	V Front Edge
0	45°	<b>0</b> 800mm	0 Standard	0 70mm Drop Edge
1	270°	<b>1</b> 900mm	5 ESD	1 PP Plastic Edge
		<b>2</b> 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 Lenght		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).



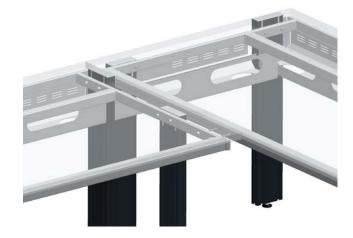
Edge Length		Edge Length	
835 x 835mm	419.520.002	1200 x 1000mm	419.532.002
935 x 935mm	419.521.002	1000 x 1200mm	419.530.002
1035 x 1035mm	419.522.002	1213 x 1213mm	419.524.002





#### ASSEMBLY SET FOR **L-COMBINATION**

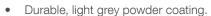
- Assembly set for setting up a L-Combination with two PROFI benches.
- Incl. bore in the front of the bench frame.



Assembly Set for L-Combinations		
409.500.000	for PROFI Benches and PROFI Cantilever	
940.817.100	for C-Lift Bences	

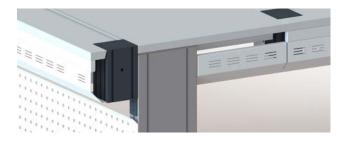
#### CABLE TRAY FOR **L-COMBINATION**

- Compensating cable tray for L-Combinations, to be attached at 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.



- Incl. assembly set for the height adjustable fixation to the PROFI bench legs.
- Dimensions: 200 x 200mm (WxH).





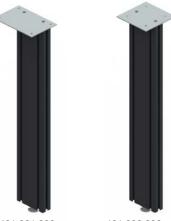
Left Side	for PROFI Bench	for C-Lift Bench	Right Side	for PROFI Bench	for C-Lift Bench
Bench Depth: 800mm	419.520.102	419.520.103	Bench Depth: 800mm	419.532.102	419.532.103
Bench Depth: 900mm	419.521.102	419.521.103	Bench Depth: 900mm	419.530.102	419.530.103
Bench Depth: 1000mm	419.522.102	419.522.103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

F	OFI 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!







PROFI Meeting Elem	ent 40 T .53 K .000			
T Depth	K Circle			
<b>6</b> 800mm	Quarter	Half	Full	
<b>7</b> 900mm	0 Standard	2 Standard	4 Standard	
<b>8</b> 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 Adjusta	ble Side Table
118.100.500	Standard
118.100.000	ESD 📩



410.004.907

410.003.907

940.817.100



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#### 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.

Accessory for Height Adjustable Combinations

#### Your advantages:

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



Height Adjustable L-Combination with 4 Lifts



Synchronization Cable / PROFI Cantilever Combin.

Synchronization Cable / C-Lift Combinations

Assembly Set for C-Lift L-Shape





#### 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 Soc	ckets	S Switch	ZO	able	F Color
3	3 Sockets Type F	<b>0</b> 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	<b>2</b> red
			5	5m Cable	
293.600	6.000 Fixing Set for PROFI P	Profile			
293.600	0.010 Connection to the Mai	ins Panel		293.642.100	4x Sockets Type G (BS)
293.600	0.030 Option Socket Strip fix	ked in Cable Tray		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 3G1,50mm<sup>2</sup> (length 2m) with angled plug.
- With 2poles switch.
- Dimensions: 70 x 45mm (WxH).



# 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 modularily.
- 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 Sy	stem 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 Po	wer Syste	m with Aluminium Profile
293.336.	039 3	fold Socket, 220mm
293.336.	067 3	fold Socket, red, 220mm
293.906.	014 4	fold Socket, 263mm
293.906.	003 3	fold Scoket with Switch, 263mm
293.906.	031 3	fold Socket and Switch for Sockets and Output
293.906.	000 2	fold Socket and Frame for 1x Keystone Module, 220mm
293.906.	001 2	fold Socket and Frame for 2x Keystone Module, 263mm
293.336.	065 R	CBO 2poles B16A, RCD 30mA, 220mm
293.336.	004 C	overvoltage Protection 2kV + Mains Filter 30MHz, 220mm







#### STEP Accessory

293.375.038	Connecting Cable H05VV-F3G 1,5mm <sup>2</sup> , 2m
293.375.003	Power Cable H05VV-F3G 1,5mm <sup>2</sup> , 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 C	able 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

#### 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 Vent	lation 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	





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	











#### **PROFI CONNECTION BOX** 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.

ox for Cable Tray



#### 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

419.032.90

#### BRUSH CHANNEL

- Sheet steel channel with durable powder coating ac cording 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, slottet



for SINGLE/MULTI, closed

Brush Channel	, vertical	401.0 <mark>HH</mark> . A F 0,	T		
HH Height			A Version	F Extension	T Cutout
<b>03</b> 300mm	<b>07</b> 700mm	<b>11</b> 1100mm	5 closed	0 SINGLE/MULTI (W: 40mm)	0 no Benchtop Cutout
<b>04</b> 400mm	<b>08</b> 800mm	<b>12</b> 1200mm	6 slotted	1 ENERGY (W: 102mm)	1 with Benchtop Cutout
<b>05</b> 500mm	<b>09</b> 900mm				
<b>06</b> 600mm	<b>10</b> 1000mm				



#### 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).

PRO	DFI 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



#### SLIM/MINI PC-SUPPORT, UNDERTOP

- For the assembly at the lower side of the bench top.
- Adjustable height (200-358mm), width (50-100mm) and depth (125-360mm).
- Theft-protection with lock and key.
- Solid sheet steel construction in silver or black.

SLIM/MINI PC-Su	oport, Undertop	
491.084.000	silver	
491.084.005	black	

#### 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 Exte	nsion	
491.068.501	Standard	
491.068.551	ESD	<u></u>





#### 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 untensils.

PROFI Keyboard Exter	nsion with Mouse Pad
491.060.000	grey
491.060.005	black





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#### PROFI HEIGHT ADAPTERS

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





#### PROFI LEG SHELL

PROFI Height Adapters, Set

- 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

01.300.900



#### 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



#### 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

19.011.000



#### PROFI BENCH CONNECTOR, SET

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



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)	

#### PROFI STABILIZER, PAIR

The PROFI stabilizer prevent 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

PROFI Bench Connector

- Durable powder coated according to RAL Code.
- Incl. assembly set.

PROFI Stabilizer, Pai

01.350.900



#### 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





#### 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 Hood 125 x 80mm

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



#### 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



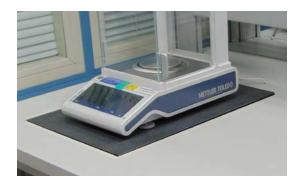
#### VIBRATION DAMPED **GRANITE INLAY**

Optionally for PROFI benches used with scales or microscopes.

- Squared cutout with PP plastic edge in bench top.
- Sheet steel construction for granite inlay with 4x vibration damper.
- Inlay made of black Swedish granite, dimensions: 470x300x60mm (DxWxH).

Vibration Damped Granite Inlay

940.798.300



#### PROFI BENCH FOR SCALE AND MICROSCOPE 500 X 800MM

PROFI bench 500 x 800 x 780mm (WxDxH) consisting of:

- Solid bench frame made of tubular steel with thread inserts for vibration dampers.
- Sides with sleeves for a flush and vibration-free installation of the bench legs.
- Bench legs made of 4x aluminium profile SINGLE with six surrounding slots and leveling screws.
- 4x vibration dampers between frame and granite top.
- Black Swedish granite top with polished surface, C120, dimensions: 500 x 800 x 80mm.



940.841.800





#### CHAPTER 3: PROFI BENCH RACKS

- 068 Extensions MULTI and SINGLE
- 069 Extensions ENERGY and ENERGY 45°
- 070 Cross Profile with TFT Support
- 072 Support and Heavy Duty Support
- 073 Shelf
- 074 Swivel and Function Shelf
- 075 Aluminium Rail for PROFI Shelf
- 076 Sheet Steel Swivel Shelf in ESD
- 077 Multimedia Support
- 079 Compact Terminal
- 080 KK Modules
- 083 Brush Channel
- 084 Cable Tray for Shelf
- 085 Cable Clearance Drawer
- 086 Corner Support and Shelf
- 088 Cable Tray for Corner Shelf
- 089 Shelf Rack

- 090 Shelf Rack with Sliding Doors
- 091 Shelf Rack with Roller Shutter
- 092 Shelf Rack with Tilted Front
- 093 Seperation Panels
- 096 LED Workstation Lamp ST (Standard)
- 097 LED Workstation Lamp PR (Premium)
- 098 LED Workstation Lamp with Gooseneck
- 099 LED Workstation Lamp Accessory
- 100 Universal LED Flatlight
- 102 Training System Frame and Sliding Mechanics
- 104 Installation Wall for Training Boxes
- 108 Overhead Frame with Overhead Lamp
- 111 Perforated Backplane
- **112** Bin Holder and Backplane for Socket Strip
- 114 PROFI Switvel Arm
- 115 Document Protector, Bottle Holder, Swiching Module
- 116 Cable Comb and Cord Holder



#### **PROFI EXTENSIONS** SINGLE / MULTI, PAIR

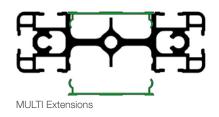
- Aluminium extrusions for bench configurations with shelves or suspended instrument racks.
- Dimensions: 125 x 40mm.
- Modular extendable.
- Durable powder coated according to RAL Code.

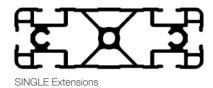
MULTI Extensions:

- 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.





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

#### **PROFI ADAPTION** TO OTHER BENCHES



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



PROFI Adapter for Extensions, Pair

401.100.900 for SINGLE / MULTI Extensions



#### PROFI EXTENSIONS ENERGY, PAIR

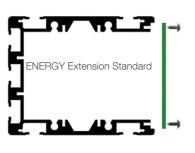
- Two vertical aluminium extrusions prepared for the acceptance of modules in KP raster, suitable for the installation on PROFI and EASY bemches.
- With surrounding slots for the assembly of PROFI shelves and PROFI instrument racks.
- Durable powder coated according to RAL Code.

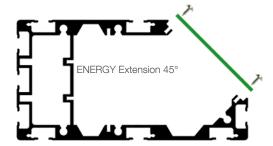
#### ENERGY Extensions, standard:

• Dimensions: 102 x 125mm (WxD).

#### ENERGY Extensions 45°:

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













PROFI Bench with
 Power Legs

PROFI Extensions ENERGY	320. <mark>HH B</mark> .9 A 0			
HH Height			<b>B</b> Fixation	A Version
02 2x 4KP H: 200mm	07 2x 16KP H: 700mm	12 2x 29KP H: 1200mm	5 EASY (Work -) Bench	0 Standard
03 2x 6KP H: 300mm	08 2x 19KP H: 800mm	13 2x 31KP H: 1300mm	6 PROFI Bench	<b>5</b> 45°
04 2x 9KP H: 400mm	09 2x 21KP H: 900mm	14 2x 34KP H: 1400mm	7 PROFI with Power Legs	
05 2x 11KP H: 500mm	10 2x 24KP H: 1000mm	15 2x 36KP H: 1500mm	320.000.900 Fixing Bracket for	or one sided
06 2x 14KP H: 600mm	11 2x 26KP H: 1100mm		0	NERGY 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									
Omm)									



#### 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 PROFI 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								









491.052.100

491.057.100





# 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!





#### 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).



PRO	FI Support		424.0 BB.0 F	)						
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									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





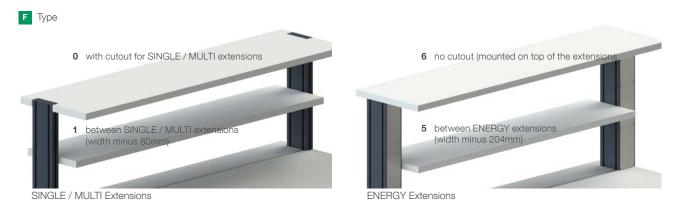
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#### PROFI SHELF

- 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.



#### PROFI Shelf 328. BB T . F B A

BB	Width	TD	epth	F	Extensions	В	Fixation	Α	Version	
05	500mm	3 3	300mm 0 Cutout for SINGLE / MULTI Extensions 0		0			Standard		
06	603mm	4 4	100mm	1	between SINGLE / MULTI Extensions		(standard support or instrument rack)	5	esd 📩	
08	800mm	5 5	500mm	3	Cutout for ENERGY Extensions 45°	1				
09	900mm			4	Cutout for ENERGY Extensions		(heavy duty support, face-down multimedia support)			
10	1000mm			5 between ENERGY Extensions		2	Face-Up Multimedia Support			
12	1200mm			6 no Cutout		(Usable depth -85mm)				
13	1295mm	-	_	424.029.500:				424.028.500:		
15	1500mm				Optional Milled Store Edge	Ν		Option to the	Shelf Moved	
16	1600mm				<ul> <li>Milled Stop Edge</li> <li>per meter, 6mm high</li> </ul>				mm moved to the	
18	1800mm				per meter, offint high	4		fro	nt to enable cable	
20	2000mm	R.	1.						guidance if placed to the wall or back-	
23	2303mm							to-	back	





#### PROFI SWIVEL SHELF

- Light grey, 30mm thick melamine resin covered chipboard, 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 continous conductive connection between shelf, swivel support and extensions.



#### PROFI Swivel Shelf 329 .<mark>BB T</mark> . F 0 A

BB	Bench Wid	th				Т	Depth	F Extensions	Α	Version
05	500mm	10	1000mm	16	1600mm	3	300mm	5 for SINGLE/ MULTI	0	Standard
06	603mm	12	1200mm	18	1800mm	4	400mm	(-80mm)	5	esd 📩
08	800mm	13	1295mm	20	2000mm	5	500mm	0 for ENERGY		
09	900mm	15	1500mm	23	2303mm			(-204mm)		

#### 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 detph.
- Incl. assembly set.



adjustable stop edge for instruments

stop edge usable for magnets

#### **BB** Bench Width Depth **F** Extensions **A** Version т 05 500mm 10 1000mm 1600mm 300mm for SINGLE / MULTI Standard 16 3 0 06 603mm 12 1200mm 1800mm 4 400mm (-80mm) 5 ESD 18 A 08 800mm 13 1295mm 20 2000mm 5 500mm 5 for ENERGY 09 900mm 15 1500mm 23 2303mm 6 600mm (-204mm) 427. BB 0.000: Option: Adjustable Stop Edge

#### PROFI Function Shelf 427. BB T . F 0 A



#### OPTION ALUMINIUM RAIL FOR PROFI SHELF

- 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 Wid	th				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	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 Termina** 

329.000.000









A

#### 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 Widt	h				т	Depth	F	Extensions
05	500mm	10	1000mm	16	1600mm	1	300mm	1	for SINGLE-/ MULTI
06	603mm	12	1200mm	18	1800mm	0	400mm		(- 80mm)
08	800mm	13	1295mm	20	2000mm			5	for ENERGY
09	900mm	15	1500mm	23	2303mm				(-204mm)







# ALL CONNECTORS IN **ERGONOMIC REACH**

The **Multimedia Support** modular channel at the rear side, 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 SUPPORT

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)

#### PROFI Multimedia Support 424.0 BB. A F 0

10000 E 0000

Multimedia Support (face-down equipment)

	Width & Equipment (SING	iLE / El	NERGY)	A	Version	F	Extensions
05	500mm (39cm / 26cm)	13	1295mm (118cm/ 105cm)	8	straight	0	for SINGLE / MULTI
06	603mm (49cm / 36cm)	15	1500mm (139cm / 126cm)		(modules face-up)	1	for ENERGY
08	800mm (69cm / 56cm)	16	1600mm (149cm / 136cm)	9	tilted		
09	900mm (79cm / 66cm)	18	1800mm (169cm / 156cm)		(modules face-down)		
10	1000mm (89cm / 76cm)	20	2000mm (189cm / 176cm)				
12	1200mm ( 109cm / 96cm)	23	2303mm (219cm / 206cm)				

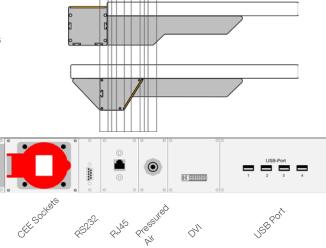
Lydifelent HPES

Modular equipment for Multimedia Support: The rear side of the multimedia support is prepared for KK modules, so please choose from page 080 - 082. Empty spaces are covered with blank panels.

with Switch

Example:

. Hal



R5232

RUAS Prossi

 $O_{\mathcal{N}}$ 

JSB Port



#### **COMPACT** TERMINAL

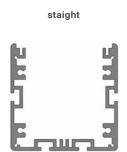
- Aluminium channel with durable light grey powder • coating.
- Front prepared for the flexible acceptance of modules . in KK raster.

Straight Version:

• Applicable for mutimedia support face-up in cable tray or between extensions, etc.

Tilted Version:

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







Dimensions: 70 x 95/52mm

#### M Installation



1 Bench Top Assembly

Straight

8

2 below Shelf



**3 with Mounting Brackets** 4 between Extensions

#### Compact Terminal 29 A . BBB. M 00

Α	Version	BBB Width	Μ	Montage
7	Tilted	min. 10cm, max. 230cm	1	Bench Top Assembly (equippable width - 1cm)

- 2 Below Shelf (equippable width 1cm)
- 3 Sides with Mounting Brackets (equippable width 9cm)

297.000.000 : customized cable access

- Between Extensions (width = equippable width) 4





#### 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.

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> <li>1fold</li> <li>2fold</li> <li>1fold, no illumination</li> <li>Switch with Lamp Symbol</li> <li>DC Switch 1fold 24V/10A</li> </ul>	4cm 4cm 4cm 4cm 4cm 5cm	
200.020.101 200.021.101 200.025.101 200.026.101	<ul> <li>Emergency Off / Rotation Release</li> <li>Emergency Off / Key Release</li> <li>Off Button (NCC)</li> <li>On Button (NOC)</li> </ul>	5cm	
200.052.XX1	<ul> <li>Automatic Circuit Breaker (1pol.) with Undervoltage Release for Emergency Off Circuit and Voltage Control Lamp</li> <li>xx = Tripping Current</li> <li>Note:</li> <li>1poles circuit breaker is only applicable for reverse protected plugs!</li> </ul>	15cm	
200.040.101 200.041.101 200.041.701 200.041.401	<ul> <li>RCD 2poles 25A / 30mA</li> <li>RCBO 16A/10mA</li> <li>RCBO 13A/10mA</li> <li>RCBO 10A/10mA <ul> <li>(over - and residual current protection)</li> </ul> </li> </ul>	14cm	
200.050.XX1 200.051.XX1	<ul> <li>Thermomagnetic fuse xx = Tripping Current (1A - 16A)</li> <li>Automatic Circuit Breaker B-Characteristics XX = Tripping Current</li> </ul>	6cm 14cm	
200.060.101 200.061.101 200.063.101	<ul> <li>Miniature Contactor</li> <li>1x Phase Control Lamp (L)</li> <li>3x Phase Control Lamp (L1, L2, L3)</li> </ul>	10cm 5cm 12cm	Schütz o o o o o o o o o o o o o
200.101.x01 200.102.x01 200.103.x01 200.104.x01 200.105.x01	<ul> <li>1fold PE Socket</li> <li>2fold PE Socket</li> <li>3fold PE Socket</li> <li>4fold PE Socket</li> <li>5fold PE Socket</li> <li>1 Type F 6 Type L</li> <li>2 Type F with Flap 7 Type G</li> <li>3 Type J 8 NEMA 5-15</li> <li>4 Type J 9 NEMA 6-20</li> <li>5 Type E</li> </ul>	6cm 12cm 18cm 24cm 30cm	



#### **KK** MODULES

Art-No.	Module	Width	Picture
200.111.x01 200.112.x01 200.113.x01 200.114.x01 200.115.x01	Modules with Illuminated 2poles Switch: 1 fold PE Socket 2 fold PE Socket 3 fold PE Socket 4 fold PE Socket 5 fold PE Socket 1 Type F 6 Type L 2 Type F with Flap 7 Type G 3 Type J 8 NEMA 5-15 4 Type J 9 NEMA 6-20 5 Type E Other types on demand!	10cm 16cm 22cm 28cm 34cm	
xxx.xxx.201 200.150.101	<ul> <li>Optionally with Flap for PE Sockets</li> <li>Sockets for Floating Volage and External Isolating Transformer</li> </ul>	6cm	
200.205.101 200.203.101 200.205.201 200.205.301	<ul> <li>CEE Socket 5poles 16A red</li> <li>CEE Socket 3poles 16A blue</li> <li>Winsta Socket 5poles 16A</li> <li>FSH Socket 5poles 16A</li> </ul> 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	<ul> <li>4mm Safety Jacks</li> <li>PE Jack</li> <li>3poles (L, N, PE)</li> <li>5poles (L1, L2, L3, N, PE)</li> <li>Output for External DC Sources (+/-)</li> <li>Output for External AC Sources (L/N)</li> </ul>	2cm 6cm 8cm 6cm 6cm	
200.401.101 200.401.401 200.401.201 200.401.301	Quick Connectors for Pressured Air • 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	<ul> <li>Module with Keystone Frame</li> <li>Suitable Keystones: <ul> <li>RJ45 Coupling CAT 6 (angled)</li> <li>RJ45 - Cut / Grip Technology, shielded (F=0: black; 1: red; 2: green; 3: yellow;</li> <li>USB2.0 A-Socket &gt; A-Plug with Cable</li> <li>USB3.0 A-Socket &gt; C-Plug with Cable</li> <li>HDMI Socket &gt; HDMI Socket with Cable</li> </ul> </li> </ul>	d CAT 6 4: blue)	330.830.200         330.830.400         330.830.500         330.830.200



#### KK MODULES

Art-No.	Module	Width	Picture
200.524.101 200.525.101	<ul> <li>USB-Port 4fold 2.0</li> <li>USB-Port 4fold 3.0 Note: USB-Ports with external Power Unit</li> </ul>	15cm 15cm	USB-Port 1 2 3 4
200.541.101 200.542.101 200.543.101	<ul> <li>Sub-D Socket 15poles VGA</li> <li>Sub-D Socket 9poles RS232</li> <li>DVI-I-Socket</li> </ul>	3cm 3cm 7cm	
XXX.XXX.401 XXX.XXX.501 XXX.XXX.601 XXX.XXX.701 XXX.XXX.801 XXX.XXX.901	International Types • 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	• Blank Panle XX = width	cm	
200.800.100 200.800.101 200.810.101	<ul><li>Cable Gland M16</li><li>Cable Gland M20</li><li>Cable Gland M25</li></ul>	4cm 4cm 4cm	<u> </u>
200.835.000	• 5m Power Cord (3x 1,5mm²) with open end	1cm	
200.835.100	3m Power Cord (3x 1,5mm <sup>2</sup> ) with angled Plug Type F	1cm	
200.855.000	• 5m Power Cord (5x 2,5mm <sup>2</sup> ) with open End	2cm	
200.855.100	<ul> <li>5m Power Cord (5x 2,5mm<sup>2</sup>) with CEE Plug 16A red</li> <li>5m Power Cord (3x 1,5mm<sup>2</sup>) with CEE Plug 16A blue</li> </ul>	2cm	
200.XXX.XX5	Front Panels made in aluminium, durable powder coated and earthed		
200.XXX.XX6	IT Socket (red frame), with seperate input terminal for integration into the IT networks (not connected to circuit breaker)		



λΛ

#### 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 SINGLE/MULTI, closed

Brush Channe	l, vertical	401.0 HH. A F 0,	401.0 HH. A F 0, T							
HH Height			A Version	F Extension	T Cutout					
<b>03</b> 300mm	<b>07</b> 700mm	<b>11</b> 1100mm	5 closed	0 SINGLE/MULTI (W: 40mm)	0 no Bench Top Cutout					
<b>04</b> 400mm	<b>08</b> 800mm	<b>12</b> 1200mm	6 slotted	1 ENERGY (W: 102mm)	1 with Bench Top Cutout					
<b>05</b> 500mm	<b>09</b> 900mm									
<b>06</b> 600mm	<b>10</b> 1000mm									
Brush Channe	el, horizontal	401.0 BB. A M 0								
BB Width				A Version Muse	telletion					

BB	Width							Α	Version	Μ	Installation
05	500mm	09	900mm	13	1295mm	18	1800mm	5	closed	5	full Bench Width (-0mm)
06	603mm	10	1000mm	15	1500mm	20	2000mm	6	slotted	6	between SINGLE/MULTI (-80mm)
08	800mm	12	1200mm	16	1600mm	23	2303mm			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 Trav for PROFI Shelves 426, BB 9.00 A



BB E	Bench Wid	th						Α	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 1,5mm<sup>2</sup>.

# Steckdosenleiste für Ablagenkabelwanne293.630.100PE Socket 3fold (185x56x41), with 1,5m cable293.640.100PE Socket 4fold (288 x56x41), with 1,5m cable293.660.100PE Socket 6fold (340 x56x41), with 1,5m cable293.210.200PE Socket 10fold (530x70x60), switch and 3m cable293.600.010Option Integrated in Bench Wiring458.000.100Cable 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).

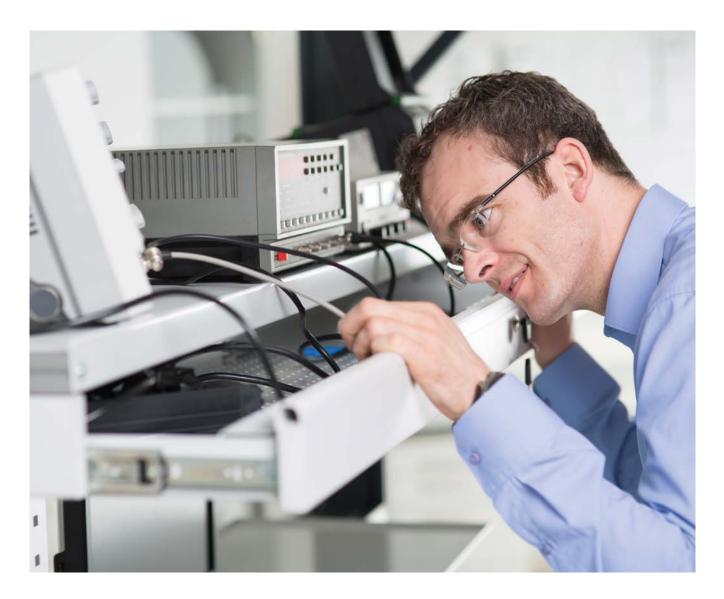


Cable	Con	b for Shelf o	r Racl	k	424. <mark>BB</mark> 9	9. 0 <mark>K</mark> 0			
	BB B	ench Widt	h						K Extensions
	05	500mm	09	900mm	13	1295mm	18	1800mm	0 Bench Width
	06	603mm	10	1000mm	15	1500mm	20	2000mm	2 between SINGLE / MULTI
	08	800mm	12	1200mm	16	1600mm	23	2303mm	4 between ENERGY



## **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 engough to connect your test items to the inor output of an instrument or a source, you have a bigger variety of highly specified laboratory devices nowadays and most of those even require extra data cables. The result is a tangled mess of cables, which uses lots of precious workspace. In order to keep your benchtops clear, our PROFI workstation can be equipped with a cable clearance comb or a cable clearance drawer, which eat up unrequired cable lengths and keep your benchtop clear for more important tasks.



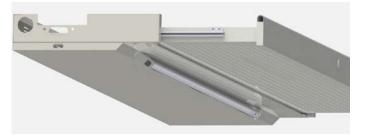


#### **CABLE CLEARANCE** DRAWER

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 ligh grey, with fully extensional telescopic rails and locking in endposition (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	e Cle	arance Drawer	420.	вв <mark>0.0</mark> К 5				
- 1	BB	Width					K	Extension
	08	800mm	13	1295mm	20	2000mm	0	for SINGLE / MULTI
	09	900mm	15	1500mm	23	2303mm	1	for ENERGY
	10	1000mm	16	1600mm				
	12	1200mm	18	1800mm				





#### 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
1	835 x 835mm	2

- 5
   935 x
   935mm
   4
   10

   2
   1035 x
   1035mm
   3
   12
- 4 1000 x 1200mm3 1200 x 1000mm
- 0 Standard

V Type

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 profiole (please state hight!).
- Durable powder coated according to RAL Code.



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

T	Depth	KE	dge Length					A 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 <u></u>





#### 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.



PR	ROFIC	Corner Shelf		424. TKA.0	01					
	Т	Depth	ΚE	dge Length					A	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 benchtop 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 shipboard.
- 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	<b>13</b> 1295mm	<b>2</b> 380mm (10H)	0 with Cutout for SINGLE / MULTI	1 Standard
06	603mm	<b>15</b> 1500mm	<b>3</b> 720mm (20H)	1 between SINGLE / MULTI (W: -80mm)	6 ESD 🧟
08	800mm	<b>16</b> 1600mm		5 between ENERGY (W: -204mm)	
09	900mm	<b>18</b> 1800mm		6 no Cutout (width = bench width)	
10	1000mm	<b>20</b> 2000mm			
12	1200mm	<b>23</b> 2303mm			

PROFI Corner Shelf Rack

423.5	ĸ	н	. 00	A	
_					

K	Edge Length	H Height	A Version
0	1213 x 1213mm	<b>2</b> 380mm (10H)	1 Standard
1	835 x 835mm	<b>3</b> 720mm (20H)	6 ESD <u></u>
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.



08         800mm         16         1600mm         5         between ENERGY (W: -204mm)           09         900mm         18         1800mm         6         no Cutout (width = bench width)           10         1000mm         20         2000mm         1	PR	OFI Shelf R	ack v	vith Sliding	Doors	423. <mark>BB</mark> H	.0	FA			
06       603mm       15       1500mm       5       720mm (2OH)       1       between SINGLE / MULTI (W: -80mm)       6       ESD       1         08       800mm       16       1600mm       5       between ENERGY (W: -204mm)       6       ESD       1         09       900mm       18       1800mm       6       no Cutout (width = bench width)       1       E       1         10       1000mm       20       2000mm       1       E	BB	Width			н	Height	F	Extensions	Α	Version	
08       800mm       16       1600mm       5       between ENERGY (W: -204mm)         09       900mm       18       1800mm       6       no Cutout (width = bench width)         10       1000mm       20       2000mm       1       1	05	500mm	13	1295mm	4	380mm (10H)	0	with Cutout for SINGLE / MULTI	1	Standard	
09         900mm         18         1800mm         6         no Cutout (width = bench width)           10         1000mm         20         2000mm         4	06	603mm	15	1500mm	5	720mm (20H)	1	between SINGLE / MULTI (W: -80mm)	6	ESD 🥻	a
10 1000mm 20 2000mm	08	800mm	16	1600mm			5	between ENERGY (W: -204mm)			
	09	900mm	18	1800mm			6	no Cutout (width = bench width)			
	10	1000mm	20	2000mm							
<b>12</b> 1200mm <b>23</b> 2303mm	12	1200mm	23	2303mm							

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

K	Edge Length	Н	Height	Α	Versio	n
0	1213 x 1213mm	4	380mm (10H)	1	Standa	ırd
1	835 x 835mm	5	720mm (20H)	6	ESD	2
5	935 x 935mm					
2	1035 x 1035mm					





Shelf Rack with Sliding Doors and Corner 20H



- 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.
- Each compartment with height adjustable shelf board.
- Roller shutter, rolled up to the sides.
   Width < 1400mm: rolled up on left side.</li>
   Width > 1400mm: rolled up to left and right side.

hera

- Depth: 430mm.
- Je Regalfach ein höhenverstellbarer Zwischenboden.



Roller Shutter with Cutout for Extensions, W < 1400mm

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

BB	Width					Н	Height	F	Extensions
05	500mm	10	1000mm	16	1600mm	6	380mm (10H)	0	with Cutout for SINGLE / MULTI
06	603mm	12	1200mm	18	1800mm	7	720mm (20H)	1	between SINGLE / MULTI (W: -80mm)
08	800mm	13	1295mm	20	2000mm			5	between ENERGY (W: -204mm)
09	900mm	15	1500mm	23	2303mm			6	no Cutout (width = bench width)

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

K Edge Length

**H** Height

0	1213 x 1213mm	6 380mm (10H)
1	835 x 835mm	7 720mm (20H)
5	935 x 935mm	
2	1035 x 1035mm	



Shelf Rack with Roller Shutter 20H

www.hera.de | Technical details are subject to change. © 2023.09

Shelf Rack with Roller Shutter 10H



#### 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 R	ack with Tilted Front 423. BB A .00	PROFI Corner Shelf Raci	PROFI Corner Shelf Rack with Tilted Front 423.5 K A . 001					
BB Width	A Version	K Edge Length	A Version					
<b>08</b> 800mm	<b>15</b> 1500mm <b>0</b> Standard	0 1213 x 1213mm	0 Standard					
<b>09</b> 900mm	16 1600mm 1 ESD	1 835 x 835mm	1 ESD 🙇					
<b>10</b> 1000mm	<b>18</b> 1800mm	<b>2</b> 935 x 935mm						
<b>12</b> 1200mm	<b>20</b> 2000mm	<b>3</b> 1035 x 1035mm						
<b>13</b> 1295mm	<b>23</b> 2303mm							





#### 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

PR	OFI Bench Shield, Rear	417. <mark>M BB</mark> .	нн <mark>о</mark>								
N	Types	BE	B Width					нн	Height		
1	Transparent Rear Shield	05	<b>5</b> 500mm	10	1000mm	16	1600mm	03	300mm	07	700mm
2	Trannsparent Rear Shield, ESD	🙇 06	<b>6</b> 03mm	12	1200mm	18	1800mm	04	400mm	08	800mm
5	Melamine Covered Rear Shield	08	<b>8</b> 00mm	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



#### PROFI BENCH SHIELD, SIDE

Version 1: Benchtop 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 hardlaminate 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.

PRC	OFI Bench Shield, Side	417. <mark>M A</mark> 1	T.HHO						
М	Types		A Version	Т	Depth	HH	Height		
1	Transparent Side Shield		4 Benchtop Mounted	8	800mm	03	300mm	07	700mm
2	Transparent Side Shield, ESD	<u></u>	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







Especially in laboratories or workshops, where precion is part of the daily routine, it is very important to have perfect light conditions. No matter if natural, artifical or a combination of both, there must be always enough light, in a glarefree 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 parameter to suite your individual desires.



hera



#### **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 benchtop.

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 benchtop (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).



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

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

**M** Version

Add-On-Unit with Dimmer

IMOD Integration (controlled by IMOD) Control-Unit)

0

2

1 5

6

7

8

#### B Width (Lumen)

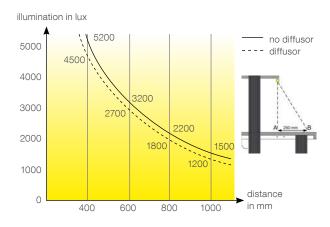
1	500mm (2.000lm)
2	800mm (4.000lm)
3	1100mm (6.000lm)
4	1400mm (8.000lm)
5	1700mm (10.000lm)
6	2000mm (12.000lm)



LED with Diffusor / LED without Diffusor

B 61. M 0 A		
Version	Α	Туре
Installation-Unit	1	no Diffusor
Attachment-Unit		for a maximum of illumination
Add-On-Unit	2	with Diffusor
Installation-Unit with Dimmer		for homogeneous illumination without shading
Attachment-Unit with Dimmer	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, 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 benchtop.

#### 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 benchtop (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:

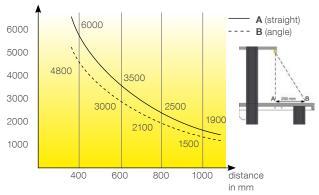
- Dimmable brightness 0...100%.
- Stepless adjustable color temperature between 2.700K (warm white) to 5.500K (cold white).
- 2-Channel microcontroller controlled PWM dimmer.

#### **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.



illumination in lux





IMOD Integration (completely controlled with MOD Control-Unit)



adjustable color temperature: cold white (5.500K)

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

#### **B** Width (Lume

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



neutral white



to warm white (2.700K)

en)	M Version	АТуре
3.000lm)	0 Installation-Unit	1 no Diffusor for a maximum of illumination
6.000lm)	2 Attachment-Unit	2 with Diffusor for homogeneous illumination
9.000lm)	1 Add-On-Unit	3 Waterproofed IP67, PU potted

8 IMOD Integration

3 Waterproofed IP67, PU potted



#### PROFI LED WORKSTATION LAMP WITH GOOSENECK

- The highly flexible gooseneck allows a precise positio-• ning 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 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 096 •
- Version PR see page 097



2-channel dimmer with stepless adjustable color temperature





Type with PROFI sleeve and PROFI swivel arm NOTE: swivel arm not included



Sliding adapter in multimedia support

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)

### М Туре

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



#### S Gooseneck

- 4 500mm
  - 5 800mm



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.

Daz	zle Protector		456.0 <mark>BB</mark> .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		



기민/문

#### 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



- 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

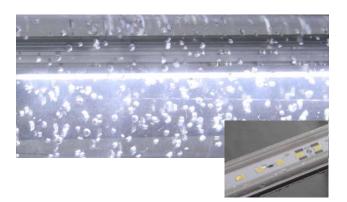
458.000.10



#### 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 potted 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 STANDARD AND DIMMABLE

#### STANDARD:

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

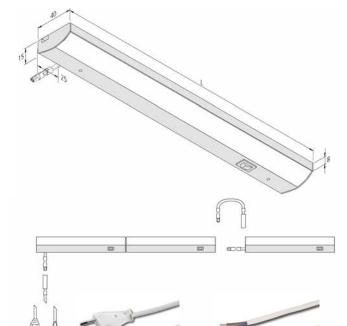
#### **DIMMABLE** (extra features):

- Adjustable color temperature: 2.700 5.000K.
- Integrated dynamic controller with memory function for light temperature and brightness).
- Optionally with remote control (not within scope of supply).



Universal LED Flatlight	STANDARD	DIMMABLE
Length: 450mm / 8W / 640lm	299.106.045	
Length: 600mm / 10W / 800lm	299.106.060	299.107.060
Length: 900mm / 15W / 1200lm	299.106.090	299.107.090
Length: 1200mm / 18W / 1440lm	299.106.120	299.107.120
Remote Control for Dimmable		299.107.000









# 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 fascilates 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 slided to the front while in use, and slided to the rear when not needed.

- Two linear rails made of anodized aluminium profile 40 x 300x20mm 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 Mec	hanics, 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 slided to the front while used and slided 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 Mec	hanics, Integrate	d
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. BB H .9 F O

BB Bench 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 Levels/ Height
Individual H-Profile
2x H-Profile / 360mm
3x H-Profile / 680mm
4x H-Profile / 1000mm

461.000.500

#### **F** Extensions

- 0 between SINGLE / MULTI
- **3** Sliding Mechanics, Standard
- 4 Sliding Mechanics,
- 5 between ENERGY

#### **O** H-Profile

0 aluminium anodized

hera

2 powder coated

#### Slot Adapter for Training Systems

- Slot adapter, if an Aluboard should be used as part of Training System Frame
- White 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.

Instal	lation Wall,	chable	46	61. BB E .10	R	
BB	Width	E	Levels	evels R Raster		
06	600mm	1	1 Level	3	hera-Raste	r 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. <mark>BB E</mark> .800			
BB Width	E Levels			
<b>08</b> 800mm	2 2 Levels (H: 680mm)			
<b>12</b> 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

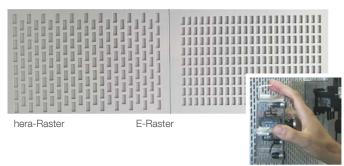
461.001.100	1 Level with 2 Locking Pins
461.001.200	2 Levels with 4 Locking Pins





#### **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.



Installation Walls, firmly mounted			461.BB H .1 F R								
BB	Nidth					H	Height	F	Extensions	R	Raster
05	500mm	10	1000mm	16	1600mm	1	360mm	0	between SINGLE / MULTI	0	hera-Raster
06	603mm	12	1200mm	18	1800mm	2	680mm	3	for Sliding Mechanics, Standard	1	E-Raster
08	800mm	13	1295mm	20	2000mm	3	1000mm	4	for Sliding Mechanics, Integrated		
09	900mm	15	1500mm	23	2303mm			5	between ENERGY		

#### 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	e Tray for <sup>·</sup>	Traini	ng System	Fram	ie 461. <mark>BB</mark>	5.90	2
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 (interconnected).
- Durable light grey powder coated.
- Dimensions: 50 x 90mm (DxH).

Distri	ibution Pa	nel fo	r Training S	Syste	m Frame	461. <mark>B</mark>	B 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.

#### **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.

301.150.10

Installation Dowels (100pcs)



• Tilted hoods made of light grey plastics. Depth: 90/50mm; height: 270mm.









## 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.



PROFI Overhead Fra	me 450. <mark>BB T</mark>	450. <mark>BB T . A</mark> 00					
BB Width			T Depth	АТуре			
<b>09</b> 900mm	<b>13</b> 1295mm	<b>18</b> 1800mm	<b>0</b> 500mm (for bench depth 800)	0 SD for SINGLE / MULTI			
<b>10</b> 1000mm	<b>15</b> 1500mm	<b>20</b> 2000mm	1 600mm (for bench depth 900)	1 SD for ENERGY			
<b>12</b> 1200mm	<b>16</b> 1600mm	<b>23</b> 2303mm	2 700mm (for bench depth 1000)	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						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.



PRC	DFI Multifunctional LED Lamp	458	3.0 <mark>E</mark>	B. A 01
BB	Width		Α	Туре
05	500mm (13W / 1575lm)		0	Standard
09	900mm (25W / 3150lm)		1	Dimmable
12	1200mm (34W / 4410lm)			
15	1500mm (39W / 5040lm)			





#### TOOL SLIDE WITH SNAP HOOK FOR OVERHEAD FRAME

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

Tool Slide with Snap Hook

9.100.100





#### 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 Balance		
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 quick fastener NW7,2.

Pressured Air Unit with Filter

459.200.100



## SPIRAL HOSE QUICK CONNECTOR

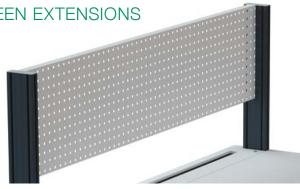
- Polyurethan spiral hose with connector and coupler • NW7,2 for medium temperature -20°C to +60°C.
- Diameter: approx. 50mm. •
- Service length: 4m.
- Operating pressure: max. 10 bar.

Spiral Hose Quick Connector



#### 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.

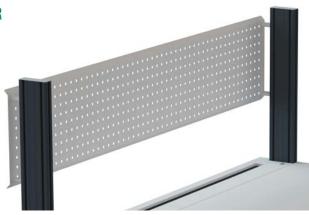


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PROFI Perforated Backplane between Profiles					460.	BB H .9 F 1						
	BB	Nidth							H	leight	F	Extensions
	05	500mm	09	900mm	13	1295mm	18	1800mm	0	150mm	(	0 SINGLE / MULTI
	06	603mm	10	1000mm	15	1500mm	20	2000mm	5	350mm	Ę	5 ENERGY
	08	800mm	12	1200mm	16	1600mm	23	2303mm				

#### 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 Ba	ackplane, rear	460.	460. <mark>вв н</mark> .902						
BB	Width						НH	eight		
08	800mm	<b>10</b> 1000mm	<b>13</b> 129	95mm <b>16</b>	1600mm <b>20</b>	<b>0</b> 2000mm	0	150mm		
09	900mm	<b>12</b> 1200mm	<b>15</b> 150	00mm <b>18</b>	1800mm 23	<b>3</b> 2303mm	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 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





PROFI Swivel Arm

PROFI Sleeve







## 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 Backp	plane 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 coductive powder coating in light grey.

#### 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



491.028.101 TFT Support



491.028.111 TFT Support with Keyboard Tray

491.028.121 TFT Support with Keyboard Tray and Mouse Pad





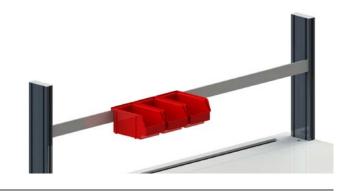
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#### **PROFI BIN BAR** FOR STORAGE BINS

- 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



PR	PROFI Bin Bar for Storage Bins		Bins 46	462.BB 0. 0 F 0									
В	B Width										F	Extensions	
	800mm	<b>10</b> 100	0mm	13	1295mm	16	1600mm	20	2000mm		0	SINGLE / MULTI	
	900mm	<b>12</b> 120	0mm	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"			Industry"	463. <mark>BB</mark> 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 tranparent 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 Hold	er
468.200.102	1x Bottle, Width 114mm
468.200.202	2x Bottles, Width 210mm



IN



#### 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.

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:	Switch Integrated i	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			
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

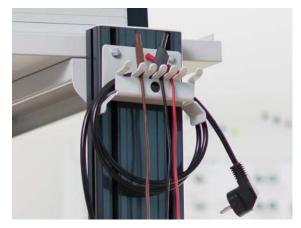
- Cable support with bow and integrated cable comb made of 3mm thick aluminium sheet.
- Cable comb suitable for lab cords, power cords, etc.
- Durable conductive powder coating in light grey.
- Only with bow for cables or with cable comb for lab cords, power cables etc.
- Dimensions: 148 x 100mm (WxH).

#### **PROFI Cable Support**

299.221.501 with C 299.221.551 no Cal

with Cable Comb (depth: 66mm) no Cable Comb (depth: 40mm)





#### 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.





#### CHAPTER 4: EASY WORKSTATION SYSTEM

- **118** Workbench in Standard and ESD
- 120 Trapezium Bench and Lifting Caster
- **121** Bench Stiffener, Bench with Casters, PC Support
- 122 Cable Tray and Cable Insert
- 124 Corner Solution for EASY Benches
- 125 Bench Connector
- 126 Floor Fixation, H-Leg for Mechanical Workshop
- **127** Benchtop for Laboratory and Workshops
- 129 Mechanical Workshop Bench
- **<u>131</u>** Height Adjustable EASY Benches

- 132 EMV Bench
- **<u>134</u>** Benchtop Frame
- 135 Shelving Rack
- 136 Shelf Rack
- **138** EASY Support for Training System Frame
- 139 Training System Frame and Installation Wall
- **140** Installation Wall and Wooden Installation Panels
- 141 Installation Cabin
- 142 TFT Chest



#### **EASY WORKBENCH STANDARD AND ESD**



- Total height: 780mm. .
- Highly stable bench frame made of durable powder coated tubular steel 40 x 40mm.
- Lightgrey, durable, 30mm thick benchtop (multilayer chipboard accoriding to DIN EN ISO 13894-1). Upper side with 0,8mm thick hardlaminate 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 benchtop (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 benchtop



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



#### EASY Workbench 1 TT. BBB.90 A

TT Depth			BBB W	BBB Width			АТуре	
Stand	ard	ESD		060	600mm	148	1485mm	0 Standard
06	600mm	37	600mm	080	800mm	150	1500mm	5 with Middle Brace
10	800mm	07	800mm	090	900mm	160	1600mm	
11	900mm	27	900mm	100	1000mm	180	1800mm	
12	1000mm	17	1000mm	120	1200mm	200	2000mm	
				126	1260mm	230	2303mm	
				129	1295mm			

# Accessory ESD299.890.110Wrist Band with Spiral Cord299.890.120Wrist Band299.890.130Spiral Cord299.890.520Connection Box with 2x Press Studs 10,3



#### OPTION THREAD INSERTS FOR SUSPENDED CONTAINER

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

Option Threa	ad 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 seperately 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 Bend	h 1 TT . BBB	.950				
TT W	/idth	BBB	BBB Depth				
06	600mm	126	1260mm				
10	800mm	130	1295mm				
11	900mm	148	1485mm				
12	1000mm	150	1500mm				
		160	1600mm				
		180	1800mm				
		200	2000mm				



#### **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	6	600mm			
08	800mm	14	1485mm	8	800mm			
09	900mm	15	1500mm	9	900mm			
10	1000mm	16	1600mm	1	1000mm			
12	1200mm	18	1800mm					





#### 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.

EAS	Y H-Stiffener		91 . <mark>BB T</mark> .950		
BB	Width			Т	Depth
06	600mm	14	1485mm	6	600mm
08	800mm	15	1500mm	8	800mm
09	900mm	16	1600mm	9	900mm
10	1000mm	18	1800mm	1	1000mm
12	1200mm	20	2000mm		
13	1260mm	23	2303mm		



#### 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.

EAS	EASY Bench, Mobil 191 . 07 A .9 R 0						
A Version				Caster Diameter			
1	Standard		0	100mm			
2	ESD		1	75mm			
			2	125mm			





75mm Standard

with Brake

#### 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

191.080.90



#### CABLE TRAY FOR EASY BENCH

• Made of sheet steel, for the fixation between the rear bench legs in variable height.



#### **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	

#### **CABLE INSERT**, ROUND

- Plastic outer ring with rotatable spring flap.
- Incl. cutout in benchtop.

#### Cable Insert, round (inner - / outer diamete

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

## CABLE ACCESS ELEMENT, **RECTANGULAR**

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

Cable Access Element, rectangular					
293.930.310	120 x 120mm				
293.930.320	240 x 120mm				
419.063.100	276 x 80mm				

• Steel parts with durable powder coating.



## А Туре

- 1 Suspended Cable Tray
- Cable Tray with Brush Strip (60mm rear overhang)
- The spring flap can be removed for leading through the plugs.



#### Please state the position!





#### FLEX SOCKET STRIP

- The socket strip can be placed or fixed into the cable tray of the EASY bench.
- Technical data and design of international standard vary. Other country standards on demand.



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

A Sockets	S	SS	Switch	Z	Cable		F Color
<b>3</b> 3 Sc	ockets Type F	0	with Switch	0	no Cable	(	<b>)</b> white
<b>4</b> 4 Sc	ockets Type F	1	no Switch	1	1,5m Cable		l black
6 6 Sc	ockets Type F			3	3m Cable	2	2 red
293.600.000 Fixing Set for PROFI Profile		ofile für	FLEX Socket Strip	5	5m Cable		
293.600.010 Connected to the Main		s Panel					
293.600.030 Option Socket Strip fixe		ed in Ca	able Tray				
293.642.100	4x Sockets Type G (Brit	ish Sta	ndard)		293.660.980	6x Socket	s 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 3G1,50mm<sup>2</sup>, 2m with angled plug Type F.
- Dimensions: 70 x 45mm (WxH).



## 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)	

## **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 stip.
- Stable clamp connection for 18 30mm thick benchtops.
- 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.



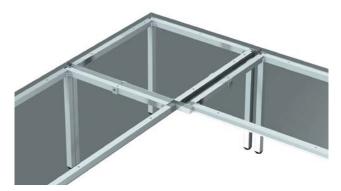
Mounting Kit L-Combination

191.027.900

#### 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 Combi. with Corner Bench 191.028.900



#### 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 benchtop with 3mm PP plastic edge, tailored front egde 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.







- 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 benchtop wth PP plastic edge and connecting plates to the adjoining benches.
- Front edge: 500mm, side length: 350mm.

Triangle Element for EASY Corner Combinations					
Standard	191.029.500				
esd 📩	191.030.500				



## 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.

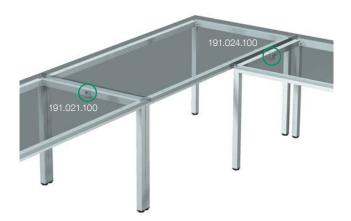
EASY Bench Leg for Leg-Free Bench Rows				
Standard	191.022.900			
ESD 🔼	191.023.900			



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## 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

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 benchtop elements.
- Height: 750mm (for standard bench height: 780mm).

EASY Bench Leg with Mounting Plate 123.000.900

#### 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 standard bench height of 780mm).

EASY H-Leg for Mechanical Wrokbench			
123.020.700	Depht: 620mm		
123.010.700	Depht: 750mm		





#### DIRECTLY COVERED BENCHTOPS

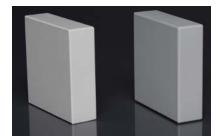
- Melamine resin covered 3-layer chipboard.
- All sides with durable PP plastic edge.
- Customized dimensions.

#### **ESD Version:**

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



Dire	ectly Covered Be	nchto	ps 10 <mark>A</mark> .	10 A .0 ST . F 00		
Α	Version	ST	Thickness	F	Color	
1	Standard	08	8mm	5	light grey	
8	esd 📩	19	19mm	8	white	
		25	25mm	9	beech / maple	
		00	28mm		(not in ESD)	





## HARDLAMINATED BENCHTOPS

- 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.

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

#### ESD Version:

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





#### MECHANICAL WORKTOPS

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

Mechanical Worktops 10 A .0 ST .000

А Туре	ST Thickness
4 Multiplex	20 20mm (only multiplex)
5 Solid Timber	<b>30</b> 30mm
	<b>40</b> 40mm
	50 50mm (only solid timber)



solid timber

multiplex



#### BENCHTOPS WITH BEVELLED FRONT EDGES

- Hardlaminated light grey benchtops with bevelled • front edge (70mm drop edge covering the frame) or PROFItec 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 EN61340-5-1.

Benchtops with Bevelled Fron	t Edges 10 <mark>A</mark> .0 <mark>V</mark> 0.500
АТуре	V Version
0 Standard	1 PROFItec
7 ESD 🚣	2 P26 Edge
	4 70mm drop edge



SPECIAL TOPS

- Benchtop 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 benchtop (extremely hardwearing plate with solid • hard core in black and light grey surface. Optional with expoxy bulged rim 20/27mm.
- Stainless steel top with V100 chipboard and optional with • bulged rim.

#### Special Tops 103.000.000 Benchtop with Linoleum Surface 103,100,000 Benchtop 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 Benchtop, no Bulged Rim 106.100.000 Trespa Benchtop, with Bulged Rim 108.000.000 Stainless Steel Top, no Sink 108.100.000 Stainless Steel Top, with Sink



with Linoleum Surface

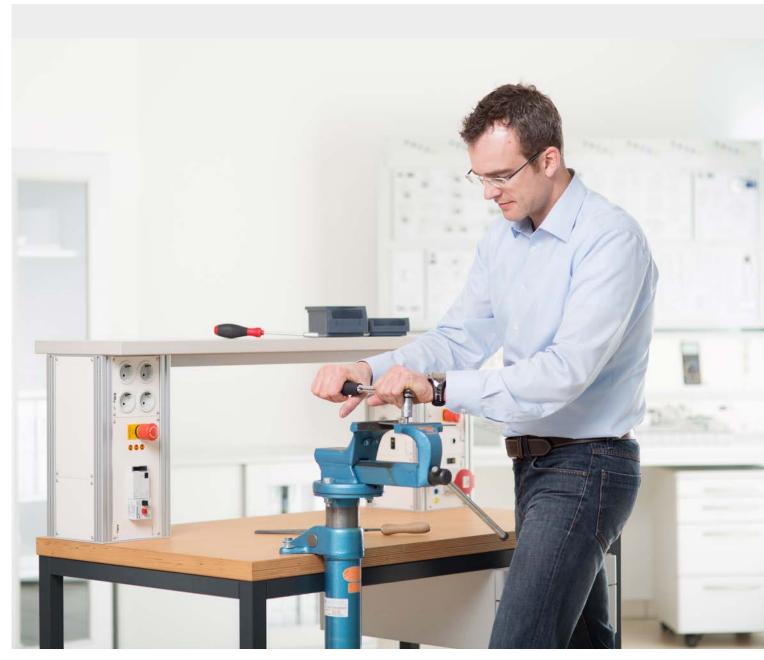
Trespa with Bulged Rim

Ceramic Tiles with Bulged Rim



## THE MECHANICAL WORKBENCH **DEFYS ANY IMPACT**

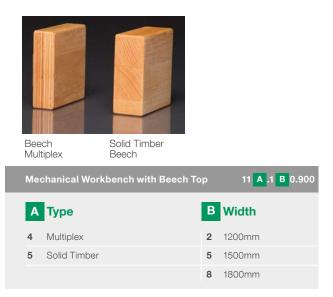
The surrounding tubular steel frame with extra H-stiffener offers extraordinary stability even for rough mechanical works. The workbench can be equipped with vise, sheet steel container and many accessory to make sure you have everything in perfect reach.





#### 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 benchtop. Multiple oiled or laquered.
- Height: 790mm, depth: 700mm.





#### 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 Me	chanical 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





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



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Mechanical Height Adjustment

191.092.90

#### 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 EMC BENCH

- Benches for electromagnetic compatibility.
- Benchtop made of beech multiplex, oiled, 40mm thick with camfered edges.
- Bench frame made of solid oiled and sanded beech wood.
- Optional with benchtop 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 Benc	EASY EMC Bench 1 TT. BB1. A V F								
TT Depth	BB Width	A Surface	V Stiffener	F Casters					
<b>10</b> 800mm	12 1200mm 18 1800mm	0 Wood 3 Aluminium	0 no Stiffener	0 none					
<b>11</b> 900mm	<b>16</b> 1600mm <b>20</b> 2000mm	1 galvan. Steel 4 Stainless Steel	5 with Stiffener	5 mobile					
<b>12</b> 1000mm		2 Copper							





## **RELIABLE STABILITY** WITH EASY BENCHTOP MOUNTINGS

The EASY benchtop 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 BENCHTOP 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	EASY Benchtop Frame 198. BBB.900							
BBB	Width							
080	800mm	126	1260mm	180	1800mm			
090	900mm	148	1485mm	200	2000mm			
100	1000mm	153	1500mm					
120	1200mm	160	1600mm					



#### EASY BENCHTOP 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).

EA	SY	Benchtop I	-rame, hei	ight adjust	able 19	8.	<mark>звв</mark> .900	
BE	BB	Width						
08	32	800mm	128	1260mm	18	82	1800mm	
09	92	900mm	150	1485mm	2	02	2000mm	
10	)2	1000mm	152	1500mm				
12	22	1200mm	162	1600mm				



## EASY BENCHTOP 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	Benchtop	Frame	198.	BBB .900		
BBB	Width					
081	800mm	127	1260mm	18	<b>1</b> 1800mm	
091	900mm	149	1485mm	20	<b>1</b> 2000mm	
101	1000mm	151	1500mm			
121	1200mm	161	1600mm			





#### SHELF FOR EASY BENCHTOP 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 Benchtop Frame			199. <mark>BBB</mark> .500							
BB	B Standar	d		BBB	ESD 📩					
080	800mm	148	1485mm	081	800mm	149	1485mm			
090	900mm	150	1500mm	091	900mm	151	1500mm			
100	1000mm	160	1600mm	101	1000mm	161	1600mm			
120	1200mm	180	1800mm	121	1200mm	181	1800mm			
126	1260mm	200	2000mm	127	1260mm	201	2000mm			

## 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 benchtop. 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 Rac	K			
Width		Cantilevers		Stop Edge
		for Shelf	Standard	ESD
800mm	198.080.505	198.080.510	199.080.510	199.081.510 📩
1000mm	198.100.505	198.100.510	199.100.510	199.101.510
1260mm	198.126.505	198.126.510	199.126.510	199.127.510
1485mm	198.148.505	198.148.510	199.148.510	199.149.510
1600mm	198.160.505	198.160.510	199.160.510	199.161.510
1800mm	198.180.505	198.180.510	199.180.510	199.181.510
2000mm	198.200.505	198.200.510	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.500						
BBB	Width					
080	800mm	120	1200mm	160	1600mm	
090	900mm	126	1260mm	180	1800mm	
100	1000mm	148	1485mm	200	2000mm	



## 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 v	215. <mark>BBB</mark>	.500			
BBB	Width					
081	800mm	121	1200mm	161	1600mm	
091	900mm	127	1260mm	181	1800mm	
101	1000mm	149	1485mm	201	2000mm	



#### EASY SHELF RACK WITH LAMP

- Tilted front for the assembly to a LS2000 instrument rack or benchtop 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 LED lamp and switch.







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.



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#### EASY SUPPORT FOR TRAINING SYSTEM FRAME, TILTED

- Benchtop 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 seperately!).
- 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 romoved from the benchtop.
- Prepared for training system frame or installation wall (not included, please choose seperately!).
- 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: 1	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 seperately!).
- 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.
- Suibable 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

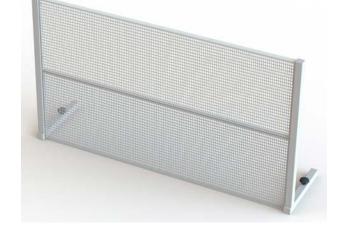


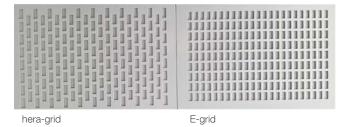


BB	Width							Н	Height	0	H-Profile
05	500mm	09	900mm	13	1295mm	18	1800mm	1	360mm	0	aluminium anodized
06	603mm	10	1000mm	15	1500mm	20	2000mm	2	680mm	2	powder coated
08	800mm	12	1200mm	16	1600mm	23	2303mm	3	1000mm		

## **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).





Installation Walls, firmly mounted					461.BB H .10 R						
BB	Width							н	Height	R	
05	500mm	09	900mm	13	1295mm	18	1800mm	1	360mm	0	hera-Raster
06	603mm	10	1000mm	15	1500mm	20	2000mm	2	680mm	1	E-Raster
08	800mm	12	1200mm	16	1600mm	23	2303mm	3	1000mm		



#### **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 Fame 461. BB E .10 R									
BB	Width	Е	Level	R	Grid				
06	600mm	1	1 Level	3	hera Gric	l 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. <mark>BB</mark> E.800				
BB Width	E Level				
<b>08</b> 800mm	2 2 levels (H: 680mm)				
<b>12</b> 1200mm	3 3 levels (H: 1000mm)				



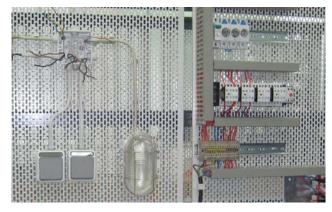
#### **INSTALLATION DOWEL** FOR INSTALLATION WALL

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



Set of Installation Dowels

301.150.100





#### INSTALLATION CABIN

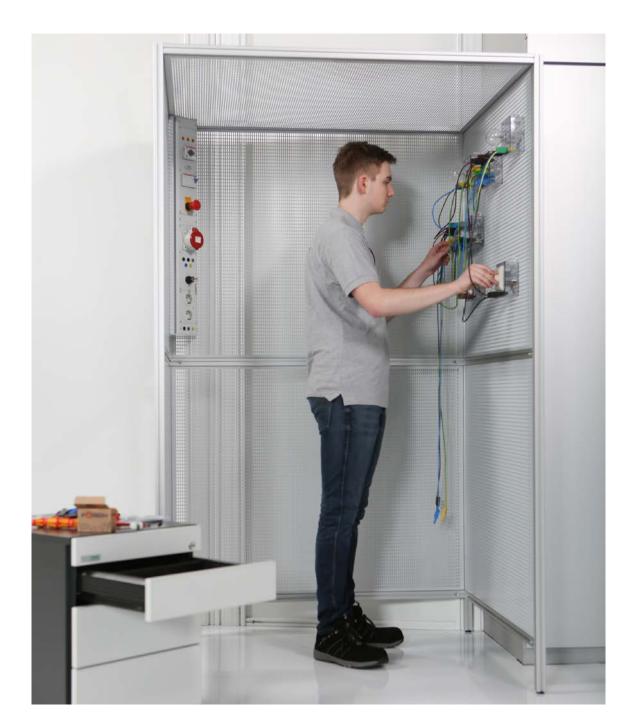
- The installation cabin offers a most realistic training environment for domestic or industrial installations.
- The frame is made of anodized aluminium profile with incorporated installation walls. The cabin is ready to accomodate a modular equipped media channel.
- Durable, light grey powder coating.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

#### Other dimensions on demand!



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

- **144** Base for Height Adjustable Workshop Bench
- **146** Base for C-Lift Workshop Bench
- 147 Option Mobile Workshop Bench
- 149 Base for EASY Workbench
- 150 Benchtops
- 151 Foot Rest
- 152 PC Support and Bench Enlargement
- 153 FLEX Upright Sections
- 154 Backplane for Socket Strip
- 155 Shelf and Swivel Shelf
- 156 FIFO Swivel Shelf and Functional Shelf

- 158 FIFO Shelf
- 160 Perforated Backplane
- 161 Bin Bar
- 162 Overhead Frame
- 163 Overhead Lamp LED and Multifunctional LED Lamp
- 164 Swivel Arm
- 166 Bottle Holder, Tool Holder and Turntable
- 168 Transfer System
- 169 Heavy Duty Roller and Roller Strip
- 170 Stopper and Ball Roller



## **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.BBT.00 V				
BB Width		T Depth	V Version		
<b>08</b> 800mm <b>12</b> 1200mm	<b>16</b> 1600mm	<b>6</b> 600mm	0 manual height adjustment		
<b>09</b> 900mm <b>13</b> 1295mm	<b>18</b> 1800mm	<b>7</b> 700mm	5 for hydraulic height adjustment		
<b>10</b> 1000mm <b>15</b> 1500mm	<b>20</b> 2000mm	<b>8</b> 800mm			

#### 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	•	11	116. <mark>BB</mark> 0.010			
BB	Width						
08	800mm	12	1200mm	16	1600mm		
09	900mm	13	1295mm	18	1800mm		
10	1000mm	15	1500mm	20	2000mm		





- 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. <mark>BB</mark> 0.	050
BB	Width					
08	800mm	12	1200mm	16	1600mm	
09	900mm	13	1295mm	18	1800mm	
10	1000mm	15	1500mm	20	2000mm	



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# **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.

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



- Central 2-chamber hydraulic pump for synchron operaton, installed under the benchtop.
- 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 benchtop.





#### **OPTION C-LIFT BASE** FOR FLEX BENCH

- Height adjustable between 700 1150mm (stroke: 450mm), from floor to upper side of bench frame (without benchtop).
- 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 benchtop with invisible calbe 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 benchtop seperately!

Option C-Lift Base for FLEX Bench



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



**410.001.910:** Drag chain between cable tray and bottom

1 TT. BBB.720







#### 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).

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

Stroke: 350mm / 2x 800N / 18mm/s

Stroke: 350mm / 2x 2000N / 9mm/s

Stroke: 350mm / 2x 2000N / 18mm/s

Lift Shells without Lifting Mechanism

• Load capacity: max. 300kg.

410.003.16E

410.003.32E

410.003.33E

410.003.00E

• Bench height: 730mm - 1080mm.

	4
-	0

#### **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.

**Option Casters for FLEX Workshop Bench** 

Standard

ESD

Load capacity: max. 300kg.

191.070.000

191.070.500

77 7777 7	
2000	
	· / A

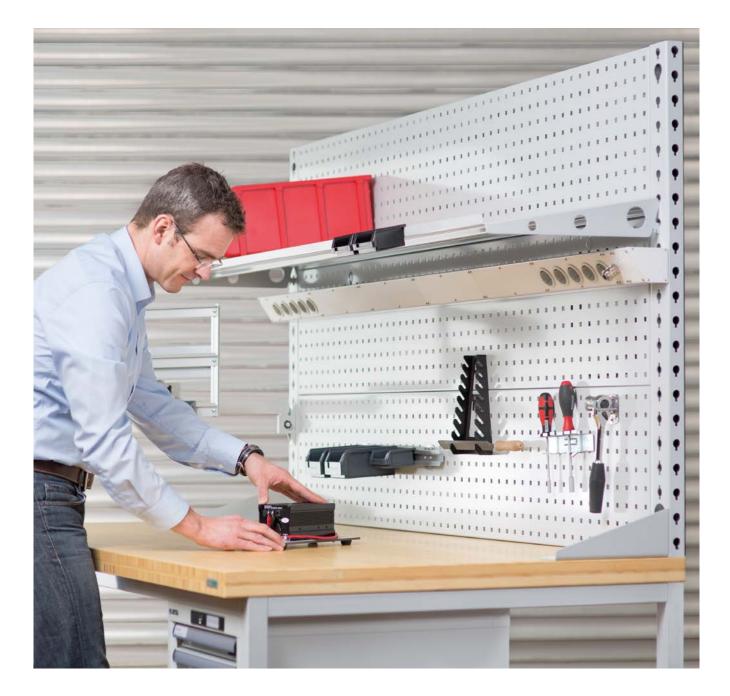






# THE COMBINATION OF **EASY AND FLEX**

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

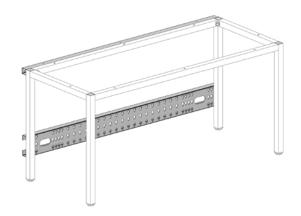
- Solid 4-leg base, height: 750mm.
- Closed bench frame made of 40 x 40mm tubular steel.
- Four bench legs made of 40 x 40mm tubular steel with floor leveling screws and torsion-resistant corner joints.
- All steel parts with durable conductive powder coating in light grey.



Base for EASY Bench 1 TT . BBB .520								
TT Depth BBB Width								
06	550mm	060	600mm	126	1260 mm	160	1600mm	
10	750mm	080	800mm	129	1295mm	180	1800mm	
11	850mm	090	900mm	148	1485mm	200	2000mm	
12	950mm	100	1000mm	150	1500mm	230	2303mm	
		120	1200mm					

# FLEX CROSS BRACE FOR EASY BENCH

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 BENCHTOPS

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

Melamine Resin C	10	A .0 <mark>ST .</mark> F 00		
A Version	ST T	hick	F	Color
1 Standard	08	8mm	5	light grey
8 ESD 🛵	19	19mm	8	white
	25	25mm	9	maple / beech
	00	28mm		(not in ESD)

#### ESD Version:

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





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 hardlaminate 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 A 8 white 9 maple / beech (not in ESD)

#### **MECHANICAL** BENCHTOPS

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

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

#### **ESD Version:**

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





ESD

directly covered



#### BENCHTOPS WITH BEVELLED FRONT EDGE

- Hardlaminated benchtops with bevelled front edges or ۰ 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.

Be	nch Tops with Bevelled Front E	dge	10 <mark>A</mark> .0 <mark>V</mark> 0.500
Α	Version	۷	Front
0	Standard	1	PROFItec
7	esd 📩	2	P26 Edge
		4	70mm Drop Edge



•

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



Technical details are subject to change. © 2023.09 | www.hera.de



#### FLEX FOOTREST

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

FLE	X Footrest	116.3 B T	.00	0
В	Width		Т	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
<b>116.405.000</b> W: 500mm	<b>116.407.000</b> 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

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.
- Benchtop not included.
- Width: 300mm.

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Bench Enlargement, foldable and telescopic

• see page 150 for suitable benchtops











#### 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 benchtop + 650mm

for benchtop assembly in L-form:

• with solid angled backets, 300mm reach

FLEX Upright Sections for Cross Brace 140.0 HH.000									
HH Height above benchtop									
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-F	orm	140.	0 <mark>HH</mark> .500		
HH Height above benchtop						
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					

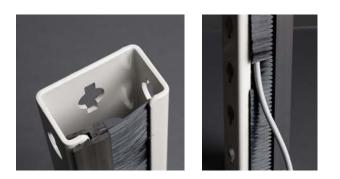




#### BRUSH STRIP (PAIR)

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

Brush	Strip (Pair)		140	).0 <mark>HH</mark> .100		
HH Height above benchtop						
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.00								
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"	, Туре 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		



- 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	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										



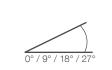


#### FLEX SWIVEL SHELF

- 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.

FLE	X Swivel Shell	i	140.2 <mark>BB</mark> .0 T 0			
BB	Width			Т	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					











λΛ



#### 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 <mark>BB</mark> .5 T	0	
	BB	Width			Т	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 Gu	ide	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 seperators.
- 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.

	FLE>	K Function	al She	elf 140	.3 <mark>B</mark> I	B.ET0		
	BB	Width			Е	Version	Т	Depth
	05	360mm	13	1155mm	4	Standard	3	300mm
	06	460mm	15	1360mm	5	esd <u></u>	4	400mm
	08	660mm	16	1460mm			5	500mm
	09	760mm	18	1660mm			6	600mm
	10	860mm	20	1860mm				
	12	1060mm						
1	Acce	essory for I	ELEX	Functional S	Sheli	ī		
	140.3	3 <b>BB</b> .900	(	Option Front E	dge	Aluminium Pi	rofile	)
	140.3	301.0 <b>T</b> 0	S	Seperator for A	Alum	inium 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

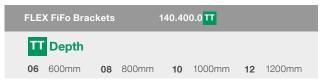
The modular FLEX FiFo Bin Feeding System consists of following components:

- 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. <mark>HH</mark> 0										
HH Height above benchtop										
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 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 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							
BE	<sup>3</sup> Width						
09	760mm	12	1060mm	15	1360mm	18	1660mm
10	860mm	13	1155mm	16	1460mm	20	1860mm



#### FLEX FIFO EDGE GUIDE

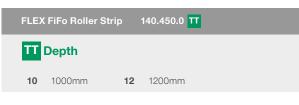
- Part of the modular bin feeding system.
- Two edge guides (right/ left) for the assembly to the FiFo connecting braces.
- Made of sheet steel, durable conductive powder coated in light grey.

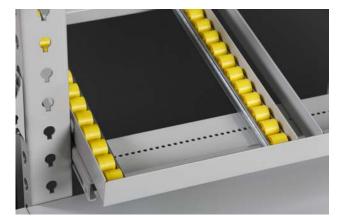
FLEX	FiFo Edge Gu	iide	140.460.0 <mark>TT</mark>		
TT I	Depth				
06	600mm	10	1000mm	12	1200mm



# 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.







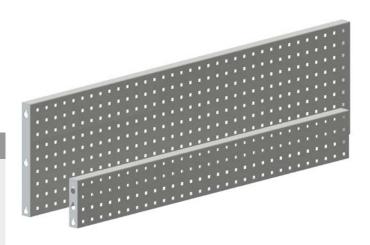




#### FLEX PERFORATED BACKPLANE

- 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 <mark>BB</mark> .0 T 0					
BB	Width			Т	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				

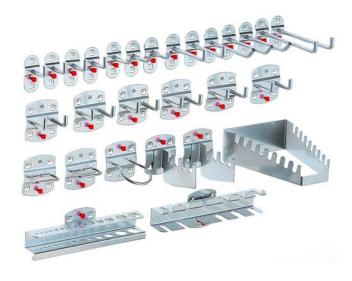




#### TOOL HOLDERS FOR PERFORATED BACKPLANE

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

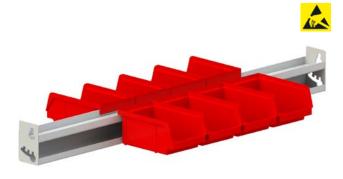
Tool Holders for Perforated Backplane					
469.900.010	12pcs.				
469.900.020	18pcs.				
469.900.030	28pcs.				
469.900.040	40pcs.				
469.900.040	40pcs.				





#### 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 <mark>BB</mark> .00	0		
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.













#### 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.







#### 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

59.100.100

# 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.

#### FLEX Overhead Lamp 140.8 BB.050

#### **BB** Bench Width

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

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).





#### MULTIFUNCTIONAL LAMP LED

- Ergonomic LED lamp made of anodized aluminium.
- Height: 65mm; depth: 45mm.
- Homogeneous and shadefree illumination of the work space due to micro-prism technology.
- Color reproduction: 5.500K (Ra: >85).
- Illumination angle: 100°.
- Optionally with flickerfree 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 <mark>BB</mark> . <mark>A</mark> 01		
BB Lamp Housing	АТуре	120V Types (5.000)	()
<b>05</b> 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 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

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

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 SWIVEL ARM

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

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 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



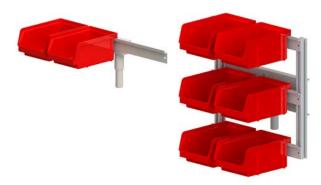


PROFI Swivel Arm

PROFI Sleeve









#### 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 PRO	FI 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

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).
- Tiltable 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.

Notebook - and Keyboard Support for PROFI Swivel Arm

491.028.320	Notebook Support
491.028.330	Keyboard Support



491.028.320 Notebook 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).

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 0 T										
A Version	D Diameter	Туре								
0 Standard	<b>3</b> 380mm	0 no Position Lock								
5 ESD 📩	<b>5</b> 500mm	5 with Position Lock								

#### 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



#### ESD Version:

• Conductive rubber surface and earthing cable.

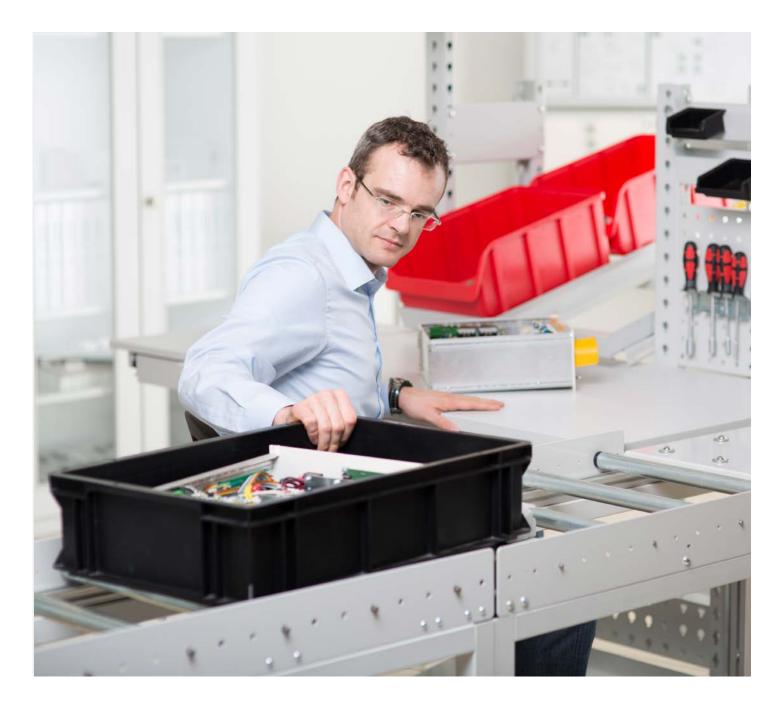






# KEEP THINGS **MOVING!**

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.

F	LE	X Transfei	Base	116. LL B .5	00	
LL Length					BW	/idth
(	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.

Trans	sfer Line Side	Parts	116. <mark>LL</mark> 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.

Trans	sfer Line Stop	-End	116.00 <mark>B</mark> .	500	
В	Width				
4	400mm	6	600mm	8	800mm
5	500mm	7	700mm		



# CYLINDRIC HEAVY DUTY ROLLER

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

Cy	lindric Hea	avy	Duty Rolle	r	r 102.00 <mark>B.M</mark> 00					
В	Width			Μ	Material					
4	400mm	7	700mm	2	anodized steel	4	aluminium			
5	500mm	8	800mm	3	stainless steel	5	plastics			
6	600mm									



#### **ROLLER** STRIP

- Rollers made of high quality thermoplastic polyurethane.
- Optional with wheel flange.
- Easy roller replacement.
- U-guidance made of anodized sheet steel.

102.LL 0. S RR

- Roller diameter: 30mm.
- Wheel flange diameter: 44mm.
- Roller width: 25mm.
- Total height: 40mm.
- Load capacity: 12kg.



ш	Length			S	Wheel Flange	F	RF	Roller Distance
06	600mm	12	1200mm	0	no wheel flange	(	03	33mm (only without wheel flange)
08	800mm	14	1400mm	5	with wheel flange	(	05	50mm
10	1000mm						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										
В	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			В	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 loadbearing 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

- 172 PROFI Cart
- 176 Base for PROFI Mobile
- 177 Shelf for PROFI Mobile
- 179 Base for PROFI Mobile ENERGY
- **181** Shelf for PROFI Mobile ENERGY
- 182 Short Container for PROFI Mobile
- 183 19" Rack and Brush Channel
- 184 Keyboard and Notebook Drawer
- 185 Handle and Cable Support
- **186** Support for Cable Dispenser
- **188** Training System Frame and Cable Comb

- 189 PROFI Mobile Cord Holder
- **190** Top Shelf, Shelf Box and Mobile Cord Holder LC
- 192 EASY Cart
- **193** EASY Storage Cart
- 194 EASY Mobile Cord Holder
- **<u>196</u>** Mobile Cabinet, Storage Cart for Training Systems
- 198 Base for FLEX Mobile
- 199 Shelf for FLEX Mobile
- 200 Accessory for FLEX



#### 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.

PRO	OFI Cart	44	.11	B.9V1		
Т	Depth		В	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	PROFItec Edge
ES	D	🚵				
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	<b>Heavy Duty</b> Ø 100mm	<b>Heavy Duty</b> Ø 125mm	<b>Design</b> 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 185







#### 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	<b>1</b> 420 for 500mm			
<b>1</b> 730 for 900mm	5 730 for 900mm	2 523 for 603mm			
2 830 for 1000mm	6 830 for 1000mm	<b>3</b> 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-keysystem) and 2 keys.

#### ESD Version:

to DIN EN 61340.



• Conductive organizable sheet steel drawer with conductive wooden front.

Volume and surface conductive body according

#### Design Type:

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







# 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.

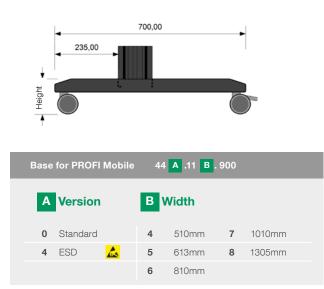


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### **BASE** FOR PROFI MOBILE

- 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.











Standard 75mm max. 150kg height: 132mm

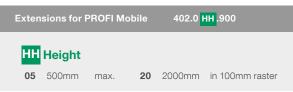
Heavy Duty 100/125mm max. 300kg height: 185/212mm

Design 100mm max. 300kg height: 168mm

Caster Options	<b>Heavy Duty</b> Ø 100mm	<b>Heavy Duty</b> Ø 125mm	<b>Design</b> 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.



# BASE SHELF FOR PROFI MOBILE

- Light grey 28mm thick melamine resin covered chipboard 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						Depth
			ESD	<u></u>		
	05	420mm	55	420mm	5	500mm
	06	523mm	56	523mm	6	600mm
	80	720mm	58	720mm	7	700mm
	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. <mark>BB</mark> T.001		
BB	Width			Т	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 manigfold (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 **MODULARILY 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 cabeling is in the extensions.



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#### **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

4

5

6

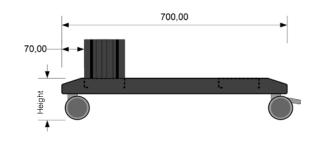
**B** Width

500mm

603mm

800mm







**A** Version

0

4

Standard

ESD





1000mm

1295mm

7

8

Standard 75mm max. 150kg height: 132mm

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

Design 100mm max. 300kg height: 168mm

Caster Options		Heavy DutyHeavy DutyØ 100mmØ 125mm		<b>Design</b> 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



- Light grey, 28mm thick melamine resin covered chipboard, 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	т	Depth	A	Versi	on
05	500mm	4	400mm	1	Standa	rd
06	603mm	5	500mm	2	ESD	<u></u>
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			Т	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 chipboard, 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





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# SHORT CONTAINER FOR PROFI MOBILE

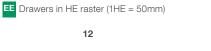
- Body made of 19mm melamine resin covered chipboard with 2mm PP plastic edge.
- Robust organizable sheet steel drawer with single drawer blocking system in HE raster (1HE = 50mm).
- Ball bearing guided telescopic extension, max. 25kg.
- Ergonomically bevelled front made of 19mm thick melamine resin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









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

A Version	EE Drawers	T Depth	<b>F</b> Туре	B Width
1 Standard	12 1x Drawer, height: 170mm	<b>0</b> 580mm	1 Standard	<b>0</b> 420mm
3 ESD 📩	23 2x Drawer, height: 290mm	<b>1</b> 680mm	2 Design	<b>5</b> 523mm
	22 1HE Pencil Drawer + 2HE + 3HE; H: 340mm	<b>2</b> 780mm		<b>7</b> 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 Railing	g
431.000.100	Standard	
433.000.100	ESD	<u>a</u>



# 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.

19" Inst	rument Rack for PROFI M	lobile	420.06 <mark>H</mark> .00 A
н	Height	Α	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 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 closed for PROFI extensions for PR

closed version for PROFI extensions

Bru	sh Channel,	vert	ical		401.0 <mark>H</mark>	H. A	F 0						
ΗH	Height									Α	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, hori	izontal 401.0 BB. A M 0		
BB Width		A Version	M Extensions
<b>05</b> 500mm <b>09</b>	900mm <b>13</b> 1295mm	5 closed	5 full width (-0mm)
<b>06</b> 603mm <b>10</b>	1000mm	6 slotted	6 SINGLE/MULTI (-80mm)
<b>08</b> 800mm <b>12</b>	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 3G1,50mm<sup>2</sup> (length 2m) with angled Type F plug.



19" Socket Strip 1	9" 1HE		
293.405.400	5x socket with switch and overvoltage protection, mains- and frequency filter	293.407.300	7x socket with switch and overvoltage protec- tion (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.

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

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.



## 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 <mark>B</mark> . T 01		
	В	Width			Т	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 Holde	r
299.221.501	with Cable Comb (D: 66mm)
299.221.551	no Cable Comb (D: 40mm)



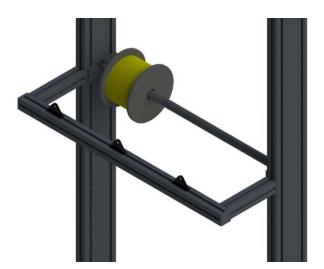


# PROFI CABLE DISPENSER, SHAFT

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 seperation 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).

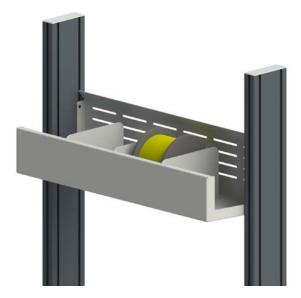
١	Width		Width	
	420mm	448.050.900	920mm	448.100.900
	523mm	448.060.900	1215mm	448.130.900
	720mm	448.080.900		

# 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				





# 

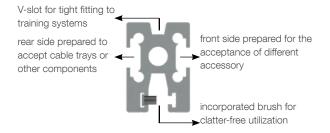
# **MOBILE TRAINING STANDS** INDIVIDUALLY CONFIGURED FOR BETTER RESULTS!

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 modularily equipped with lamps for sun simulation, tiltable of fixed training system frame, with modular power consoles, monitor arms, shelves or any other practical components.





- 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).





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461. BB H .9 F O **Training System Frame BB** Bench Width H Levels / Height **F** Extensions **O** H-Profile 0 1x H-Profile aluminium anodized 05 500mm **10** 1000mm 0 for PROFI Mobile 0 1295mm 1 2x H-Profile / 360mm 5 2 powder coated 06 603mm 13 for ENERGY Mobile 2 3x H-Profile / 680mm 08 800mm 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.

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	<u>&amp;</u>
440.117.200	Base with Glides	
440.117.300	ESD Base with Glides	

• Optionally with lockable bracket or -hood to prevent unauthorized removal of test leads.

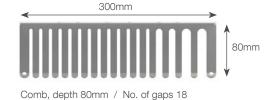


Width / No. of gaps	Basic Depth: 80mm	Comb Depth: 160mm	Lockable Bracket for Basic Comb	Comb for Hooded Version Depth: 160mm	Hood Depth: 160mm
300 / 17	448.160.000	448.170.000	448.170.700	448.170.100	448.170.500
500 / 31	448.180.000	448.190.000	448.190.700	448.190.100	448.190.500
603 / 37	448.200.000	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 Diamenter 500mm	



# SHELF BOX FOR PROFI MOBILE CORD HOLDER

- Sheet steel box with bores for the fixaton 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 of 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.

EASY Cart 1 TT.10 A.9 R 0						
тт	Depth	A Version	RC	Caster		
19	800mm	2 Standard	0	75mm		
20	900mm	7 ESD 🔼	1	100mm		
21	1000mm		2	125mm		

## **ESD-Version:**

- Surface and volume conductive top plate and intermediate shelf, sides with antistatic 3mm PP plastic edge.
- ESD casters.



# DRAWER FOR EASY CART

- Body made of 19mm thick melamine resin covered chipboard with 2mm PP plastic edge.
- Drawer front with whole width handle strip.
- Central lock with 2 keys (master-key-system).
- Sheet steel drawer with perforation for separators, durable conductive powder coating in light grey. Inner drawer dimensions: 495 x 70mm (WxH). Inner drawer depth: 485mm (D: 580) / 685mm (D: 780).
- Telescopic extension on ball-bearings, load capacity: 25kg (optionally full extension, load capacity: 45kg).

Drawer for EASYcart	Standard	ESD	
Depht: 580mm	431.120.054	433.120.054	
Depht: 780mm	431.122.054	433.122.054	

# 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

20.100.100

## **ESD-Version:**

- Surface and volume conductive body according to DIN EN61340.
- Conductive handle strip







# 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:**



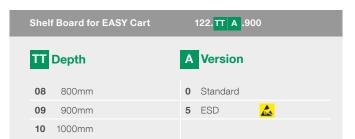
- Surface and volume conductive top plate and intermediate shelf, sides with antistatic 3mm PP plastic edge.
- ESD casters.

EAS	Y Storage Ca	rt 1 <mark>1</mark>	T .15 A .9 R		
Π	Depth	Α	<b>/</b> ersion	R	Caster
19	800mm	2	Standard	0	75mm
20	900mm	7	ESD 🧧	1	100mm
21	1000mm			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.







# 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).

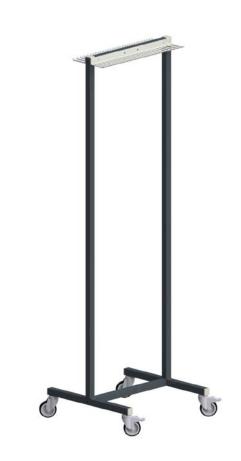
## Version with Plastic Tines:

• Both sides with U-profiles, each with 34 tines, applicable for different cable diameters.

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	
with Tines	299.222.900
with Aluminium Comb	299.223.900
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 for the storage of 50 test leads per side.
- Durable powder coated steel parts.
- Dimensions: 710 x 500 x 1650mm (WxDxH).

EASY Mobile Cord Holder (plug	type)
for 2mm test leads	299.201.900
for 4mm test leads	299.202.900
for 4mm safety test leads	299.204.900





# **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. The top holds an instrument rack with circuit breakers, power sockets and all required sources & instruments as well as a training system frame where the required trainers can be fitted.

This solution allows you to use the trainers in each regular classroom.





18-

# 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.

EAS	Y 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	<b>0</b> 780mm <b>2</b> 780mm	5 ESD 📩
12	1200mm		<b>1</b> 1200mm <b>3</b> 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.





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 modularily 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.

Bas	se for FLEX Mobile	141.5	BB. HH0		
BE	<sup>3</sup> Width	HH	leight		
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		14(	0.0 <mark>HH</mark> .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.

Se	et of Casters / L	.evele	rs for FLEX Mobile 141.50 A DDD
A	Version	DDD	Туре
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.

Swiv	vel Shelf for	FLEX	lobile 140.	2 BB.0 1	0
BB	Width			т	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 FL	EX Mob	oile 140.2 <mark>BB</mark> .5	<b>T</b> 0	
BB	Width			т	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				



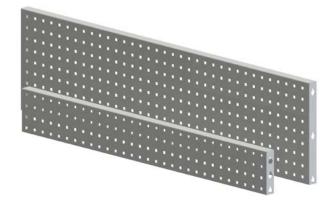
- Sheet steel trough with slotted front for cable dispensing.
- Slotted bottom and sides for the adaption to the individual cable reel widths.
- Sides with holes for the fixation between extensions and rear side prepared for hooking into perforated backplanes.
- Made of sheet steel with durable conductive powder coating in light grey.

Cable Dispenser for FLEX Mobile					
141.206.000	Width: 460mm				
141.208.000	Width: 660mm				
141.210.000	Width: 860mm				
141.212.000	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.

Perf	orated Ba	ckpla	ne for FLEX Mob	oile	140.5 <mark>BB</mark> .0 <mark>H</mark> 0
BB	Width			Н	Height
06	460mm	10	860mm	1	150mm
08	660mm	12	1060mm	3	350mm







#### Technical details are subject to change. © 2023.09 | www.hera.de





# CHAPTER 7: CONTAINERS

- 202 LC Container (9HE)
- 204 PROFI Container (11HE)
- 206 PROFI Pedestal Container (13HE)
- 207 PROFI Short Container
- 208 PROFI Narrow & Wide Container
- 209 PC Container and Training System Storage
- 210 PROFI Divider & Seperator

- 212 Tool Sets for PROFI Container
- 214 Drawer Inserts for PROFI Container
- 215 Drawer Inserts and Tools for Wide Container
- 216 PROFI Tower Container
- 218 Sheet Steel Container
- 221 Sheet Steel Short Container & Drawer Divider
- 222 Plastic Bins and Anti-Slip Mat



# **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 with Handles in RAL-Code

Premium Mobile Container 9HE handle-free grip strip

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.

## 7. CONTAINERS



12.





Mobile Container

## O Top Drawer

- with lock and small part tray
- pencil drawer with lock 1HE



Small Part Tray



Suspended Container



Pencil Drawer Standard (not available in ESD; depth: 20mm)



ESD Version

swivel casters.

according DIN EN 61340

Body made of surface and volume conductive material, conductive metal drawers and fronts, ESD

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 Tray



1HE + 2HE + 6HE with Pencil Drawer



V1: 3HE + 2HE + 4HE V2: 3HE + 3HE + 3HE with Small Part Tray



V1: 1HE + 2HE + 3HE + 3HE V2: 1HE + 2HE + 2HE + 4HE with Pencil Drawer



3HE + 2HE+ 2HE + 2HE with Small Part Tray



1HE +2HE + 2HE + 2HE + 2HE, with Pencil Drawer



Container with Door, right hinges



Container with Door, left hinges

PROFI Container (9HE)	43 A . E O T . F	в 3							
A Version	E Features	O Top D	rawer	T De	epth	F Form		В	Width
1 Suspended	2 2x Drawers	5 3HE with	small part tray	0	580mm	0 Standard	d, Handle	0	420mm
2 Mobile	3 3x Drawers V1	6 1HE Pend	il Drawer Standar	d <b>1</b>	680mm	2 Premium	i, no Handle	6	600mm
3 ESD Suspended 📩	5 3x Drawers V2	7 1HE Pend	il Drawer PLUS	(only s	suspended)	3 Premium	, Handle	(non s	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					wder coated		//		1
439.100.003 Drawer Closing with SoftStop (per drawer)			6	according	to RAL Code			7	1
439.100.303 Pencil Drawer PLUS				Ergonomic bevelled fronts (per					
439.100.403 ESD Pencil Draw	er PLUS 🔼		container)				1		
439.100.503 Electric Lock with	RFID or Remote Controllec	1					1		



# **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 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:

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, seperators 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



Premium 75mm Twin Casters (300kg)



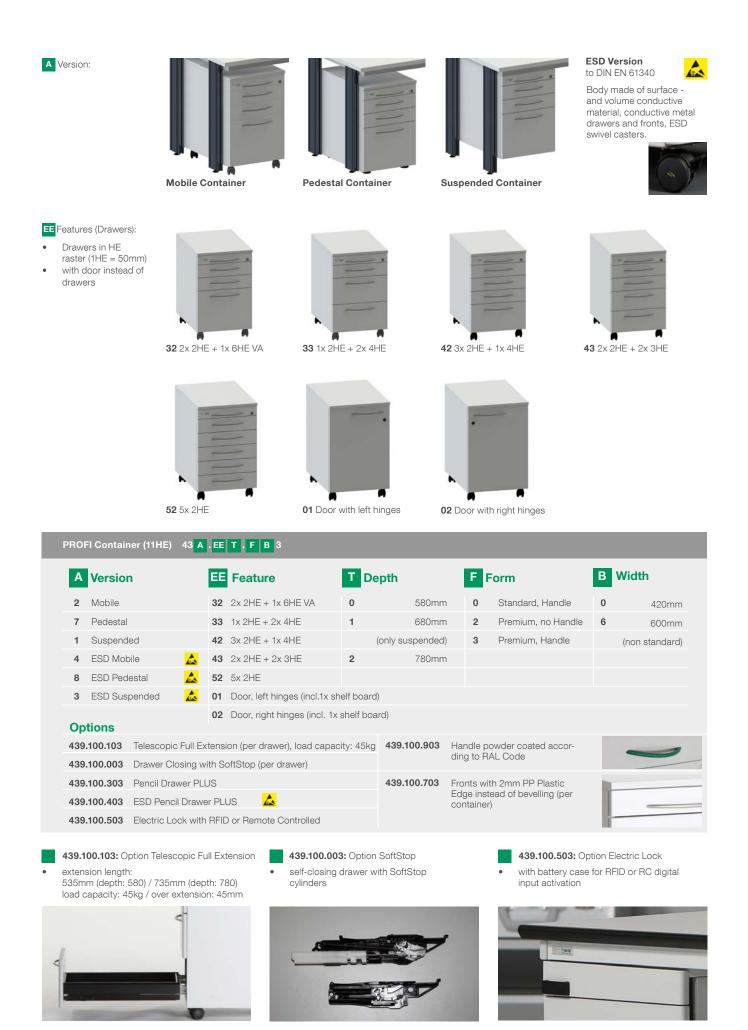
Handleless Grip Strip

## **PROFI** Container

- Drawer fronts and top plate ergonomically bevelled
- extraordinary stable connection with casters due to metal support
- ergonomically foldable keys

## 7. CONTAINERS







# PROFI PEDESTAL CONTAINER (13HE)

- See details to body and drawers on page 204 (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 Туре
5 Standard	<b>22</b> 2x 6HE VA	0 580mm 0 Standard	0 Under Bench, Width 420mm
6 ESD 📩	<b>32</b> 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
	<b>44</b> 4x 3HE		
	<b>52</b> 3x 2HE + 2x 3 HE	Optionen	
	<b>53</b> 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	h SoftStop (per drawer)
	01 Door, left hinges	439.100.903 Option handle powder coa	ated according to RAL Code (per drawer)
	02 Door, right hinges	439.100.703 Drawer fronts with 2mm P	P 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 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 Freatures	T Depth	F Form	B Width
1 Standard	12 1x Drawer, height: 170mm	<b>0</b> 580mm	0 Standard, Handle	<b>0</b> 420mm
3 ESD 🚣	23 2x Drawers, height: 290mm	<b>1</b> 680mm	2 Premium, no Handle	e 6 600mm
	13 Door, left hinges, height: 340mm	<b>2</b> 780mm	3 Premium, Handle	(non standard)
	14 Door, right hinges, hight: 340mm			
	22 1x 1HE Pencil Drawer + 1x 2HE+ 1x 3H	ΙE		
	24 1HE Extendable Tray with Full Extension	on + 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

xx.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.
- Width: 600mm.

- Sheet steel drawers, sides with slots in 100mm raster for seperators.
   Durable conductive powder coated in light grey.
   Inner width: 495mm
   Inner depht: 485mm (D: 580/680) / 685mm (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





# **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
	Depht:	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 4	3 A	.0 R T 003			
Α	Version	R	Туре		Т	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
Doo	r for PC Container		43 A .03 M . F 03			
Α	Version	Μ	Туре	F	F	Form
1	Suspended	8	Wooden, 19mm	0	V	vith Handle
	Suspended Pedestal	8 9	Wooden, 19mm Safety Glass, 6mm	0 2		vith Handle Handleless



# 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 DIVIDERS

- 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

OFI 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

OFI 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			



# SPARE PARTS FOR PROFI CONTAINER

- Master -, group or single key systems are possible.
- A service key is required for changing locks.

## Spare Parts for PROFI 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



# 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		







# TOOL SETS FOR PROFI CONTAINER

Tool Sets suitable for PROFI Containers, depth: 580mm / 680mm / 780mm. Drawer full extension recommended!



# 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

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

39.600.300

00 Tool Set VD

# 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 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
- Scribbing 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 Schrewdriver 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





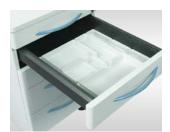


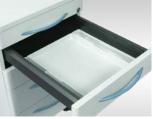


# PROFI DRAWER INSERT

• Trays made of light grey plastics, dimensions: 330 x 326 x 30mm (WxDxH).

PROFI Draw	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
- 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

#### **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)





439.050.100

4x



439.051.100



439.051.200

# **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	Replacement Casters (Set) 50mm incl. Support
499.700.550	Replacement ESD Casters (Set) 50mm incl. Support
499.700.600	Replacement Design Casters (Set) 75mm
499.700.650	Replacement Design ESD Casters (Set) 75mm





# **MOBILE SET** FOR EASY CONTAINER

- To convert a suspended EASY container into a mobile • container (only for retrofitting as EASY containers are discontinued).
- Four steerable casters (diameter: 75mm), two with • brakes.
- Lightgrey top plate 30mm. •

# **SPARES** FOR EASY CONTAINER

The lock is mounted in the containers' side panel and • can be replaced by detaching the leaf spring.

Spares for EAS	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		

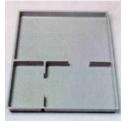




462 x 560mm (WxD), only for PROFI Wide Containers.

# EASY DRAWER INSERT

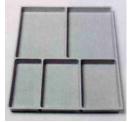
• Made of deep-drawn plastics in grey.



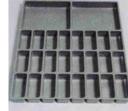




192.011.300



•





192.011.500





192.011.400



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 TOWER CONTAINER

- Outer and inner body amde of 19mm thick melamine resin covered chipboard, completely assembled.
- Outer body with leveling feet and 13mm thick decorative rear panel.
- Surrounding rubber lip as dust shield.
- 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.
- Usable width: 370mm (W: 440mm) and 560mm (W: 630mm).

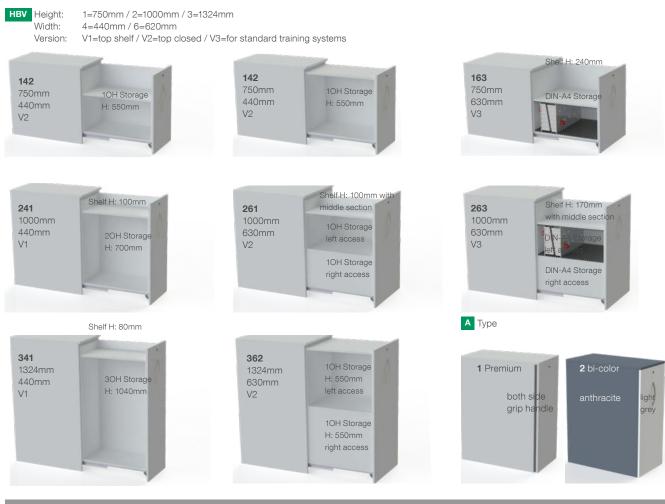






#### 7. CONTAINERS





PROFI Storing Tower

430. HBV . T Z A

HBV	Height / Width / Version	T Depth (	useable)	Z	Opening	Α	Туре		
141	H: 750mm / W: 440mm / V1	<b>0</b> 800mm (6	60mm)	0	left access	0	Standard light grey	3	Premium bi-color
142	H: 750mm / W: 440mm / V2	1 900mm (7	'60mm)	1	right access	1	Premium light grey	5	ESD light grey 🔼
163	H: 750mm / W: 630mm / V3	<b>2</b> 1000mm (	760mm)	2	both sided	2	Standard bi-color	6	Premium ESD light grey
241	H: 1000mm / W: 440mm / V1	Accessory							
242	H: 1000mm / W: 440mm / V2	480.307. <b>B</b> 1 <b>A</b>	Wooden Shelf	f 19	mm light grey, for	D: 6	60		
262	H: 1000mm / W: 630mm / V2	480.307. <b>B</b> 2 <b>A</b>	Wooden Shelf	f 25	mm light grey, for	D: 6	60		
263	H: 1000mm / W: 630mm / V3	480.308. <b>B</b> 1 <b>A</b>	Wooden Shelf	f 19	mm light grey, for	D: 7	60		
341	H: 1324mm / W: 440mm / V1	480.308. <b>B</b> 2 <b>A</b>	Wooden Shelf	f 25	mm light grey, for	D: 7	60		
342	H: 1324mm / W: 440mm / V2	480.308.B00 Sheet Steel Shelf 24mm, light grey for D: 760 (conductive powder coating)							
362	362       H: 1324mm / W: 630mm / V2       B=0 for W: 630 / B=4 for W: 440 / A=0 Standard / A=5 ESD								
		430.000.100 Extendable Tray 376 x 354 x 40mm (WxDxH)							
		430.000.200	Extendable Tr	ay 3	376 x 354 x 60mn	n (W	xDxH)		

#### 430.000.100: Extendable Tray Type 1

- Plastic Compartment tray in alu optics
- 376 x 354 x 40mm (WxDxH)
- Metal runners, for undershelf installation
- Load capacity: 6kg



#### 430.000.200: Extendable Tray Type 2

- Plastic Tray in alu optics
- 376 x 354 x 60mm (WxDxH)
- Metal runners, for undershelf installation
- Load capacity: 6kg



#### Sockets and Jacks

 optionally with Compact Terminal and Modules (see page 079)





# **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 seperators 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.









- 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 lable 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.

# 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



2x 50 + 2x 100 + 1x 150



3x 50 + 4x 75



9x 50

Sheet Steel Containe

49	F	в	0	Е	.0	т	Α
		_					

F Form	B Width	E Features	T Depth	A Version
2 Mobile	<b>4</b> 411mm	<b>3</b> 1x 100 + 1x 150 x 1x 200	<b>5</b> 572mm	0 light grey RAL7035
3 Suspended	<b>5</b> 564mm	<b>5</b> 2x 50 + 2x 100+ 1x 150	<b>7</b> 725mm	1 anthracite RAL7016
		<b>7</b> 3x 50 + 4x 75		5 ESD light grey 📩
		<b>9</b> 9x 50		6 ESD anthracite 🛕

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.







#### **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 • lable 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.

EE Features (drawers)

#### **ESD Version:**

- Conductive finshing.
- Load capacity of drawers: max. 50kg •



2x 75 + 1x 150 + 1x 300	6x 100	8x 75	7x 50 + 2x 75 + 1x 100	12x 50
Pedestal Sheet Steel Co	ntainer 495. <mark>B EE</mark> .0 T A			

B Width	EE Features	T Depth	A Version
<b>4</b> 411mm	<b>04</b> 2x 75 + 1x 150 + 1x 300	<b>5</b> 572mm	0 light grey RAL7035
<b>5</b> 564mm	<b>06</b> 6x 100	<b>7</b> 725mm	1 anthracite RAL7016
	<b>08</b> 8x 75		5 ESD light grey 📩
	<b>10</b> 7x 50 + 2x 75 + 1x 100		6 ESD anthracite 📩
	<b>12</b> 12x 50		

#### **BASE** FOR PEDESTAL SHEET STEEL CONTAINER

- The base is for height adaption, in combination with a • 30mm benchtop 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 Widt	h T Depth	A Version					
<b>4</b> 411mm	<b>5</b> 572mm	0 Standard					
<b>5</b> 564mm	n <b>7</b> 725mm	5 ESD 🙇					

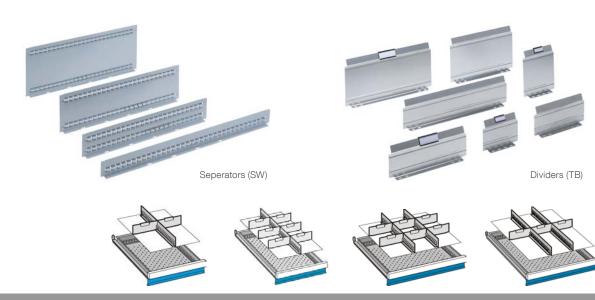




<ul> <li>See the details to</li> <li>Total drawer heigh</li> <li>Height: 283mm.</li> <li>EE Features (drawers)</li> </ul>	SHORT CONTAINER sheet steel containers on page 219. th: 200mm. (1 + 2) + 2x + 75					
Sheet Steel Short Co	ontainer 494. B EE 0 T A					
B Width	EE Features	T Depth	A Version			
<b>4</b> 411mm	<b>02</b> 1x 50 + 1x 150	<b>5</b> 572mm	0 light grey RAL7035			
<b>5</b> 564mm	<b>03</b> 1x 50 + 2x 75	<b>7</b> 725mm	1 anthracite RAL7016			
	<b>04</b> 4x 50		5 ESD light grey 🛕			
			6 ESD anthracite 🙇			

#### **PARTITION SET** FOR SHEET STEEL CONTAINERS

- Sets of seperators and dividers in 17mm raster. Seperators and dividers made of sheet steel.
- Suitable to the different container widths, depths and drawer heights.



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.



Standard Version

ESD Version

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 49	496.30 <mark>B</mark> .0 <mark>T</mark> 0		
В	Width	T	Depth	
4	411mm	5	572mm	
5	564mm	7	725mm	









#### CHAPTER 8: CABINETS

- 227 Cabinet Base, Wood and Steel
- 228 Cabinet Casters and Drag Base
- 230 Cabinet with Hinged Door
- 231 Compartment Cabinet and Sliding Door Cabinet
- <u>232</u> Glass Door and Partial Glass Door for Cabinet
- 233 Roller Shutter Cabinet and Shelf
- 234 Middle Wall and Corner Cabinet
- 235 Shelf Board, Wooden and Sheet Steel
- 236 Telescopic Shelf Board and Book End
- 238 Wardrobe Rail, Shelf Board for Training Systems, Cable Support for Cabinet

- 239 Integrated Drawer and File Frame
- 240 Drawer Cabinet
- 241 Drawer Seperators and Dividers
- 242 File Cabinet and Middle Plate
- 243 Ladder and Rail for Cabinet Wall
- 244 Configured Cabinets for Training Systems
- 245 Option RFID Locks
- 247 Sheet Steel Drawer Cabinet
- 248 Seperators for Sheet Steel Drawers
- 249 Sheet Steel Cabinet
- 250 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 types of equipment. The cabinets are highly durable and will not suffer from several disassemblies and re-assemblies for relocating. Due to decorative rear walls, the cabinets are most suitable for room dividers.





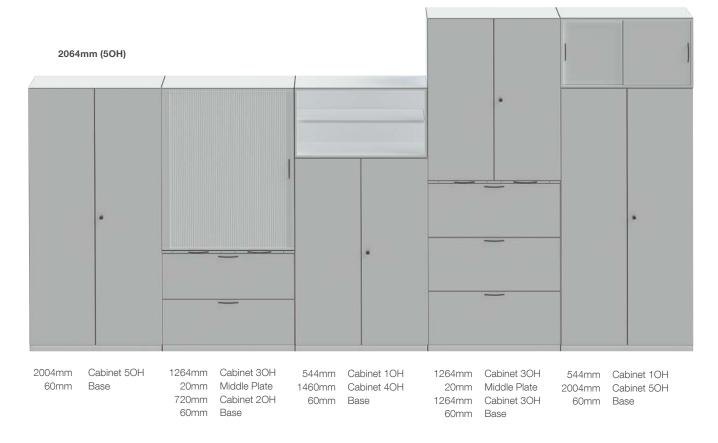
#### 1520mm (4OH)



#### The modular Cabinet System

- 4 widths: 420mm, 800mm, 1000mm, 1200mm
- 3 depths: 430mm, 525mm, 625mm
- 5 heights:
  - 10H = 544mm, 20H = 720mm,

30H = 1264mm, 40H = 1460mm, 50H = 2004mm



#### 2608mm (6OH)



# TYPES OF **DECORS**



light grey decor

# 

beech decor

#### **ESD Version**

- surface - and volume conductive



- conductive connections from top to floor



#### FUNCTIONAL DECORS

AVAILABLE **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.	ТНА		
BB Width	T Depth	H Height	A Version
<b>04</b> 420mm	<b>0</b> 595mm	<b>0</b> 60mm	0 Standard
<b>08</b> 800mm	<b>4</b> 400mm	<b>3</b> 30mm	5 ESD 📩
<b>10</b> 1000mm	<b>5</b> 495mm		
<b>12</b> 1200mm	6 645mm (only H: 60mm)		
13 1300mm (only H: 60mm)			
<b>16</b> 1580mm			

#### **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	Т	Depth
04	420mm	0	595mm
08	800mm	4	400mm
10	1000mm	5	495mm
12	1200mm	6	645mm
13	1300mm		
16	1580mm		







#### 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		0.0 BB . T RR
BB Width	T Depth	RR Casters
<b>08</b> 800mm	<b>0</b> 595mm	60 Set of Casters Ø: 75mm / load capacity 80kg (per caster)
<b>10</b> 1000mm	<b>5</b> 495mm	65 Set of ESD Casters Ø: 75mm / load capacity 80kg (per caster)
<b>12</b> 1200mm	<b>6</b> 645mm	70 Set of Casters Ø: 100mm / load capacity 100kg (per caster)
<b>13</b> 1300mm		75 Set of ESD Casters Ø: 100mm / load capacity 100kg (per caster)
<b>16</b> 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



folders



core



(600x400mm)



suitable for storing boxes in Euro standard 270° opening metal hinges



surrounding rubber lip for dust protection

Hing	ed Door Cabinet 481.	IBB.TFA			
H	Height (excl. base)	BB Width	T Depth	<b>F</b> Туре	A Version
1	10H (544mm)	<b>04</b> 420mm 1-door	<b>0</b> 625mm	<b>0</b> 1-door or 2-door,	0 Standard
2	20H (720mm)	08 800mm 2-door	<b>4</b> 430mm	right hinges	5 ESD <u>a</u>
3	30H (1264mm)	10 1000mm 2-door	<b>5</b> 525mm	1 1-door, left hinges	
4	40H (1460mm)	12 1200mm 2-door	6 675mm (for Euro	b Boxes)	
5	50H (2004mm)	13 1300mm 2-door for Eur	o 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/m<sup>2</sup>; 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 <mark>BB</mark> . <mark>T</mark> 00
BB Width	T Depth
<b>08</b> 800mm	<b>0</b> 625mm
<b>10</b> 1000mm	<b>4</b> 430mm
<b>12</b> 1200mm	<b>5</b> 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.

Compartment Cabinet

(excl. base)

2 Rows (720mm)

3 Rows (1264mm)

**H** Height

2

3

• Doors with hinges on the right side, with lock (master-key-system) and handle knob.

487. H BB. T 0 A

**BB** Width

**08** 800mm

12 1200mm



**A** Version

Standard

A

0

5 ESD

**T** Depth

0

4

625mm

430mm

**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 BB Width

- H Height (excl. base)

  - **08** 800mm
  - 20H (720mm)
- 3 3OH (1264mm)4 4OH (1460mm)
- 4 4OH (1460mm)5 5OH (2004mm)

1 10H (544mm)

2

10 1000mm
 12 1200mm

**16** 1580mm

**0** 625mm

T Depth

**4** 430mm

525mm

5



0

5











#### 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 4						481. H	BB.050
H Height						BB	Width
1	10H	544mm	4	40H	1460mm	04	420mm
2	20H	720mm	5	50H	2004mm	08	800mm
3	30H	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.

Op	Option Partial Safety Glass Doors 481. H BB .060						
ŀ	Hei	ight				BB	Width
1	10H	544mm	4	40H	1460mm	04	420mm
2	20H	720mm	5	50H	2004mm	08	800mm
3	ЗОН	1264mm				10	1000mm
						12	1200mm







Safety Glass Doors

Doors with Safety Glass Inlays

1



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 483. H BB. T 0 A							
H Height (excl. base)	BB Width	T Depth	A Version				
<b>1</b> 10H (544mm) <b>3</b> 30H (1264mm)	<b>08</b> 800mm	<b>0</b> 625mm	0 Standard				
<b>2</b> 20H (720mm) <b>4</b> 40H (1460mm)	<b>10</b> 1000mm	<b>4</b> 430mm	5 ESD 🙇				
	<b>12</b> 1200mm	<b>5</b> 525mm					

#### 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

Height (excl. b	ase)	BB Width	T Depth	A Version
<b>1</b> 10H (544mm)	<b>3</b> 3OH (1264mm)	<b>04</b> 420mm <b>12</b> 1200mm	<b>0</b> 625mm	0 Standard
<b>2</b> 2OH (720mm)	<b>4</b> 40H (1460mm)	<b>08</b> 800mm <b>13</b> 1300mm	<b>4</b> 430mm	5 ESD 📩
	5 50H (2004mm)	<b>10</b> 1000 mm (for Euro	Boxes) <b>5</b> 525mm	
			6 675mm (for Eu	iro Boxes)



#### 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					
<b>1</b> 10H 544mm <b>4</b> 40H 1460mm	0 562mm (cabinet depth: 625mm)	0 Standard					
<b>2</b> 20H 720mm <b>5</b> 50H 2004mm	4 367mm (cabinet depth: 430mm)	5 ESD 🛕					
<b>3</b> 3OH 1264mm	5 462mm (cabinet depth: 525mm)						

#### OPTION WALL FIXATION FOR 10H AND 20H CABINETS AND SHELVES

- This option holds the preperation 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 480.091.00



#### 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		
<b>F</b> Туре	H Height	T Depth	A Version
0 Corner Shelf	1 10H 544mm 4 40H 1460mm	<b>0</b> 625mm	0 Standard
1 1-Door Corner Cabinet	2 20H 720mm 5 50H 2004mm	<b>4</b> 430mm	5 ESD 📩
2 2-Door Corner Cabinet	<b>3</b> 3OH 1264mm	<b>5</b> 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/m<sup>2</sup> (19mm thick) 90kg/m<sup>2</sup> (25mm thick)





Metal Shelf Clip

#### Nooden Shelfboard 480.3 BB. T S A

BB Width	Т	Depth	S	Thick	Α	Version	
03 370mm (for W: 800-Cabinets with Middle Wall)	0	560mm	1	19mm	0	Standard	
04 380mm (for W: 420-Cabinets)	4	365mm	2	25mm	5	esd 📩	
<b>05</b> 470mm (for W: 1000-Cabinets with Middle Wall)	5	460mm					
<b>26</b> 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 (	Cabin	ets)					
10 960mm (for W: 1000-Cabinets and W: 1200-Roller Shutter (	Cabin	ets)					
12 1160mm (for W: 1200-Cabinets)							

#### 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/m<sup>2</sup>.
- Height: 24mm.

#### Sheet Steel Shelfboard

- load capacity 125kg/m<sup>2</sup>
- durable conductive powder coating

Shelfboard 480.3BB . T 00

#### BB Width

03	370mm (for W: 800-Cabinets with Middle Wall)	0
04	380mm (for W: 420-Cabinets)	4
05	470mm (for W: 1000-Cabinets with Middle Wall)	5
06	570mm (for W: 1200-Cabinets with Middle Wall and W: 800-Roller Shutter Cabinets)	6
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)	





extra reinforcement for highest load capacity

- T Depth
  - 560mm (Cabinet Depth: 625mm)
- 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

**BB** Width

480.6 <mark>BB</mark> . T 2 A

\_\_\_\_

04 380mm (for W: 420-Cabinets)

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)

ESD Version with volume and surface dissipative shelf and dissipative telescopic rails.

**A** Version

0

5

Standard

ESD 📩

#### TELESCOPIC HEAVY DUTY SHELFBOARD IN ESD

 Sheet steel shelfboard with 3fold bent front and rear with extra reinforcement.

03 370mm (for W: 800-Cabinets with Middle Wall)

05 470mm (for W: 1000-Cabinets with Middle Wall)

06 570mm (for W: 1200-Cabinets with Middle Wall)

- 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)
- 06 571mm (for W: 1200-Cabinets with Middle Wall)
- 08 762mm (for W: 800-Cabinets)
- **10** 962mm (for W: 1000-Cabinets)
- 12 1162mm (for W: 1200-Cabinets)

#### T Depth

- 0 560mm (Cabinet Depth: 625mm)
- 4 360mm (Cabinet Depth: 430mm)
- 5 460mm (Cabinet Depth: 525mm)



- 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



A



# 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 countless 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.

#### 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

- 04 380mm (for W: 420mm)
- 05 470mm (for W: 1000 with Middle Wall)
- 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)

#### T Depth

#### А Туре

- 0 545mm (for D: 625mm)
- 1-side with Slotted Mat 5 2-sides with Slotted Mat

0

- 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.



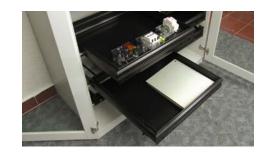


- 4 350mm (for D: 430mm)



#### **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		T Depth	A Version
<b>04</b> 380mm (for W: 420-Cabinets)	10 960mm (for W: 1000-Cabinets)	0 Cabinet Depth: 625mm	0 Standard
06 570mm (for W: 1200-Cabinets with Middle Wa	I) <b>12</b> 1160mm (for W: 1200-Cabinets)	4 Cabinet Depth: 430mm	5 ESD <u></u>
<b>08</b> 760mm (for W: 800-Cabinets)			

A

#### FILING FRAME

- Frame for hanging files, made of sheet steel, durable . black powder coated with metallic seperator.
- Approx. 33mm over extension. •
- Load capacity: 700N.
- Height: 91mm. .



Filing Frame 480.8 BB. T 00		
BB Width		T Depth
04 380mm (for W: 420-Cabinets)	10 960mm (for W: 1000-Cabinets)	0 Cabinet Depth: 625mm
06 570mm (for W: 1200-Cabinets with Middle Wall)	12 1160mm (for W: 1200-Cabinets)	4 Cabinet Depth: 430mm
<b>08</b> 760mm (for W: 800-Cabinets)		

#### 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 <mark>BB</mark> .7 H A			
BB Width		H Height		A Version
<b>04</b> 380mm	<b>10</b> 960mm	<b>2</b> 2HE	<b>4</b> 4HE	0 Standard
<b>06</b> 570mm	<b>12</b> 1160mm	<b>3</b> 3HE	6 6HE	5 ESD 📩
<b>08</b> 760mm				



#### **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.

Loud capacity. 700	N.		
Height: 91mm.			
	486.204.030	486.308.470	486.312.490
Drawer Cabinet	486. H BB. T S A		

Drawer Gabinet	400. 11 00. 11 0			
H Height	BB Width	T Depth	S Drawers	A Version
<b>2</b> 20H 720mm	<b>04</b> 420mm	<b>0</b> 625mm	<b>3</b> for Height 720: 1x 3HE + 2x 4HE	0 Standard
3 30H 1264mm	<b>08</b> 800mm	<b>4</b> 430mm	<b>4</b> for Height 720: 3x 3HE + 1x 2HE	5 ESD 📩
	<b>10</b> 1000mm		5 for Height 720: 1x 3HE + 4x 2HE	
	<b>12</b> 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

- Seperates 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
<b>2</b> 20H (720mm)	<b>04</b> 420mm <b>10</b> 1000mm	<b>0</b> 625mm	0 Standard
<b>3</b> 3OH (1264mm)	<b>08</b> 800mm <b>12</b> 1200mm	<b>4</b> 430mm	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	
<b>04</b> 420mm	<b>0</b> 625mm	00 19mm Standard	
<b>08</b> 800mm	<b>4</b> 430mm	05 19mm ESD 📩	
<b>10</b> 1000mm	<b>5</b> 525mm	30 30mm Standard	
<b>12</b> 1200mm		35 30mm ESD <u></u>	

#### **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
<b>08</b> 800mm	<b>0</b> 625mm	0 Standard
<b>10</b> 1000mm	<b>4</b> 430mm	5 ESD 🚣
<b>12</b> 1200mm	<b>5</b> 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 <mark>B.B</mark> TA
BB Width	T Depth	A Version
<b>04</b> 420mm	<b>0</b> 625mm	0 Standard
<b>08</b> 800mm	<b>4</b> 430mm	5 ESD 📩
<b>10</b> 1000mm	<b>5</b> 525mm	
<b>12</b> 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





Telescopic Ladder with Casters

Side Port for Ladder





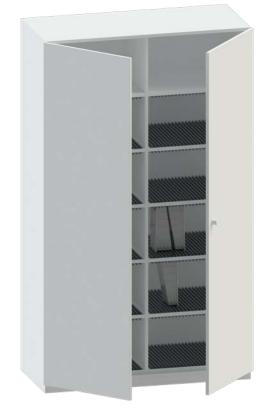
Ladder with Hooks for Rail



#### 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 metalic leveling screws.
- 5x levels for the storage of standard training systems and 360mm compartment.
- Total height: 2054mm.

Training System Cabinet - F	ully Configured 488.1 <mark>BB</mark> . <mark>T</mark> 00
BB Width	T Depth
<b>08</b> 800mm	<b>0</b> 625mm
<b>10</b> 1000mm	<b>4</b> 675mm
<b>12</b> 1200mm	5 525mm (halfsized panels)



Training System Cabinet for standard A4 Training Systems

#### STORAGE AND PLASTIC 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.
- Open shelf or double door cabinet prepared for 2x 11 trays (W: 774mm, D: 675mm, H: 750mm) or for 2x 34 trays (W: 774mm, D: 675mm, H: 2054mm) incl. 50mm sheet steel base.
- Cabinets with 270° opening metall hinges with espagnolette lock and handle knob.

Cabinets, Open Shelves & Co	ontain Cabinets & for Trays
-----------------------------	-----------------------------

439.060.000	Plastic Tray 693x305x35mm (WxDxH)
435.102.003	Pedestal Container for Trays, no door
435.112.003	Pedestal Conainer for Trays (right hinged door)
435.112.003	Pedestal Conainer 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



Double Door Cabinet for plastic trays





Shelf Cabinet for plastic trays

Pedestal Container 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						



#### OPTION RFID LOCK

- 13,56 MHz; MIFARE® Classic, MIFARE® DESFire EV1, EV2.
- Status indication with LED and buzzer.
- Longlasting battery operation.
- Up to 50 cards or chips programmable.
- Programmable with master card (not included).
- **Containers:** motor-driven bolt lock (same dimensions than standard lock).
- One-Door -, Sliding Door -, Roller Shutter Cabinets: RFID lock with integrated antenna and mandrel lock.
- Double-Door Cabinet:
   Electric espangnolette lock with 3-point locking.





Option RFID Lock							
439.100.503	for Containers with Drawers						
480.900.100	for One-Door -, Sliding Door - Roller Shutters						
480.900.200	for Double-Door Cabinets						
301.087.102	Master Card Set (master card & service card)						
302.087.102	Set RFID MIFARE Tags (10pcs.)						





302.087.102



# 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).



498.710.520



**ESD Version:** 

•

•

Conductive powder coating.

Load capacity per drawer: 50kg.

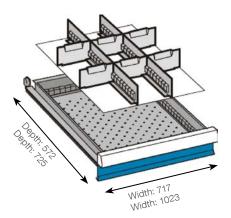
498.714.710

498.707.530

heet Steel Drawer Cabinet

498. B HH. T S A

B Width	HH Height	T Depth	S	Drawers	A	Version
<b>1</b> 1023mm	<b>07</b> 700mm	<b>5</b> 572mm	1	8x 75 (H: 700)	0	light grey RAL7035
<b>7</b> 717mm	<b>08</b> 850mm	<b>7</b> 725mm		10x 75 (H: 850)	1	anthracite RAL7016
	<b>10</b> 1000mm			12x 75 (H: 1000)	5	ESD light grey 📩
	<b>14</b> 1450mm			18x 75 (H: 1450)	6	ESD anthracite 🚣
			2	4x 75 + 2x 150 (H: 700)		
Base for Forklift	s			4x 75 + 3x 100 + 1x 150 (H: 850)		
498.110.500	WxDxH: 1023x506x100	Omm		4x 75 + 3x 100 + 2x 150 (H: 1000)		
498.110.700	WxDxH: 1023x659x100	Omm		6x 75 + 3x 100 + 4x 150 (H: 1450)		
498.710.500	WxDxH: 717x506x100r	nm	3	2x 75 + 2x 100 + 1x 250 (H: 700) for W:1023	not a	vailable in ESD
498.710.700 WxDxH: 717x659x100mm				4x 75 + 2x 100 + 2x 200 (H: 1000)		
				4x 75 + 2x 150 + 1x 300 (H: 1000) for W:1023	not a	vailable in ESD
				2x 75 + 4x 100 + 4x 200 (H: 1450)		

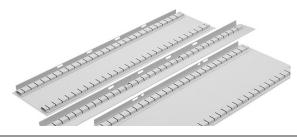






#### SLOTTED PARTITIONS FOR SHEET STEEL DRAWER

- 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 lable holders or barcode lables.
- 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

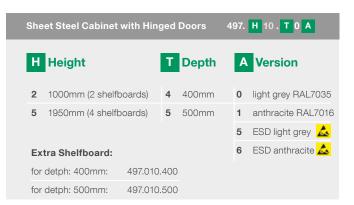
- Sheet steel cabinet prepared to be placed on top of a sheet steel drawer cabinet.
- Available with hinged doors or sliding doors (only witdth: 1023mm).
- Optionally doors with window (acrylic glass inlay).
- Height: 1000mm (clear height: 930mm).
- Incl. 1x anodized shelfboard (load capacity: 60kg).



Top-Mount Cabinet	498. B 0 A . T 0 A		
B Width	АТуре	T Depth	F Color
<b>1</b> 1023mm	0 with Hinged Doors	<b>5</b> 572mm	0 light grey RAL7035
<b>7</b> 717mm	1 with Hinged Doors and Acrylic Inlay (only W: 1023)	<b>7</b> 725mm	1 anthracite RAL7016
	2 with Sliding Doors (only W: 1023)		
	<b>3</b> 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.







Standard Lock Code Lock on demand



#### SHEET STEEL SLIDING DOOR CABINET

- Completely welded sheet steel construction for a maximum of stability. Load capacity: 500 - 950kg (>= 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

н	Height	BB	Width	Т	Depth	Α	Color
2	1000mm (2 shelfboards)	10	1000mm	4	400mm	0	light grey RAL7035
	(>= W: 1500 with middle wall and 4 shelfboards)	12	1250mm	5	500mm	1	anthracite RAL7016
5	1950mm with 4 shelfboards	15	1500mm with Middle W	all			
	(>= W: 1500 with middle wall and 8 shelfboards)	20	2000mm with Middle W	all			

#### 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						Β.	T 0 A	
B Width			Т	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 📩	
					(		ESD anthracite 🚣	
				9		anodized		





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.

heet 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	0 2000mm (5 shelfboards)	<b>0</b> 1000mm	<b>4</b> 400mm	0 light grey RAL7035
braces + 1 cross stiffener)	2 2200mm (5 shelfboards)	<b>3</b> 1300mm	<b>5</b> 500mm	1 anthracite RAL7016
3 Add-On Unit (1 pair of	5 2500mm (5 shelfboards)		<b>6</b> 600mm	5 ESD light grey 📩
braces)				6 ESD anthracite 🔽
				9 anodized





#### CHAPTER 9: INSTRUMENT RACKS FOR KP, EP, MP MODULES

- 254 PROFI Extensions ENERGY
- 255 EASY / PROFI ENERGY Profile
- 258 EASY / PROFI Aluboard 60°
- 260 EASY / PROFI Aluboard Compact 195
- 262 EASY / PROFI Aluboard Compact 125 / 250 / 350
- **264** PROFI Aluboard Compact with integrated sockets
- **265** TFT Support and Keyboard Shelf for ENERGY Profile
- 266 Tray, Perforated Panel and Sleeve for ENERGY Profile
- **268** Function Board and Function Container
- 269 Undertop Energy Board
- 270 EP Energy Channel (sheet steel)
- **271** PROFI Instrument Rack for EP / MP (sheet steel)
- **272** EASY EP Energy Channel 45° (sheet steel)

- 273 PROFI Instrument Rack for EP / MP (wood)
- 274 PROFI Module Rack and EASY MEP Rack
- **276** Retractable Rack: Foldaway Mechanism
- **278** Retractable Rack: Hideaway Mechanism
- 279 Hexagonal Team Rack for EP / MP
- **280** Retractable Team Rack: Hideaway Mechanism
- **281** Tower Board for EP / MP, Signal Lamp
- **282** PROFI LED Status Light
- **283** Cable Run Options and Integrated Sockets
- **284** Shelf Units and Carrying Cases
- 285 Cables and Plugs

286





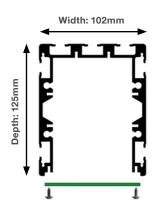


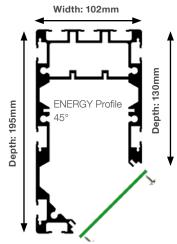




# **KP SYSTEM -**VERTICAL OR HORIZONTAL

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.







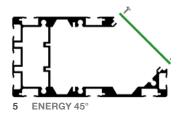
ENERGY

0





7 PROFI Bench w. Power Legs



PROFI Extensions ENER	3Y 320. <mark>HH</mark> B.9 A 0			
HH Height (in 100mm	Raster)		<b>B</b> Fixation	A Version
<b>02</b> 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	t for one sided
06 2x 14KP H: 600mm	11 2x 26KP H: 1100mm		installation of I	ENERGY Extension

B Fixation

A Version



#### 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).

3.0000



EASY EI	NERGY Profile	320. <mark>BBB</mark> .0 A 0			
BBB \	Width			Α	Version
<b>060</b> 14	4KP W: 600mm	126 31KP W: 1260mm	160 39KP W: 1600mm	0	ENERGY
<b>080</b> 19	9KP W: 800mm	129 32KP W: 1295mm	180 44KP W: 1800mm	5	ENERGY 45°
<b>090</b> 22	2KP W: 900mm	148 36KP W 1485mm	<b>200</b> 49KP W: 2000mm		
<b>100</b> 24	4KP W: 1000mm	150 37KP W: 1500mm	230 57KP W: 2303mm		
<b>120</b> 29	9KP W: 1200mm				

# 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.

12: 1000001...1

#### ENERGY:

- With surrounding profile slots.
- Dimensions: 125 x 102mm (DxH).

#### ENERGY 45°:

- With surrounding profile slots.
- Dimensions: 195/130 x 102mm (DxH).







# **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 benchtop 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.





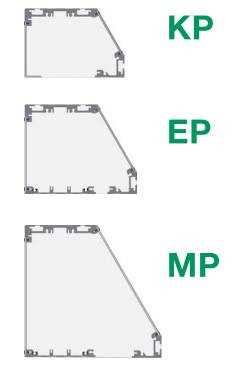
#### ALUBOARD 60° FOR KP, EP OR MP

The Aluboard 60° is a modular combination of aluminium profiles. This instrument rack is suitable for modules in KP, EP or MP raster. The Aluboard 60° can be installed directly on a benchtop (EASY version) or suspended under a shelf or shelf rack (PROFI version).

- Slots compatible with SINGLE and MULTI profile.
- 2x sheet steel side covers.
- Durable powder coated according to RAL Code.

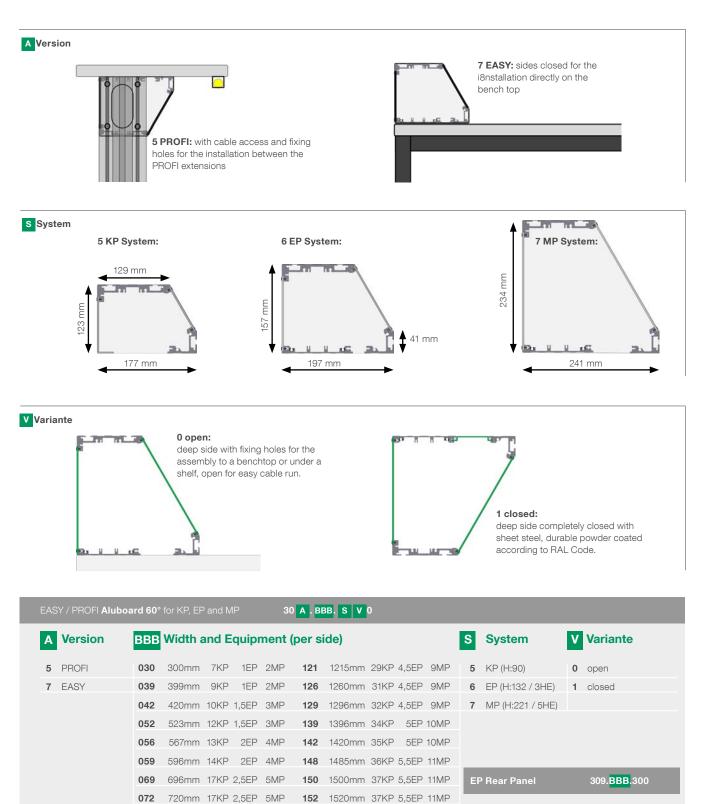
#### Rear side:

- KP type incl. sheet steel rear panel with ventilation slots, durable light grey powder coated.
- EP type **without** rear panel, modular equipable with modules in EP raster or EP rear panel.
- MP type incl. sheet steel rear panel with ventialation slots, durable light grey powder coated.



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Rear Panel for EP Aluboard 60° with ventilation slots and cable outlet, made of sheet steel, durable light grey powder coated.



079

080

082

090

092

099

100

109

112

120

796mm 19KP 2,5EP

820mm 20KP

900mm 22KP

920mm 22KP

1091mm 26KP

1120mm 27KP

1200mm 29KP

996mm 24KP 3,5EP

1000mm 24KP 3,5EP

800mm 19KP 2,5EP 6MP

5MP

3EP 6MP

3EP 6MP

7MP

7MP

3EP 6MP

4FP 8MP

4EP 8MP

4EP 8MP

159

160

172

179

180

192

200

209

222

230

1596mm 39KP 5,5EP 11MP

1600mm 39KP 5,5EP 11MP

1796mm 44KP 6,5EP 13MP

1800mm 44KP 6,5EP 13MP

1920mm 47KP 7EP 14MP

2099mm 52KP 7,5EP 15MP

2223mm 55KP 8EP 16MP

2303mm 57KP 8,5EP 17MP

6EP 12MP

7EP 14MP

1720mm 42KP

2000mm 49KP

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# THE **ALUBOARD,** FITS FOR KP, EP AND MP MODULES

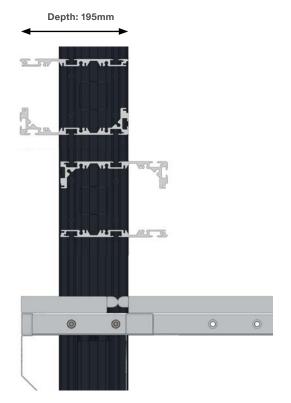
#### **ALUBOARD**

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).











PROFI: between the extensions, on variable height



EASY: on top of ENERGY extensions or benchtop

#### S System



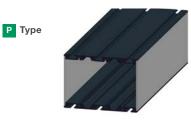
KP System: Front Panel Height: 90mm



EP System: Front Panel Height: 132mm (3HU)



MP System: Front Panel Height: 221mm (5HU)



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 212mm EP: MP: 301mm

#### 30 A .BBB. S P 0

Α	Version	BBB	Width a	and E	quipr	nent	(per si	ide)				S
5	PROFI	030	300mm	7KP	1EP	2MP	121	1215mm	29KP	4,5EP	9MP	2
	EASY	039	399mm	9KP	1EP	2MP	126	1260mm	31KP	4,5EP	9MP	3
		042	420mm	10KP	1,5EP	3MP	129	1296mm	32KP	4,5EP	9MP	4
		052	523mm	12KP	1,5EP	3MP	139	1396mm	34KP	5EP	10MP	
		056	567mm	13KP	2EP	4MP	142	1420mm	35KP	5EP	10MP	
		059	596mm	14KP	2EP	4MP	148	1485mm	36KP	5,5EP	11MP	
		069	696mm	17KP	2,5EP	5MP	150	1500mm	37KP	5,5EP	11MP	
		072	720mm	17KP	2,5EP	5MP	152	1520mm	37KP	5,5EP	11MP	_
		079	796mm	19KP	2,5EP	5MP	159	1596mm	39KP	5,5EP	11MP	Re
		080	800mm	19KP	2,5EP	6MP	160	1600mm	39KP	5,5EP	11MP	Rea
		082	820mm	20KP	3EP	6MP	172	1720mm	42KP	6EP	12MP	mac
		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	Ξ
		100	1000mm	24KP	3,5EP	7MP	200	2000mm	49KP	7EP	14MP	Ξ
		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	

S	System	Ρ	Profile
2	KP	0	F/F
3	EP (3HU)	1	F/F prepared for shelf
4	MP (5HU)	2	F/U
		3	F/U prepared for shelf
		4	U/F prepared for shelf
		5	U/U
		6	<b>U/U</b> prepared for shelf
Re	ar Panel		309. <mark>BBB.</mark> S00

ar panel with ventilation slots and cable outlet, de or durable powder coated sheet steel



# ALUBOARD COMPACT IN VARIOUS DEPTHS

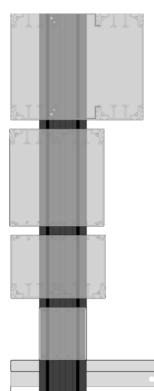
### ALUBOARD COMPACT

The Aluboard Compact is made of aluminium extrusions and it is available in different heights and different depths to accomodate 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).



Depth: 350mm MP Aluboard Compact N/N

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Depth: 250mm MP Aluboard Compact N/F

Depth: 250mm EP Aluboard Compact F/N

Depth: 125mm EP Aluboard Compact F/F

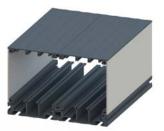




#### T Depth



Depth: 125mm F/N Profile



Depth: 250mm F/N Profile



Depth: 350mm F/N Profile

#### S System



**KP System:** Front Panel Height: 90mm



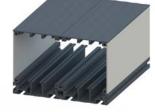
EP System: Front Panel Height: 132mm (3HU)



MP System: Front Panel Height: 221mm (5HU)



Total Height F/FKP:98mmEP:140mmMP:229mm



 Total Height F/N

 KP:
 128mm

 EP:
 170mm

 MP:
 259mm

30 T. BBB. E A 0



 Total Height
 N/N

 KP:
 150mm

 EP:
 192mm

 MP:
 281mm

EASY / PROFI Aluboard Compa

### T Depth

#### BBB Width and Equipment (per side)

4	125mm	030	300mm	7KP	1EP	2MP	121	1215mm	29KP	4,5EP	9MP
6	250mm	039	399mm	9KP	1EP	2MP	126	1260mm	31KP	4,5EP	9MP
8	350mm	042	420mm	10KP	1,5EP	3MP	129	1296mm	32KP	4,5EP	9MP
			523mm	12KP	1,5EP	3MP	139	1396mm	34KP	5EP	10MP
			567mm	13KP	2EP	4MP	142	1420mm	35KP	5EP	10MP
		059	596mm	14KP	2EP	4MP	148	1485mm	36KP	5,5EP	11MP
		069	696mm	17KP	2,5EP	5MP	150	1500mm	37KP	5,5EP	11MP
		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
	100 109		1000mm	24KP	3,5EP	7MP	200	2000mm	49KP	7EP	14MP
			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

Е	System	Α	Туре
2	KP	0	F/F Profile
3	EP (3HU)	1	F/F Profile for Shelf
4	MP (5HU)	2	F/N Profile
		3	F/N Profile for Shelf
		4	N/F Profile for Shelf
		5	N/N Profile
		6	N/N Profile for Shelf
R	ear Panel		309. <mark>BBB.</mark> S00

Rear panel with ventilation slots and cable outlet, made or 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. Other sockets on demand!

W: 523 - 1091mm:22W: 1120 - 1485mm:22W: 1500 - 2303mm:22

2x single socket 2x double socket 2x triple socket

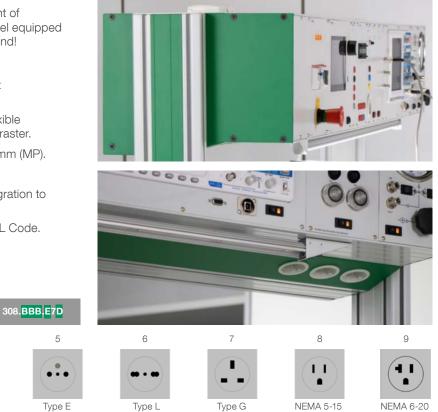
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- Front and rear side prepared for the flexible acceptance of modules in KP, EP or MP raster.
- Height: 128mm (KP) / 170mm (EP) / 259mm (MP).
- Depth: 350mm.

D Socket

- Terminal clamp for power cable and integration to inhouse emergency stop loop.
- Durable powder coated according to RAL Code.

3







# FLEXIBLE ACCESSORY ATTACHMENT DUE TO SLOTTED PROFILES

The ENERGY profile and the aluboards 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 PROFI TFT 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)



491 056 100

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 fo	or Profile Installation	320. <mark>B T</mark> 9.100				
В	Width	Т	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 Prof	ile Installatio	n 32	0. <mark>B T</mark> 9.200
В	Width		Т	Depth
4	400mm		3	300mm
5	500mm		4	400mm



# 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.

6

600mm

- Screw for position lock and earthing.
- For the acceptance of various tool holders.

Perfora	ated Panel f	320. B H 9.4 A 0				
В	Width	H	leight	Α	Version	
4	400mm	1	150mm	0	top / bottom	
5	500mm	3	300mm	5	rear (only	
6	600mm	4	400mm		ENERGY profile)	



# **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



# KEEP BULKY FUNCTION-UNITS CONVENIENTLY UNDER THE BENCH

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.



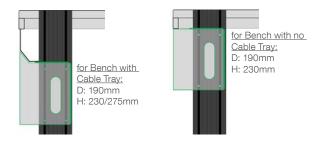
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#### PROFI FUNCTION BOARD

- Durable powder coated sheet steel channel.
- Ventilation slots at the rear side and bottom.
- 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.





PROFI Function Board					422. BB0. F21, A							
BB Width & Equipment (with Power Legs)										Α	Version	
08	800mm	2,5EP	(2EP)	15	1500mm	5EP	(4,5EP)	0	SINGLE / MULTI	0	Bench with Cable Tray	
09	900mm	3EP	(2,5EP)	16	1600mm	5,5EP	(5EP)	2	ENERGY	5	Bench with no Cable Tray	
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)					

# PROFI FUNCTION CONTAINER 11HE

- 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-keysystem) and 2 keys.
- Compartment for IMOD Function-Unit seperated 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)



A Version	ЕЕ Туре	T Depth	F Form	B Width
1 Standard	28 1x 2HE + 1x 4HE + 1x FU-Compartment	<b>0</b> 580mm	0 Standard	<b>0</b> 420mm
3 ESD	38 3x 2HE + + 1x FU-Compartment	<b>1</b> 680mm	2 DESIGN	<b>6</b> 600mm
		<b>2</b> 780mm		

43 A.EE T.F B 3



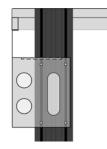
# SHEET STEEL BOARDS -THE EXCELLENT ALTERNATIVE

The sheet steel boards are available for EP and MP modules and can be installed directly on the benchtop 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).





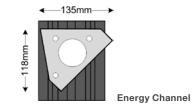
PROFI Under Top Energy Board 422. BB 0. F 20

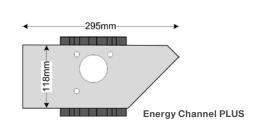
BB	Width &	Equip	oment (v	vith Power Legs)		F Real	r Profile			
08	800mm	2,5EP	(2EP)	15	1500mm	5EP	(4,5EP)	0 SING	LE / MULTI	
09	900mm	3EP	(2,5EP)	16	1600mm	5,5EP	(5EP)	2 ENEF	RGY	
10	1000mm	3EP	(2,5EP)	18	1800mm	6EP	(5,5EP)			
12	1200mm	4EP	(3,5EP)	20	2000mm	7EP	(6,5EP)			
13	1295mm	4,5EP	(4EP)	23	2303mm	8EP	(7,5EP)			



#### PROFI ENERGY CHANNEL AND ENERGY CHANNEL PLUS FOR EP

- Ergonomically tilted sheet steel channel with 45° front, durable powder coated.
- Hight 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).





#### PROFI Channel 425.BB 0. F 1 G

G Type

BB	Width 8	Equ	ipment (	ENERGY Pro	ofile)			F	Extensions	G	Туре
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			<b>G</b> Туре
00 1213 x 1213mm 5EP	12 1035 x 1035mm 3EP	<b>20</b> 1200 x 1000mm 4EP	1 Energy Channel
10 835 x 835mm 2,5EP	<b>18</b> 935 x 935mm 3EP	<b>22</b> 1000 x 1200mm 4EP	2 Energy Channel PLUS

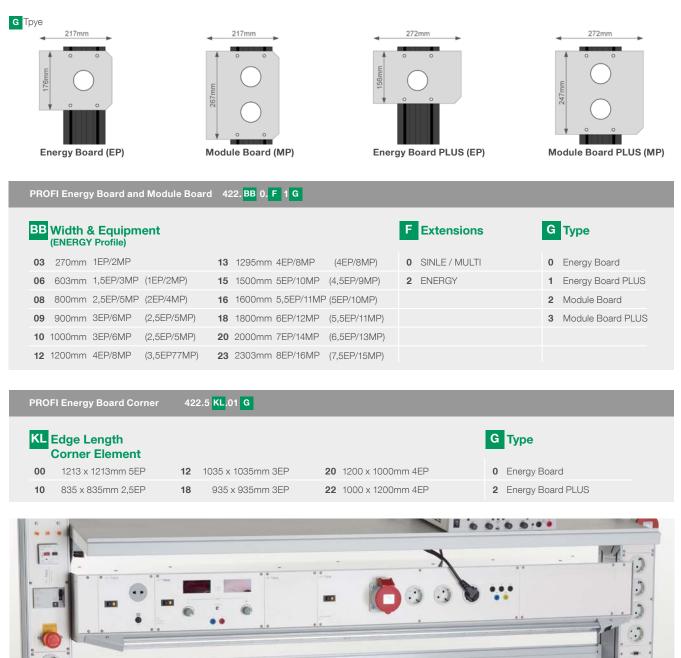


### PROFI ENERGY BOARD AND MODULE BOARD FOR EP AND MP

- Durable powder coated sheet steel channel.
- Perforation at the rear side and bottom for air ventilation.
- Hight 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.



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#### EASY ENERGY CHANNEL 45° FOR EP

- Ergonomically tilted sheet steel channel with 45° tilted instrument front, durable powder coated for benchtop 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 Chan	nel 45°		315. <mark>BBB</mark> .500						
BBE	Width & Ed	quipment								
030	300mm 1EP	080	800mm 2,5E	EP <b>112</b>	1120mm	4EP	148	1485mm 5,5EP	180	1800mm 6,5EP
052	523mm 1,5EP	082	820mm 3E	EP <b>120</b>	1200mm	4EP	150	1500mm 5,5EP	192	1920mm 7EP
059	596mm 2EP	090	900mm 3E	EP <b>121</b>	1215mm	4,5EP	152	1520mm 5,5EP	200	2000mm 7EP
060	600mm 2EP	092	920mm 3E	EP <b>126</b>	1260mm	4,5EP	159	1596mm 5,5EP	209	2099mm 7,5EP
069	696mm 2,5EP	099	996mm 3,5E	EP <b>129</b>	1296mm	4,5EP	160	1600mm 5,5EP	222	2223mm 8EP
072	720mm 2,5EP	100	1000mm 3,5E	EP <b>139</b>	1396mm	5EP	172	1720mm 6EP	230	2303mm 8,5EP
079	796mm 2,5EP	<sup>o</sup> 109	1091mm 4E	EP <b>142</b>	1420mm	5EP	179	1796mm 6,5EP		





# THE CLASSIC WOODEN BENCH RACKS

Wooden bench racks are available for the assembly on the benchtop (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.





- 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.



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PROFI Energy Board and Module Board, Wood					d, Wood	422. BB F .51 A					
BB	Width &	Equip	oment					F	Extension	Α	Version
06	603mm	2EP	4MP	15	1500mm	5EP	10MP	0	SINGLE / MULTI (Energy Board)	0	Standard
08	800mm	2,5EP	5MP	16	1600mm	5,5EP	11MP	1	SINGLE / MULTI (Module Board)	5	esd 📩
09	900mm	3EP	6MP	18	1800mm	6,5EP	13MP	2	ENERGY (Energy Board)		
10	1000mm	3,5EP	7MP	20	2000mm	7EP	14MP	3	ENERGY (Module Board)		
12	1200mm	4EP	8MP	23	2303mm	8EP	16MP				
13	1295mm	4,5EP	9MP								

PROFI Energy Board and Module Board for Corners 422. G KL .51 A

<b>G</b> Туре	KL Corner Element	A Version
5 Energy Board	00 1213 x 1213mm 5EP 10MP	<b>18</b> 935 x 935mm 3EP 6MP <b>0</b> Standard
6 Module Board	10 835 x 835mm 2EP 4MP	20 1200 x 1000mm 4EP 8MP 5 ESD
	12 1035 x 1035mm 3,5EP 7MP	22 1000 x 1200mm 4EP 8MP





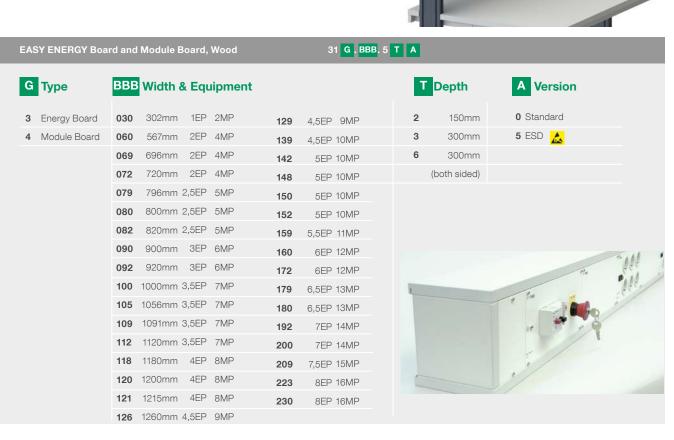
- Light grey body, made of 19mm melamine resin • covered chipboard.
- Sides with cutout for the PROFI extensions.
- Detachable powder coated rear panel with two cable • glands.
- Front side prepared for the acceptance of modules in EP or MP raster.
- Terminal clamp for the connection of the power cable and an optional inhouse emergency off cable.





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- Energy Board, height: 170mm. •
- Module Board, height: 260mm.





#### 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. •



#### 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.

311. BB5.50 A

- Depth: 350 / 300mm.
- Height: 420mm. •

EASY MEP Rack



BB Width &	& Equipment			A Version
<b>06</b> 567mm	4MP + 2EP	<b>15</b> 1485mm	10MP + 5EP	0 Standard
<b>09</b> 900mm	6MP + 3EP	<b>16</b> 1600mm	11MP + 5,5EP	5 ESD 🙇
<b>10</b> 1000mm	7MP + 3,5EP	<b>18</b> 1800mm	13MP + 6,5EP	
<b>13</b> 1260mm	9MP + 4,5EP	<b>20</b> 2000mm	14MP + 7EP	







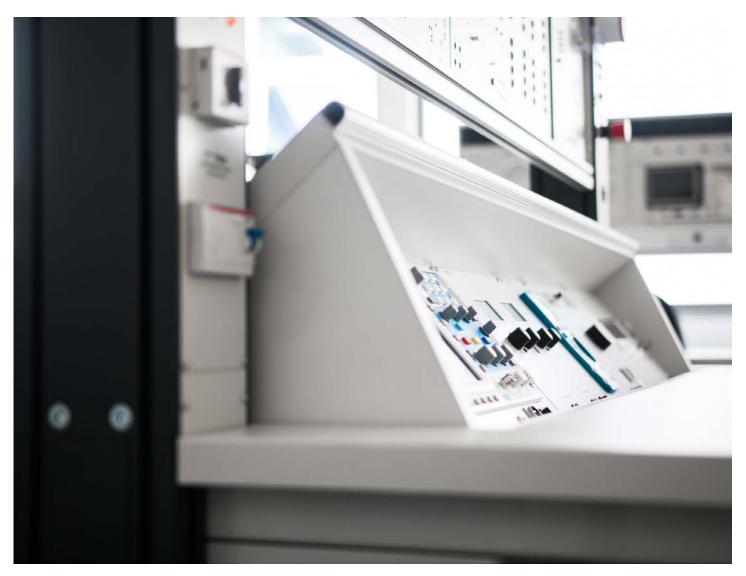


# RETRACTABLE BENCH RACKS FOR A MAXIMUM OF PRECAUTION

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 benchtop when the instrument panel is closed and full instrumentation whenever required.







### FOLDAWAY MECHANISM FOR ENERGY BOARD AND MODULE BOARD

- Energy Board or Module Board flush integrated in the benchtop 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 Foldaway Mechanism





**Option Foldaway Mechanism** 

00.010



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 (automatic switch off 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

25.900.100



#### Double Bruise Protection

- mechanically due to double rubber lip
- electrically due to lifts with switch off automatic

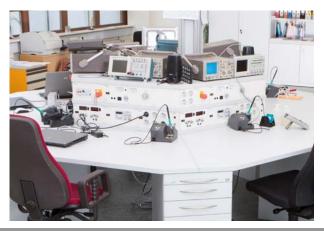


EASY Bench Combination with Hideaway Module Board



#### 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

<b>G</b> Туре	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		





425.900.150

- Lifting mechanism for hexagonal team racks. The team racks are equipped with detachable service flap.
- Instument 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.

Hideway Mechanism for Hexagonal Team Rack



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# 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 prepared for the acceptance of modules in EP or MP raster.
- Durable powder coated according to RAL-Code.
- Depth: 300mm; width: 275mm.

Точ	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		T Depth	A Version
11 1EP + 2MP (395mm)	03 3x 2MP (710mm)	<b>2</b> 150mm	0 Standard
02 2x 2MP (485mm)	22 2x 1EP + 2x 2MP (748mm)	<b>3</b> 300mm	5 ESD 🚣
12 1EP + 2x 2MP (620mm)	60 6x 1EP (832mm)	6 300mm both sided	

#### 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	L Version	<b>B</b> Fixation	D Diameter
<b>1</b> 1× LE (red)	1 5W Lamp	0 for Rack or ENERGY Extension	0 70mm Standard
2 2x LE (red / green)	3 LED	1 for SINGLE/ MULTI Extension	1 40mm Slim
3 3x LE (red / green / yellow)		2 side of Extension	





#### PROFI STATUS-LIGHT RGB

The PROFI Status-Light is an innovative safety feature for electrical lab benches and is positioned on top of 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.

360

#### 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

Extension

Single Color Signalling SINGLE/MULTI



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 <mark>P . A</mark> 00 (Note: Control Element re	equired)
P PROFI Extension		А Туре
1 SINGLE/MULTI	3 ENERGY 45° left	1 First LED Level
2 ENERGY	4 ENERGY 45° right	2 Extra LED Level
Poquired Centrel		

#### **Required Control:**

331.040.100	Power Supply for Control
331.040.500	3-Channel Control incl. P

Power Supply for Control (only single color signalling) 3-Channel Control incl. Power Supply for Color Changing





# CABLE GLAND IN ALUMINIUM PROFILE

- Cable access with cable gland in the rear side of the aluminium profile for hidden cable runs.
- The option for lamps include a milled slot in a shelf or rack and plastic slot cover.

Cable Gland in Aluminium Profile		
458.000.100	for Lamps with Milled Slot	
458.000.200	for Cables without Milled Slot	

# COVER PLATE FOR CABLE ACCESS

Cover plate for PROFI Extension ENERGY or ENERGY 45° equipped with:

- Plastic cable grommet, 60mm.
- Cable gland M20 / M25.

Cover Plate fo	r Cable Access
458.001.500	60mm Cable Grommet, light grey
458.001.100	60mm Cable Grommet, anthracite
458.001.001	1x Cable Gland (M20)
458.001.002	2x Cable Gland (M20 + M25)



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### INTEGRATED SOCKETS FOR METAL RACK AND ALUBOARD COMPACT

- PE sockets type F (other types on demand!) with flap, integrated in aluboard compact (only D: 350mm) or other metal instrument racks.
- Completely wired and connected to the central supply.

Integrated Sockets for Metal Rack and Aluboard Compact

291.016.201PE Socket Type F with Flap (2pcs)291.016.401PE Socket Type F with Flap (4pcs)



# INTEGRATED SOCKETS FOR WOODEN RACK

- Top side of the wooden body with squared cutout (rounded corners and plastic edge).
- PE sockets with flap, integrated in the bench wiring.
- Available in international standards.

#### Integrated Sockets for Wooden Rack

291.006.201 291.006.401 PE Socket Type F with Flap (2pcs) PE Socket Type F with Flap (4pcs)

# SLEEVE FOR LAMP WITH HINGED ARM

- Plastic sleeve integrated into a wooden instrument rack.
- Diameter: 13mm.

Sleeve for Lamp with Hinged Arm 291.003.100







# 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.

EP/MP Shelf Unit

333.080.502

333.081.002

333.081.502

333.082.002

336.084.002

336.082.002

336.083.002

• Usable height: 100mm (EP) / 190mm (MP).



EP Shelf Unit 1,5EP



MP Shelf Unit 4MP (optional with integrated socket strip)

### CARRYING CASE FOR EP AND MP

0,5EP

1EP

2EP

2MP

3MP

4MP

(W: 132mm)

(W: 264mm)

(W: 528mm)

(W: 264mm)

(W: 396mm)

(W: 528mm)

1,5EP (W: 396mm)

- 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. <mark>BB</mark> 0. <mark>G</mark> 01		
BB	Equipment		G	Туре
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.







# **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 the plug does not fit through profile openings. Other plugs on demand!





Cables and Plugs			
291.001.030	3m (3x 1,5mm²) with open end	291.001.256	5m (3x 1,5mm²) with G-type plug (British)
291.001.100	5m (3x 1,5mm²) with open end	291.001.258	4m (3x 1,5mm²) with NEMA5-15 plug
291.001.140	F-type plug (Schuko), detachable	291.001.300	5m (5x 2,5mm²) with CEE plug 16A red
291.001.144	T12-type plug (Swiss), detachable	291.001.350	5m (5x 6mm²) with CEE plug 32A red
291.001.147	G-type plug (British), detachable	291.001.400	5m (3x 1,5mm <sup>2</sup> ) with CEE plug, 3poles blue
291.001.257	5m (3x 1,5mm <sup>2</sup> ) 10A, J-type plug (Swiss)	291.001.500	5m Emergency off cable (2x 1,5mm <sup>2</sup> ), open end
291.001.200	3m (3x 1,5mm <sup>2</sup> ) with F-type plug (Schuko)	291.001.550	3m Emergency off cable (2x 1,5mm <sup>2</sup> ), open end
291.001.250	5m (3x 1,5mm <sup>2</sup> ) with F-type plug (Schuko)	291.001.603	3m Patch cable, grey, 2x RJ45 jacks CAT6
291.001.130	3m (5x 2,5mm²) with open end	291.001.605	5m Patch cable, grey, 2x RJ45 jacks CAT6
291.001.150	5m (5x 2,5mm²) with open end	291.001.610	10m Patch cable, grey, 2x RJ45 jacks CAT6





# CHAPTER 10: KP/EP/MP MODULES FOR INSTRUMENT RACKS

<u>289</u>	Blank Panel	<u>318</u>	IMOD Control-Unit
<u>290</u>	Equipment for Compensating Panel	<u>320</u>	IMOD Function-Unit: AC Source 1phase
<u>291</u>	Mains Panel	<u>322</u>	IMOD Function-Unit: AC Source 3phase and Measuring
<u>295</u>	BenchControl EASY and RFID Reader	<u>324</u>	IMOD Function-Unit: DC Power Supply
<u>296</u>	KP Socket Panel, Type F	<u>326</u>	IMOD Function-Unit: High Performance DC Supply
<u>297</u>	KP Socket Panel, international	<u>327</u>	IMOD Function-Unit: Function Generator
<u>298</u>	EP / MP Socket Panel	<u>328</u>	IMOD Function-Unit: Multimeter
<u>300</u>	3phase Socket (CEE) and 4mm-Outlet	<u>330</u>	IMOD Didactic Supply
<u>302</u>	Selective Poles and Installation Cavity Box	<u>331</u>	IMOD BenchControl and RFID Reader
<u>303</u>	Cable Access, Continuity Tester, Test Speaker	<u>333</u>	Control Software: IMODdesktop
<u>304</u>	Isolating Transformer	<u>336</u>	ICOM DC Power Supply
<u>305</u>	Measuring Modules, Analog and Multifunctional	<u>337</u>	Variable AC Source 1- and 3phase
<u>306</u>	Interfaces and Keystones	<u>340</u>	Function Generator and Power Amplifier
<u>308</u>	Soldering - , Desoldering Station	<u>342</u>	ICOM Function Generator and Multimeter
<u>310</u>	Pneumatic Module	<u>343</u>	Digital Multimeter
<u>311</u>	R-Decade and Load Resistance	<u>346</u>	Oscilloscope
<u>312</u>	C- and L-Decade	<u>347</u>	Standard Voltage / - Current, Digital Thermometer
<u>313</u>	AC Low Voltage	<u>348</u>	Pneumatic Calibrators
<u>314</u>	DC Fixed Voltage	<u>350</u>	Electrical Appliance Tester
<u>315</u>	DC Power Supply Compact	<u>354</u>	Notice
<u>316</u>	ICOM Didactic Supply		

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# 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 anytime
- height: KP = 90mm EP = 132mm (3HU)
  - MP = 221mm(5HU)
  - width: KP = 40mm
    - EP = 264mm (52TE)

hera

MP = 132mm (26TE)





#### KP BLANK PANEL

- For closing open spaces in KP instrument racks.
- Aluminium front panel with fixing screws.

KP BI	ank Panel	321.0 <mark>BB</mark>	.002		
BB \	Nidth				
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		

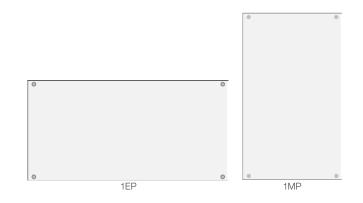




#### EP/ MP BLANK PANEL

- For closing open spaces in EP / MP instrument racks.
- Aluminium front panel with fixing screws.

Blan	k Panel 3	B <mark>S</mark> .	<mark>BB</mark> 0.102	2			
S	System	BB	Width				
3	EP	05	0,25EP		30	1,5EP	1,5MP
6	MP	10	0,5EP	0,5MP	40	2EP	2MP
		15	0,75EP		60	3EP	3MP
		20	1EP	1MP	80	4EP	4MP
		25	1,25EP				



## EP/ MP BLANK PANELS WITH VENTILATION SLOTS

- For closing open spaces in EP / MP instrument racks.
- Aluminium front panel with fixing screws.

Blank Panel 33 <mark>S</mark> .BB 0.202											
S	System	BB	Width								
3	EP	10	0,5EP		40	2EP	2MP				
6	MP	20	1EP	1MP	60	3EP	3MP				
		30	1,5EP	1,5MP	80	4EP	4MP				

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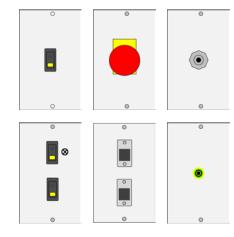
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# EP/ MP COMPENSATING PANEL WITH EQUIPMENT

• The EP / MP racks have left and / or right sided a compensating panel which can be equipped with listed modules.

Compensatir	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.

En	nergency Off Button or Switch 32	2.100	N E 2
N	Туре	Е	Installation
0	Emergency Off with Key	0	horizontal (1KP)
1	Emergency Off	5	vertical (2KP)
2	Emergency Off with Collar and Key		(only Emergency
3	Emergency Off with Collar		Stop)
5	Illuminated Switch, 2poles		
6	Black Emergency Stop		
7	Black Emergency Stop with Key		

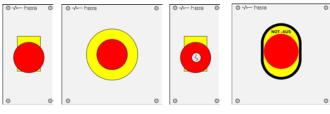
EP / MP PANEL WITH EMERGENCY OFF

• Emergency off button with two opener contacts, unwired.

EP Panel wit	h 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 Emergeny Off Button

Emergency Off (0,5MP)
Emergency Off with Key (0,5MP)
Black Emergency Stop (0,5MP)
Black Emergency Stop with Key (0,5MP)
Emergency Off with Collar (0,5MP)
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.





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 postion (for ENERGY extensions).
- Completely wired with input terminal and output coupler.



322.110.102 1phase, RCD type A (8KP)

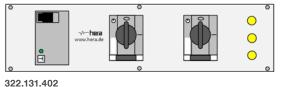


322.132.202 3phase, no RCD with black key button (6KP)



332.237.202 3phase, RCD type B (1EP)

#### Example for Mains Panel with Emergency Off Cat. 4:



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	2	
P Phases	TRCD	N Emergency Off	E Tripping Current
1 1phase 230V	<b>0</b> Type A (8KP)	0 Emergency Off with Key	0 horizontal / 12,5 - 16A
<b>3</b> 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	e with Safety Relay cat. 4 (4KP)	6 Black Emergency Stop	7 vertical / 9 - 12,5A
		<b>3</b> no Emergency Button (- 1KP)	
		4 Emergency Off, cat.4 (+ 1KP)	
322.1xx.xx8 M	lains Panels 120V Versions	without Emergency Button	

EP/MP Mains Panel	33 S .2 P T . N	02	
S System	P Phases		N Emergency Off
<b>2</b> EP	1 1phase 230V	0 no RCD	0 no Emergency Button
5 MP	<b>3</b> 3phase 400V	5 Type A	1 Emergency Off Button
		7 Type B	2 Emergency Off Button with Key
332.200.402: Module wi	th Safety Relay cat. 4 (0,5EP)		3 Black Emergency Stop Button with Key
335.200.402: Module wi	th Safety Relay cat. 4 (0,5MP)	)	6 Black Emergency Stop Button
			4 Emergency Off cat. 4

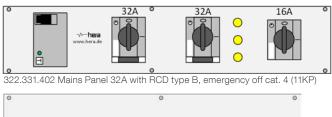


#### KP/EP/MP MAINS PANEL 32A

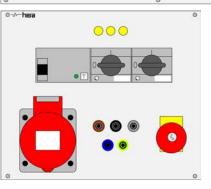
- 3x Voltage control lamps.
- Motor circuit breaker 32A and 16A with undervoltage release.
- Residual current device (RCD) 40A / 30mA type A.
- or: RCD 40A / 30mA type B (recommended for equipment where residual current might have smooth DC portion).
- Emergency off button effecting the undervoltage re-. lease 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.

32A 16A

322.330.102 Mains Panel 32A with RCD type A (10KP)







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

0

1

2

6

3

#### RCD Т

0

1

#### **Emergency Off** Ν

Emergency Off Button with Key

Black Emergency Stop Button

Black Emergency Stop Button with Key

Emergency Off Button



- 0 horizontal
- vertical 5

2 no RCD (8KP)

Type A (10KP)

Type B (10KP)

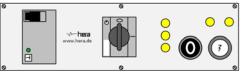
322.100.402:

- 4 KP Module with Safety Relay cat. 4
- no Emergency Button (- 1KP) 4
  - Emergency Off cat. 4 (+ 1KP) Note: without Emergency Button
- 33 S .43 T . N 0 A EP/MP Mains Panel 32A S System RCD **N** Emergency Off Т **A** Feature 2 EP no RCD no Emergency Button with CEE 32A + Safety Jacks 0 0 2 5 MP 5 Type A Emergency Off Button with 32A Terminal 1 4 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)



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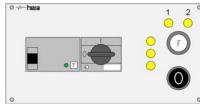


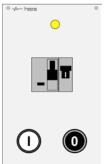


322.287.202 3phase with MCB B16, RCD type B, 2-level activation (8KP)



KP Mains Panel with Contactor 322.2 P T . F E 2





335.275.102 1phase with MCB B16, RCD type A, 1-level activation (1MP)

332.257.202 3phase with CB, RCD type B, 2-level activation (1EP)

P Phase	TRCD	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 Versi	ons

#### EP/MP Mains Panel with Contactor 33 S.2 P T. F 02

2       EP       2       1 phase, without Circuit Breaker       0       no RCD       0       1-level with On /Off Button         5       MP       4       3 pahse, without Circuit Breaker       5       Type A       1       1-level with Key-On / Off Button         5       1 phase, CB + UVR for Emergency Stop       7       Type B       2       2-level with Key-On / Off Button         6       3 phase, CB + UVR for Emergency Stop       7       Type B       2       2-level, for Remote Control (no Buttons)         7       1 phase MCB B16       5       2-level, for Remote Control (no Buttons)	S System	P Phase	TRCD	F Activation
51phase, CB + UVR for Emergency Stop7Type B22-level with Key-On / Off Button63phase, CB + UVR for Emergency Stop41-level, for Remote Control (no Buttons)	<b>2</b> EP	2 1phase, without Circuit Breaker	0 no RCD	0 1-level with On /Off Button
63phase, CB + UVR for Emergency Stop41-level, for Remote Control (no Buttons)	5 MP	4 3pahse, 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
7 1phase MCB B16 5 2-level, for Remote Control (no Buttons)		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		8 3phase MCB B16		

# KP/EP/MP BENCHCONTROL EASY I/O

In trainee benches integrated compact controlller, which is connected by autarcic LAN to a BenchControl Central and allows to switch the connected outputs.

- 4x relay outputs, flexibly assigned e.g. for activation in steps . (low - / mains voltage), up / down of retractable instrument racks, on/off for soldering fume extration or soldering station...
- 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.
- 4x programmable buttons (can be completely deactivated).
- Ethernet-Interface for the Connection to BenchControl Central.

#### **BenchControl EASY I/O** 601.100.000 BenchControl EASY (rear sided integrated) 621.100.000 BenchControl EASY I/O (4KP) vertical 631.100.000 BenchControl EASY I/O (0,5EP)

651.100.000 BenchControl EASY I/O (1MP)

64 Bit ReadOnly in 125kHz system (EM4100, EM4102). Administrator app for adding / deleting RFID tags (cards,

Admin card for the programming of more RFID tags.

Max. 250 programmable cards or chips.

chips, etc.) via rear sided USB interface.

Output relays, 3x status led and buzzer.

RFID Activation Module 125kHz

Incl. 2 cards.

322.100.802

332.086.102

335.086.102.

930.387.800

# KP/EP/ MP RFID ACTIVATION MODULE 125KHZ Q-A-hera hera

# KP/EP/ MP RFID ACTIVATION MODULE MIFARE 13,56MHZ

- Max. 50 programmable cards or chips.
- 13,56MHz; MIFARE® Classic, MIFARE® DESFire EV1, EV2

RFID Module 125kHz (3KP)

RFID Module 125kHz (0,5EP)

RFID Module 125kHz (1MP)

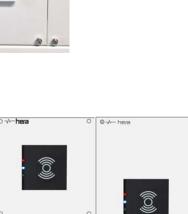
Transponder Chip wiith Ring for Key

- Compatible with the RFID locks in containers (chapter 07) and cabinets (chapter 08).
- Programming via master card (to be ordered seperately).
- Output relay, status-LED and buzzer.

RFID Activation MIFARE 13,56MHz					
322.087.102	RFID Module 13,56MHz (3KP)				
332.087.102	RFID Module 13,56MHz (0,5EP)				
335.087.102.	RFID Module 13,56MHz (1MP)				
301.087.102	Master Card Set (Master - Service Card)				







930.387.800







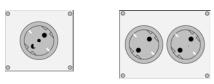


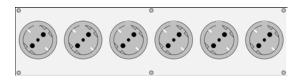


# KP SOCKET PANEL, NO SWITCH (TYPE F)

- 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						
Α	No. of	Socke	ets		Е	Position
1	2KP	4	6KP		0	horizontal and
2	3KP	5	8KP			vertical right
3	5KP	6	9KP		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					
Α	Number o	f S	ockets	Е	Position
1	2KP	4	7KP	0	horizontal and
2	4KP	5	8KP		vertical right
3	5KP	6	10KP	5	vertical left

# KP DIDACT SOCKET MODULE

- 3x 4mm jacks for 3phase output (L1, L2, L3).
- 3x PE sockets, type F, 45° positioned for angled plugs.
- 2x 4mm safety jacks (N, PE).
- With wire harness and couplers.
- Other socket types on demand.

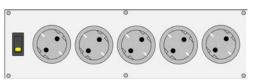
#### KP Didact Socket Modul

928.142.400	for left ENERGY Extension (7KP)
928.148.500	for right ENERGY Extension (7KP)





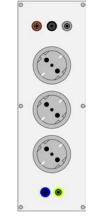












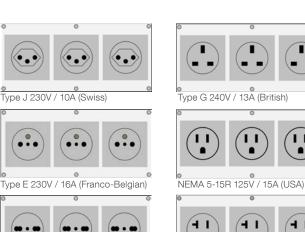




NEMA 6-20R 250V / 20A (USA)

# 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 seperate terminal and not connected to the mains panel.
- Other international sockets on demand!



0

Type L 230V / 10A (Italian)



Sockets with Flap

#### International Socket Panels 323.0 A S . L E F

A Sockets, No.	S Switch	L Туре	E Position F Version
1 2KP	0 no Switch	2 Type F with Flap	0 horizontal 2 Standard
<b>2</b> 3KP	1 with Switch	<b>3</b> Type J No. 23 (16A) - Swiss	5 vertical 6 IT (red)
3 5KP		4 Type J No. 13 (10A) - Swiss	
<b>4</b> 6KP		5 Type E 230V / 16A - Franco/ Belgian	
5 8KP		6 Type L 230V / 10A - Italian	928.047.700: 4x Type I, vertical (6KP), Chinese
6 9KP		7 Type G 240V / 13A - British	<b>928.103.400:</b> 1x Type D + 6A CB, Indian (5KP)
		8 NEMA 5-15 125V / 15A - USA	
		9 NEMA 6-20 250V / 20A - USA	Other types on demand!

## 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 seperate terminal clamp.

IT Sockets

23.xxx.xx6



# KP PANEL WITH EQUIPOTENIAL BONDING

- Module with jack for equipotential bonding POAG-ID6.
- Wired to the PE of the terminal clamp (optionally unconnecte wire with ring cable shoe for external earth connection.
- With connecting cable and lab plug.

KP Panel with	Equipotential Bonding
321.300.200	Panel with Equipotential Bonding POAG (1KP)
331.300.200	Panel with Equipotential Bonding POAG (0,25EP)
335.300.200	Panel with Equipotential Bonding POAG (0,5MP)
321.300.000	Lab Plug POAG M6 with Color Code
321.300.100	100cm yellow / green Lab Cable



00

Lab Plug

321.300.100 Lab Cable

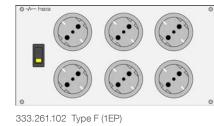


## EP/ MP SOCKET PANELS WITH SWITCH

- 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. •

4

Other types on demand! •



8

11

NEMA5-15

USA





9

4.1

NEMA6-20

USA







6

#### Examples: EP/ MP Socket Panels with Switch





33 S. AA1.1 D 2

333.221.172 (1EP)





S System	AA pcs.
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

7

Type G

British

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 **33**×.×××.××**3**



# EP/ MP SOCKET PANELS WITHOUT SWITCH

5

- Sockets type F with protective earth, 45° positioned. •
- International sockets with protective earth and mounting • frame.
- With wire harness and couplers. •

4

Other types on demand!

D Steckdose

٢ ٢

(0,25EP)

Type J Туре Е Type L Type G NFMA5-15 NFMA6-20 Swiss Franco/Belgian Italian British USA USA Examples: EP/ MP Socket Panels without Switch 333.031.102 333.231.102 (1EP) 333.431.102 (2EP) 333 131 102 (0,5EP) 33 S . A 31.1 D 2 D Type S System **A** Version 3 EP 0 2x Sockets (0,25EP) 0 Socket Type F Socket with Flap, Type F 6 MP 4x Sockets (0,5EP, Intern. 0,75EP) 2 1 2 3x Sockets (1EP / 0,5M) 3 Socket Type J, No. 23 (250V / 16A) 6x Sockets (1EP / 1MP) 4 Socket Type J, No. 13 (250V / 10A) 3

333.331.102 (1EP)

4 6x Sockets (2EP)

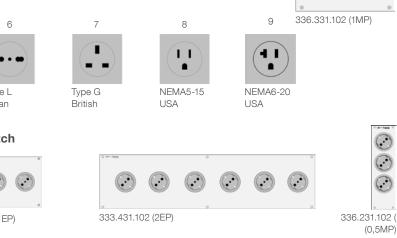
930.411.800: Autotransformer 1725VA 240V - 110V with 13A fuse (0,5EP)

930.467.400: Autotransformer 110V - 240V (0,5EP)

IT Sockets **33**×.×××.××**3** 

(0,5MP)

299



Socket Type E 230V / 16A

Socket Type L 230V / 10A

Socket Type G 240V / 13A

USA NEMA 5-15 125V / 15A

USA NEMA 6-20 250V / 20A

5

6

7

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9



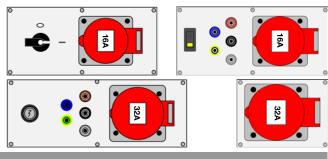


<ul> <li>AC MODULE WITH SA</li> <li>4mm safety jacks.</li> <li>Optionally with illuminated switch, with downstream contactor.</li> <li>With wire harness and couplers.</li> </ul>			
AC Module with Safety Jacks 3	23.5 <mark>PS</mark> .002		
РЅ Туре			
00 PE Jack green/yellow (1KP)	11 1phase / with Switch (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)			
<ul> <li>CP MODULE WITH 1PHA</li> <li>Blue CEE socket, straight 6h 3pole</li> <li>Optionally with illuminated switch, downsteam contactor.</li> <li>Optionally with 4mm safety jacks (I</li> </ul>	s 230V / 16A. key-switch type with		
Module with 1phase CEE Socket 323.10	<mark>S.B</mark> 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) 2.1 with Key Switch / with Jacks (5KP) 1.1 with 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 downsteam contactor.
- or: 3poles rotation switch. •
- Optionally with 4mm safety jacks • (L1, L2, L3, N, PE).
- With wire harness and couplers. •



323.1 VW.B02 **V** Туре h 3 16A ch (3KP)

5 32A

W	Switch
0	no Switc

- 1 Illuminated Switch (4KP)
- 2 Key Switch (5KP)



6

Rotation Field Selector (5KP) (right / off / left)



**B** Jacks

no Jacks

with Jacks (+ 1KP)

0

1





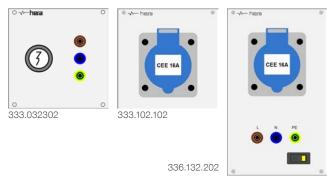






# EP/ MP MODULE WITH 1PHASE CEE SOCKET

- Blue CEE socket, straight 6h 3poles 230V / 16A.
- Optionally with illuminated switch, key-switch type with downsteam contactor.
- Optionally with 4mm safety jacks (L, N, PE).
- With wire harness and couplers.



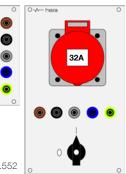
Module with 1phase CEE Soc	ket 33 <mark>S</mark> .A	A2. W 02	
S System	АА Туре		W Switch
<b>3</b> EP	00 PE Jack (0,25EP / 0,5MP)	13 Jacks and CEE (0,5EP / 1MP)	1 no Switch
6 MP	03 Safety Jacks (0,25EP / 0,5MP)	23 Jacks and CEE (1EP)	2 with Switch
	10 CEE (0,5EP / 1MP)		3 with Key-Switch

# EP/ MP MODULE WITH 3PHASE CEE SOCKET

- Red CEE socket, straight 6h, 5poles 400V.
- Optionally with illuminated switch, key-switch type with downsteam contactor.
- or: 3poles rotation switch.
- Optionally with 4mm safety jacks (L1, L2, L3, N, PE).
- With wire harness and couplers.







336.352.552

Module	with 3phas	e CE	E Socket	33 S . AA 2.	w c 2						
S	System	AA	Туре			W	Switch			С	Current
3	EP	05	Jacks (0,25EP / 0,5MP)	35 Jacks and CEE	(0,5EP / 1MP)	1	no Switch	3	with Key-Switch	0	16A
6	MP	30	CEE (0,5EP / 1MP)	45 Jacks and CEE	(1EP)	2	with Switch	5	with Rotation Switch	5	32A
						6	Rotation Field Se	elect	or (right / off / left)		

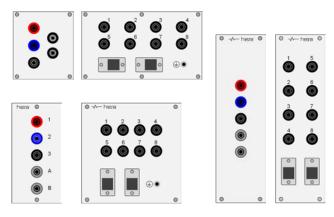




# KP/EP/MP MODULE WITH SELECTIVE POLES

- 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.
- Keystone adapter for the modular acceptance of:
  - 330.860.100 BNC jacks
  - 330.860.300 antenna jacks
  - 330.860.100 RJ45 Adapter Cat. 6
- NOTE: Keystones are not included, more types on page 307.

KP Se	lective Poles	323.8 <mark>A</mark> 0.0	E	2
Α	Туре		E	Position
0	5x Jack (2KP)	(	0	horizontal
2	8x Jack / 2x Keystone Ac	lapter (3KP)	5	vertical



EP/MP Selective Poles		33 <mark>S</mark> .850. A 02
S System	Α	Туре
<b>3</b> 0,25EP / 0,5EP	1	5x Jack
6 0,5MP	3	8x Jack / 2x Keystone Adapter

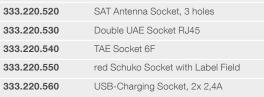
# KP/EP/MP CAVITY BOX

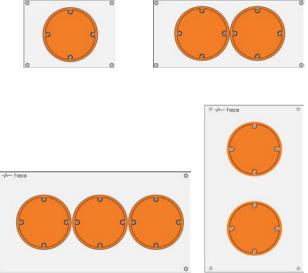
• Module with cavity box for the flexible equipment with installaton components.

KP Cavity Box			321.1 A	0.002		
Α	No. of Cavit	ies				
1	3KP	2	5KP	3	7KP	

EP/MP Cavity Box	33 <mark>S</mark> .BB0.102
S System	BB Width
<b>3</b> EP	12 1x Cavity Box (0,5EP)
6 MP	22 2x Cavity Box (1EP / 1MP)
	23 3x Cavity Box (1EP)

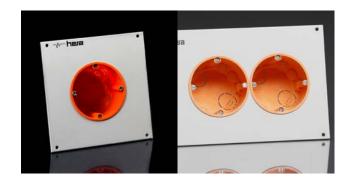
# Equipment for Cavity Box333.220.500Cover, 1fold333.220.502Cover, 2fold333.220.510TV Antenna Socket, 2 holes333.220.520SAT Antenna Socket, 3 holes222.020.520Double LME Socket B M5





333.230.102

336.220.102





# KP/EP/MP MODULE WITH CABLE INSERT

• Module with plastic cable grommet 60mm and clipped cover segment.

Module with Cable Inserts			ts	32 <mark>S</mark> .210. <mark>F</mark> 02
S	System	F	Color	
1	2KP	0	light grey	
3	0,5EP	1	anthracite	
5	1MP			



# KP/EP/MP MODULE WITH CABLE GLAND

• Module with cable gland M20 or/ and M25.

Мо	dule with Cable	Glan	ł	S	Α
S	System	F	Types		
1	1KP	1	1x M20		
3	0,25EP	2	1x M20 + 1x M25		
5	0,5MP				



# KP/EP/MP MODULE WITH CONTINUITY TESTER

High-ohmic electric continuity test, poled:

- Resistance range: 0...200kΩ 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:

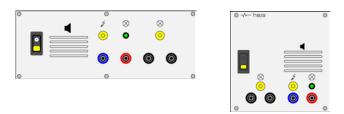
- Signal lamp for indication.
- 4mm safety jacks for connection.
- Illuminated 2poles switch for central on /off.

	Module with Conti	nuity Tester
	327.100.002	6KP horizontal
	327.100.052	6KP vertical
	334.121.602	0,5EP
	337.121.602	0,5MP

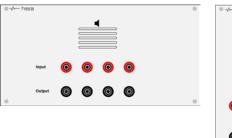
# EP/MP MODULE WITH TEST SPEAKER

- Test speaker 10W / 8Ω.
   Transmission range: 130-20.000Hz.
- Upstream transmitter for impedance matching. Transmission range: 40 - 20.000Hz. Primary winding: 2kΩ / 4kΩ / 8kΩ / 16kΩ. Secondary winding: 4Ω / 8Ω / 16Ω.
- 4mm safety jacks for connection.

Module with Test Speaker				
334.090.302	1EP			
337.090.302	1MP			











# KP/EP/MP MODULE WITH ISOLATING TRANSFORMER

325. AAA .0 E 2

**E** Position

0 horizontal

5 vertical

- 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. .

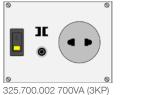
KP Module Isolating Transformer

115VA / 0,5A (5KP)

700 700VA / 3A (3KP)

AAA Type

115





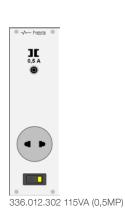
30

333.012.302 115VA (0,5EP)





EP/MP Module	e Isola	ating Transformer 33 <mark>S</mark> . AAA.302
S System	AAA	Туре
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	12	OV Version
007.777.000	12	







KP Module with Univeral Socket and Isolating Transformer 115VA



EP Module with Universal Socket and Isolating Transformer 115VA

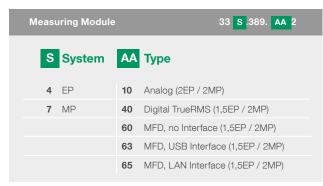
700VA Isoltating Transformer and Inrush Current Limiter

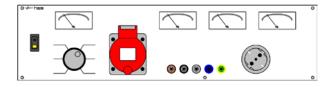


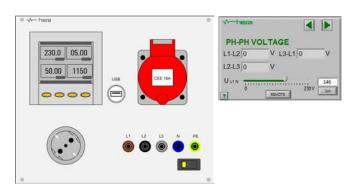
#### EP/MP MEASURING MODULE

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, staight 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.







#### 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: ±0,2%.
- Phase current TRMS (calculated current of neutral); accuracy: ±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: ±0,5%.
- Frequency (frequency measurement of measured voltage); accuracy: ±0,05%.
- High and Low value of the acutal 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 apparant power (part and total counter with programmed tariff functions).
- Hour counter (total- and service hours, programmable).





## 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



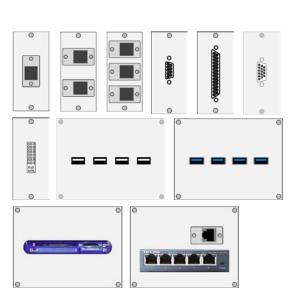
#### SSS System AAA AAA Type

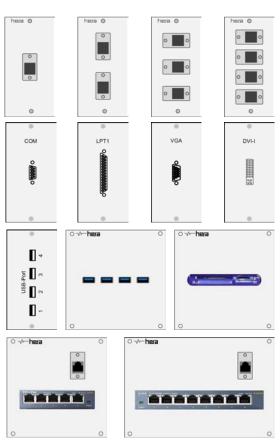
333	EP	810.002	1x Keystone Adapter (0,25EP/0,5MP)		
336	MP	820.002	2x Keystone Adapter (0,25EP/0,5MP)		
		830.002	3x Keystone Adapter (0,25EP/0,5MP)		
		840.002	4x Keystone Adapter (0,25EP/0,5MP)		
		803.102	1x Sub-D 9poles Plug for RS232 (0,25EP/0,5MP)		
		803.302	1x Sub-D 25poles Socket for LPT (0,25EP/0,5MP)		
		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		
330.8	302.005		etwork Switch 5-Port, max. 1000 Mbit/s with Power 00x98x25mm (LxWxH)		
330.8	0.802.008 Gigabit Network Switch 8-Port, max. 1000 Mbit/s with Pow Supply 158x101x25mm (LxWxH)				
330.8	302.016	0	etwork Switch 16-Port, max. 1000 Mbit/s with Power 94x180x44mm (LxWxH)		
330.8	302.024		abit Network Switch 24-Port, max. 1000 Mbit/s with Power ply 280x180x44mm (LxWxH)		

















#### **KEYSTONE MODULES**

- The Keystone system consists of an universal Keystone • adapter for snapping-in a Keystone module.
- The Keystone modules can be variably exchanged if • other connector is required.
- The Keystone modules can be equipped with cables in • different length.

Keystone Moc	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 Carging 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	330.840.300	mini Display Port female > male with cable			
	(F=0: black; 1: red; 2: green; 3: yellow; 4: blue)	330.850.100	3,5mm Jack female > female gold-plated			
330.810.400	RJ45 female > LSA (Insul. displ.) Cat.6 shielded	330.850.2F0	Cinch female > Cinch female (F=0: yellow; 1: red; 2: white)			
330.820.100	Optical Fibre LC Duplex female > female	330.860.100	BNC female > BNC female black			
330.820.200	Optical Fibre SC Simplex female > female	330.860.200	F female > F female (SAT Antenna)			
330.830.100	USB 2.0 A-female > B-female	330.860.300	IEC female > F female (SAT Antenna)			
330.830.300	USB 3.0 A-female > B-female	330.860.400	IEC male > F female (SAT Antenna)			













330.800.000

330.810.100

330.810.310

330.810.400

330.820.100



330.830.100



330.810.200

330.860.200





330.820.200



330.830.600







330.840.100

330.840.300





330.850.210









330.860.300 330.860.400







#### 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!



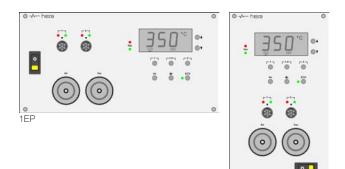


LCD Soldering Station					
	327.020.002	4KP vertical			
	334.154.103	0,5EP			
	337.154.103	1MP			
	960.010.019	5x Soldering Tips (lead-free soldering)			

# 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.









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**

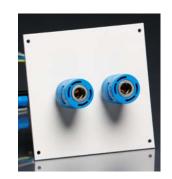
	323.710.002	Hose Coupler 6/4 (1KP)
	323.711.002	Hose Coupler 8/6 (1KP)
	323.712.002	Quick Release Coupler NW5 (1KP)
	323.713.002	Quick Release Coupler NW7,2 (1KP)
	323.720.002	with closing valve for hose 6/4 (3KP)
	323.721.002	with closing valve for hose 8/6 (3KP)
	323.722.002	with closing valve NW5 (3KP)
	323.723.002	with closing valve NW7,2 (3KP)

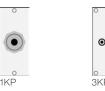
# KP/EP/MP PRESSURED AIR CONTROL

- 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						
В	Pressure	Α	Outlet	Е	Position	
1	0 - 3 bar (6KP)	0	6/4 Hose Coupler.	0	horizontal	
0	0 - 10bar (6KP)	3	8/6 Hose Coupler.		vertical	
		5	NW5 Coupler with 8/	osing		
		7	NW7 Coupler with 8/	6 Ho	osing	









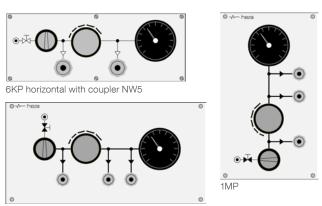


7.2



#### 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)



1EP with coupler for 6/4 hose

#### EP/MP Pressured Air Control 33 S .26 A . B 02

S System	Α	A Outlet		Position
<b>4</b> 1EP	2	6/4 Hose Coupler.	1	0 - 3bar
7 1MP	1	8/6 Hose Coupler.	2	0 - 10bar
	5 NW5 Coupler with 8/		sing	
	7	NW7 Coupler with 8/6 Ho	sina	





#### KP/EP/MP R-DECADE

- 8x decade switches with precision resistors from 1  $\Omega$  to 10 M  $\Omega.$
- 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			

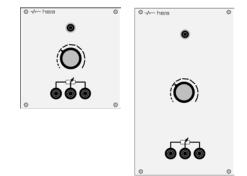




# KP/EP/MP LOAD RESISTOR

- Stepless adjustable potentiometers 50W.
- Thermal fuse for overload protection.
- 3x 4mm safety jacks to tap the resistance.

Load Resistor 3 <mark>S</mark>			3 <mark>SS</mark> .00	)5.	A 02
	SS	System		A	Туре
	24	3KP		1	0-10Ω / 2,2A
	34	0,5EP		2	0-100Ω / 0,7Α
	37	1MP		3	0-1kΩ / 0,2A
				4	0-10kΩ / 0,1A

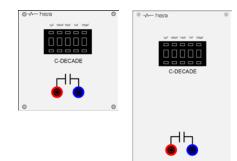






#### KP/EP/MP C-DECADE

- 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

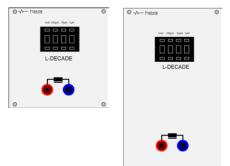
- 4x decade switches with precision coils 1μH, 10μH, 100μH and 1mH.
- Max. voltage: 100V.
- 2x 4mm safety jacks to tap the inductance.

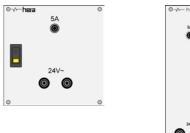
L-Decade	
324.441.302	3KP horizontal
334.441.302	0,5EP
337.441.302	1MP

# 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			



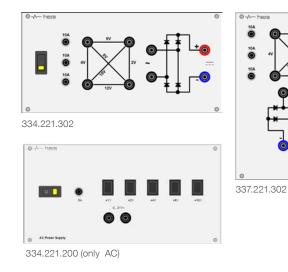




# EP/MP AC EXTRA LOW VOLTAGE 1PHASE

- 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 1phase	33 S .221. A 02
S System	АТуре
<b>4</b> 1EP	<b>3</b> 2, 4, 6, 8, 10, 12V / 10A
<b>7</b> 1MP	<b>1</b> 6, 12, 18, 24, 36, 42V / 3A
334.221.200 5 Switches for 03	B1V/ 5A in 1V steps (1EP)



# 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.

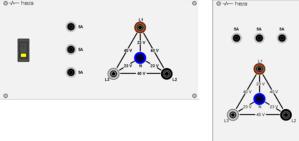
1MP

Output at 4mm safety jacks.

AC Extra Lo 334.223.002 337.223.002

Illuminated s central on/ c

switch with downstream contactor for off.	
v Voltage 3phase	
1EP	





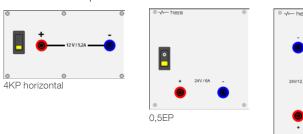


# KP/EP/MP MODULE WITH FIXED DC SUPPLY

KP	Module wit	h fixed DC	Supply 3	326.1	WW .1 E 2	4KP
W	N Type				E P	osition
05	5V / 12A	24	24V / 2,7	A	<b>0</b> h	orizontal
12			24V / 4,2			ertical
12	. 12 / 0,2/	i -				
EP/	MP Module	with fixed	IDC		33 S LI	
	_		_			
S	System	LLL.LL	L 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 / 12,5	ōΑ	148.042	48V / 4,2A
KP	Module wit	h fixed DC	Supply	320	6.2 <mark>WW</mark> .1 I	E 2 4KP
W	V Type			Е	Position	า
12	2 +/-12V / 1	,0A		0	horizontal	
15				5	vertical	
EP/	MP Module	with fixed	I DC Supp	oly	33 S.LL	L. LLL
S	System	LLL.LL	Туре			
	-					
3	0,5EP	212.032			5V / 6A	
6	0,5MP	224.022	+ 24V /	/ 2A +	5V / 6A	
KP	Module wit	h fixed DC	Supply	326.	3 WW .1 E	2 8KP
W	W Type			Е	Positio	าร
12	<b>2</b> 5V / 5A u	nd +/-12V /	1.0A	0	horizontal	
	5 5V / 5A u			5	vertical	
			0,071	Ű	Vortiour	
EP.	/MP Module	e with fixed	d DC Supp	oly	33 <mark>8</mark> .L	
S	System	LLL.LL	L Type			
3	0,5EP	312.012	2 +/- 12	V / 1A	+ 5V / 5A	
6	0,5MP	315.012	<b>2</b> +/- 15	V / 0,8	3A + 5V / 5A	A
	DC S	upply (KP)		الأشدد		

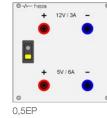
DC Supply (KP)

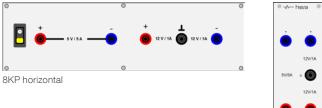
- Stabilized and shortcircuit proofed DC power supply, galvanically insolated.
- Overload -, overvoltage and overtemperature protected.
- Offset: approx. 2%
- Ripple: approx. 120mV p-p.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on /off.



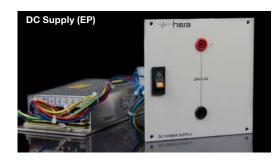












# KP/EP/MP REGULATED DC SUPPLY COMPACT 0...30V / 0...2A

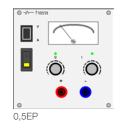
- Linear controlled, earthfree and shortcircuit proofed laboratory power supply.
- Ripple: < 1mV eff.
- Offset: < 0,05%.
- Potentiometer for voltage and current control and status LED.
- Output on 4mm safety jacks.
- Selector switch for voltage or current reading. analog: Moving iron class 1,5. digital: 4digit LED display, accuracy: 0,5% +/- 1digit.
- Illuminated 2poles switch for central on /off.
- With wire harness and couplers.

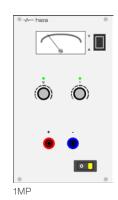
#### Regulated DC Supply Compact 0...30V / 0...2A

326.532.152	analog, vert. (9KP)	337.810.202	analog (1MP)
326.532.552		337.810.402	digital (1MP)
326.532.502	3 . , . (. ,	334.810.402	digital (0,5EP)
326.532.152		337.810.202	analog (1MP)









hera



# 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: ± 0,5% of voltage and current.
- Ripple: < 100mV<sub>ss</sub>
- Input: 100 264VAC, frequency: 50/60Hz.
- Output at 4mm safety jacks.
- Illuminated 2poles switch for central on/ off.

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 <1mV<sub>BMS</sub>.
- Output with 4mm safety jacks.
- Technical data, see lab power supply LINEAR 60W.

#### Fixed DC Voltages ±15V ±12V ±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<sub>ss</sub>.
- Shortcircuit proofed..
- Output 50Ω at BNC socket + 4mm safety jacks.

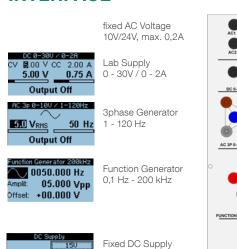
#### 3phase Generator 1 - 120Hz:

- 0 10V<sub>eff</sub> (L-N) / 0 17,3V<sub>eff</sub> (L-L) / 400mA.
- Shortcircuit proofed.
- Frequency: 1 120Hz adjustable in 1Hz steps.
- Output with 4mm safety jacks.

#### AC Voltages, fix:

- 24V/0,2A + 10V/0,2A (mains frequency).
- Protected by self-resetting fuses.
- Output with 4mm safety jacks.

ICOM Didactic Supply			
610.800.301	15KP vertical		
620.800.301	15KP horizontal		
630.800.301	2EP		
650.800.301	3MP		







Display and Operation Panel with USB Interface







# 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



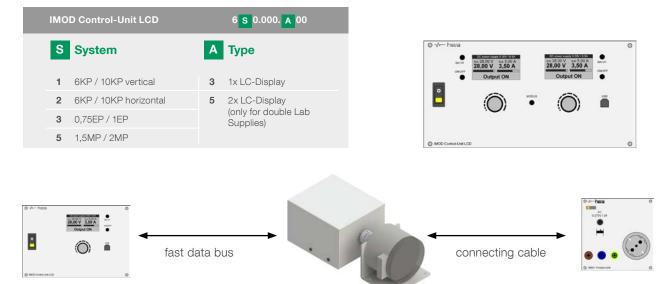


# KP/EP/MP IMOD CONTROL-UNIT LCD

- 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.







Control-Unit LCD

Function-Unit

**EP/MP** Connection-Unit

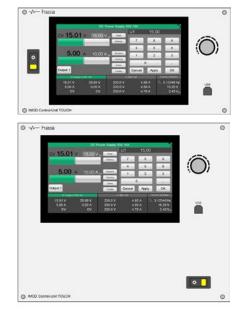




#### EP/MP IMOD CONTROL-UNIT TOUCH

- 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 (primary for 1- and 3phase).
- With wire harness and couplers.

IMOD Control-Uni	t 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
630.001.100	IMOD Control-Unit TOUCH Remote (1EP)
650.001.100	IMOD Control-Unit TOUCH Remote (2MP)

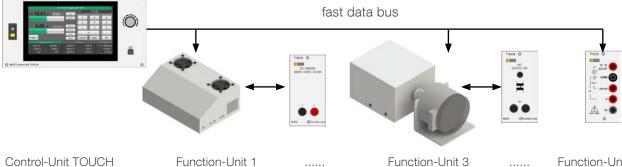


#### **3phase Adapter for IMOD Control-Unit**

- Module with 16A contactor to disconnect all phases incl. N when switching off.
- Required in case of phase distribution or 3phase • AC sources.

#### **Remote Version:**

- No illuminated switch for on/ off.. .
- Rear sided terminal clamp with circuit breaker, • prepared for seperate continous voltage.



Function-Unit 1

Function-Unit 3

Function-Unit 5





#### KP/EP/MP IMOD FUNCTION-UNIT: AC SOURCE 1PHASE

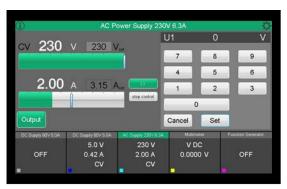
Consisting of KP/EP/MP module for bench rack integration and a completely housed Function-Unit, which can be located with respect to its dimensions in the instrument rack or in an underbench rack.

#### **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: ± U<sub>max</sub> / 153.

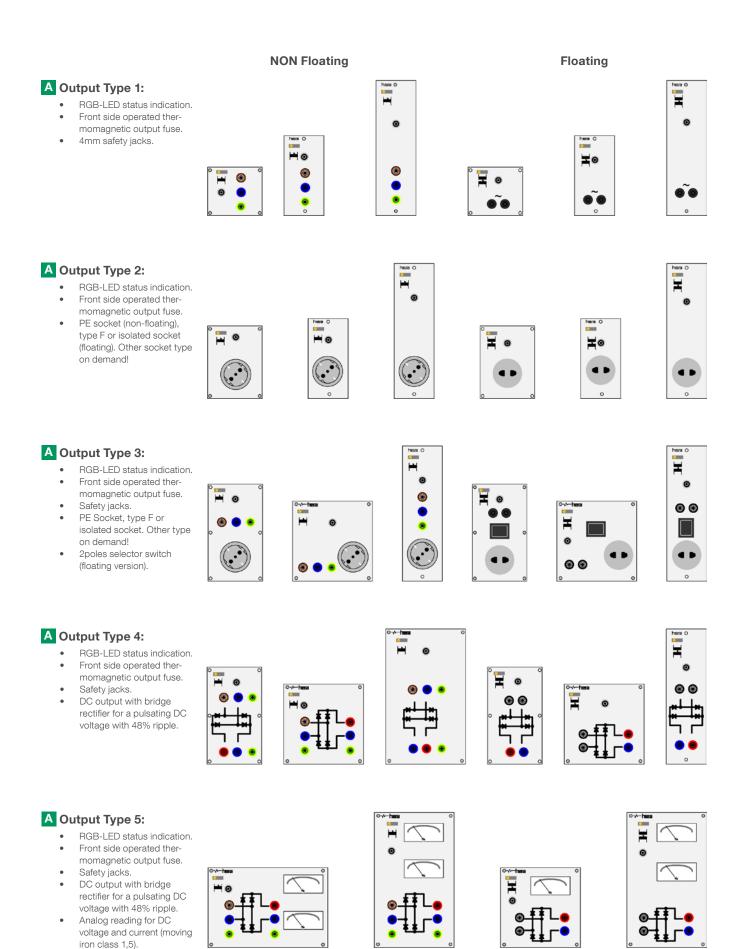






ІМО	D Function-Uni	it: AC Source 1phase 6 S 2. A LL.LLL				
S	System	A Output	LL.LLL	Туре		
1	KP vertical.	1 AC: Safety Jacks	23.010	0-230V / 1A	03.045	0-30V / 4A floating
2	KP horizontal.	2 AC: PE-Socket or Isolated Socket	23.030	0-230V / 3A	06.035	0-60V / 3A floating
3	EP	3 AC: Jacks and PE or Isolated	23.060	0-230V / 6A	27.015	0-270V / 1A floating
5	MP	4 AC/DC: Jacks and Bridge Rectifier	23.100	0-230V / 10A	27.035	0-270V / 3A floating
		5 AC/DC: Jacks, Bridge Rectifier and DC Reading	23.140	0-230V / 14A	27.055	0-270V / 5A floating
					27.105	0-270V / 10A floating
						0-270V / 12A floating
					30.105	0-300V / 10A floating
				L1-L2 3phase	27.165	0-270V / 16A floating
xxx.	xxx.x82 1	20V Versions	supply re	equired!	30.165	0-300V / 16A floating







## 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: ± U<sub>max</sub> / 153.

#### Function-Unit Measuring Module, 3phase:

• 6x TrueRMS converters (3x voltage / 3x current) with 12bit resolution.



Note: only with Control-Unit TOUCH.

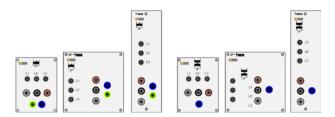


MOI	D Function-Unit	: AC Source 3phase 6 <mark>S</mark> 3. A LL.LLL				
S	System	A Output	LL.LLL	Туре		
1	KP vertical	1 Safety Jacks	40.010	0-400V / 1A	40.015	0-400V / 1A floating
2	KP horizontal	2 CEE Socket 5poles	40.030	0-400V / 3A	40.035	0-400V / 3A floating
3	EP	3 Jacks and CEE Socket	40.060	0-400V / 6A	45.055	0-450V / 5A floating
5	MP	4 Jacks and Bridge Rectifier	40.100	0-400V / 10A	40.105	0-400V / 10A floating
		5 AC/DC: Jacks and DC Voltage / Current Display	40.140	0-400V / 14A	40.145	0-400V / 14A floating
		6 AC/DC: CEE + Jacks and DC Voltage / Current Display			52.075	0-520V / 7A floating
		7 Motor Tester: Jacks			52.105	0-520V / 10A floating
		8 Motor Tester: Jacks and CEE				
IMOI S	D Function-Unit	: Measuring Module 3phase 6 <mark>S</mark> 3. A 00.160 A Output		Туре	-	-
1	KP vertical	1 AC: Jacks	5 AC/D	C: Safety Jacks a	nd DC Volta	ge / Current Display
2	KP horizontal	2 AC: CEE Socket 5poles	6 AC/DO	C: CEE + Jacks ar	nd DC Volta	ge / Current Display
2 3	KP horizontal EP	<ul><li>2 AC: CEE Socket 5poles</li><li>3 AC: CEE Socket and Jacks</li></ul>		C: CEE + Jacks ar Tester: Jacks	nd DC Volta	ge / Current Display



#### A Output Type 1 AC:

- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- 5x safety jacks (L1, L2, L3, N and PE). NON floating:
- floating 4x safety jacks (L1, L2, L3 and N).



#### A Output Type 3 AC:

- RGB-LED status indication.
- 3x front side operated thermomagnetic output fuses.
- CEE sockets 5poles red 400V / 6h.

A Output Type 5 AC/DC:

RGB-LED status indication.

current (moving iron class 1,5).

A Output Type 7 Motor Tester:

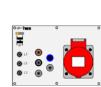
(U1, U2, V1, V2, W1, W2).

PE socket (only NON floating).

RGB-LED status indication.

- NON floating: 5x safety jacks (L1, L2, L3, N and PE).
- 5x safety jacks (L1, L2, L3, N and equip. bonding). floating:





3x front side operated thermomagnetic output fuses.

6-point rectifier for pulsating DC voltage (4,3% ripple).

3x front side operated thermomagnetic output fuses.

6x 4mm safety jacks arranged as motor terminal

Selector for star / delta and rotation field.

DC output: 2x safety jacks, analog reading for DC voltage and

AC outputs: 5x safety jacks (4x floating type).



#### 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 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.

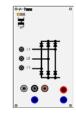


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#### A Output Type 6 AC/DC:

- 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.

H

- 6-point rectifier for a pulsating DC voltage (4,3% ripple).
- DC output: 2x safety jacks, analog reading for DC voltage and current (moving iron class 1,5).



#### 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.







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hera O 0

DC LINEAR 300W / 0-30V / 0-10A

#### KP/EP/MP IMOD FUNCTION-UNIT: DC 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 underbench 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).
- Resolution of measurements: 16 bit (65536 dots). .
- Ripple (at Ia = 50%): <0,7mV<sub>BMS</sub>.
- Set time (load step 10-90% la, at 50% Ua): <120µs. .
- External voltage protection: 100V / 50V (60W). .

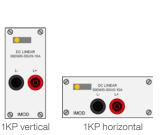
#### 2-Channel Lab Power Supplies:

The Control-Unit TOUCH easily allows to link 2 identical lab power supplies to one DC supply with 2 channels (LINEAR or EXTENDED RANGE).

#### Extra modes for IMOD DC Supply 2-Channel:

Standard: Two individual DC supplies seperately controlled.

- Tacking: DC supply 1 tracks DC supply 2 (master/ slave)
- Series: DC supplies in series for double voltage.
- Parallel: DC supplies in parallel for double current.











Graphical LCD DC Power Supply, 1 Channel



TOUCH Display 2-channel DC supply



IMOD Function-Unit: DC Power Supply LINEAR		6 S 6.10 L.LLL		
S	System	L.LLL	Туре	
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: DC POWER SUPPLY EXTENDED RANGE

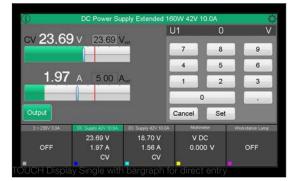
Consisting of KP/EP/MP module for bench rack integration and a completely housed Function-Unit, which can be located depending on its dimensions in the instrument rack or in an underbench rack.

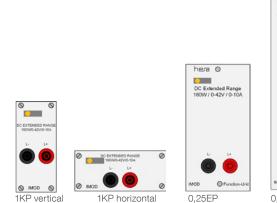
#### **Connecting-Unit equipped with:**

- RGB-LED for status indication.
- 2x 4mm safety jacks.

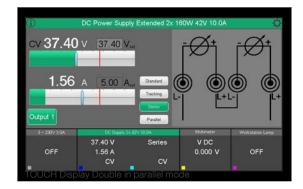
#### **Housed Function-Unit:**

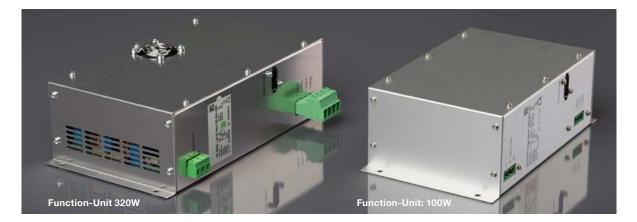
- Lab power supply, fanless up to 160W.
- Stability at 0-100% load: <0,8%.
- Stability at 10% mains alternation: <0,02%.
- Ripple: <5mV<sub>RMS</sub>.
- Set time 10-100% load: <1ms.
- Overvoltage protection: 0...46,2V.
- Accuracy: < 0,2%.
- Nominal values of current and voltage adjust one another so the max. power is not exceeded.











IMOD Function-Unit: DC Power Supply Extended Range 6 S 5.10 LLL 0

S	System	L.LL	Туре		
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 DC SUPPLY hera O

0,25EP (32A)

0

1KP (32A)

The system consists of the KP/ EP / MP Connecting-Unit for bench rack integration and interface to a high performance DC supply.

The IMOD interface with Connecting-Unit allows to locate the high performance DC supply conveniently under the table for keeping the instrument rack quite small. The power supply can be fully controlled with 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 plugs + 2x 4mm sense • safety jacks wired to the power supply max. 80A.
- max. 125A: 2x 6mm safety plugs + 2x 4mm sense safety jacks wired to power supply.

IMO	MOD Function-Unit: Interface Connection       6 \$ 5.200. A 00         S System       A Current				
S	System	Α	Current		
1	1KP (3KP) vertical	5	4mm jacks (max. 32A)		
2	1KP (3KP) horizontal	6	6/4mm plugs (max. 80A)		
3	0,25EP (0,5EP)	7	6mm plugs (max. 125A)		
-					

	Α	Current
ertical	5	4mm jacks (max. 32A)
orizontal	6	6/4mm plugs (max. 80A)
EP)	7	6mm plugs (max. 125A)

5 0,5MP (0,5MP)















299.540.000

6/4 Safety Plug (for 6mm high current jack and 4mm lab plugs) iack)

6mm Safety Plug (for 6mm high current 2x 6mm jack red / black)



# 19" HIGH PERFORMANCE DC 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),
- 5" Color TFT touch display and 2 rotary switches.
- Rear sided USB and LAN Connection.
- Dimensions: 483 x 89 x 470mm (WxHxD).



See cha	pter 11	for	technical	details
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High Perfromar	nce DC Supply 2HE 3000W	
365.300.061	3000W / 0 60V / 0 120A / 10mV <sub>RMS</sub>	
365.300.081	3000W / 0 80V / 0 120A / 10mV <sub>RMS</sub>	
365.300.201	3000W / 0 200V / 0 50A / 30mV <sub>RMS</sub>	
365.300.361	3000W / 0 360V / 0 30A / 30mV <sub>RMS</sub>	
365.300.501	3000W / 0 500V / 0 20A / 40mV <sub>RMS</sub>	
365.300.751	3000W / 0 750V / 0 10A / 50mV <sub>PMS</sub>	

High Perfroma	ance DC Supply 2HE 1500W	
365.150.061	1500W / 0 60V / 0 60A / 10mV <sub>RMS</sub>	
365.150.081	1500W / 0 80V / 0 60A / 10mV <sub>RMS</sub>	
365.150.201	1500W / 0 200V / 0 25A / 30mV <sub>RMS</sub>	
365.150.361	1500W / 0 360V / 0 15A / 30mV <sub>RMS</sub>	
365.150.501	1500W / 0 500V / 0 10A / 40mV <sub>RMS</sub>	
365.150.751	1500W / 0 750V / 0 6A / 50mV	



# 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.

617.000.000

627.000.000

637.000.000

657.000.000

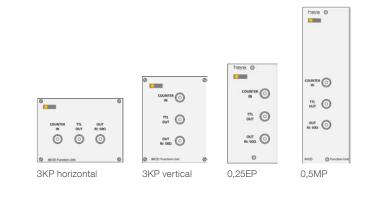
Frequency measurement: max. 50MHz.

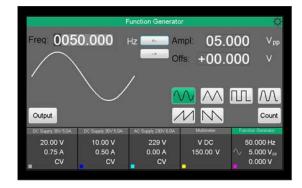
3KP (vertical).

0,25EP

0,5MP

3KP (horizontal).









# **KP/EP/MP IMOD FUNCTION-UNIT: MULTIMETER**

#### **Connecting-Unit with housed Function-Unit:**

- RGB-LED for status indication. •
- 5x 4mm safety jacks (Hz, A, μA/mA, COM, V/Ω/F/diode/ • continuity/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.
- Protection of current inputs. •
- Resistance: max. 50MQ. .
- Frequency: 100µHz 50MHz.
- Capacity: max. 5mF. •
- Other functions: diode tests, continuity test, temperature . measurement and high current measurement.
- 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			
604.001.300	Current Probe - Clamp Type			

#### 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:

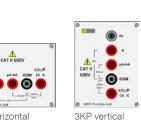
- Surface Temperature Sensor -190 ... +260°C
- Surface sensor with fixation hole
- Pt1000 class A
- Stainless steel sleeve 40mm, hole 4,5mm
- 2m cable with 4mm lab plug

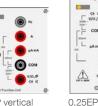


#### 604.000.300:

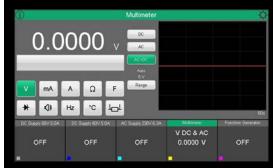
- Kapton Tape Temperature Sensor -190 ... +260°C
- fast reacting contact sensor. As the sensor is integrated in transparent kapton foil, it is perfectly suitable for different surfaces and e.g. underlaying positions.
- Pt100 class B kapton tape sensor
- Thickness approx. 1,4mm \_ 2m cable with 4mm lab plug

3KP horizontal











#### 604.001.300: Current Probe - Clamp Type for High Current Measurement max. 300A

- AC and DC current measurement for TRMS multimeter
- High accuracy 1%
- 50mA / 100mA resolution
- Automatic switch off for battery saving
- High band width DC..20kHz
- Transmission factors can be directly set in the IMOD multimeter menu
- Pushbutton for zero-adjustment
- Clamp width 25mm

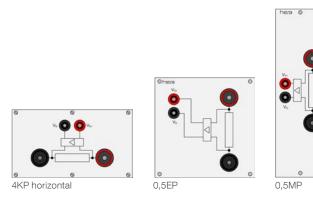


# KP/EP/MP IMOD FUNCTION-UNIT: HIGH CURRENT MEASUREMENT

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 FunctUnit: High Current Measurement 6 S 4.10 M.M 00					
S	System	M.M	Туре		
1	4KP vertical	0.5	max. 50A with 6/4mm sockets		
2	4KP horizontal	1.0	max. 100A with 6mm sockets		

# SET OF IMOD MEASURING CABLES

#### **Multimeter:**

3 0,5EP5 0,5MP

2x Safety Test Leads, 100cm2x Test Probes

#### Lab Power Supply:

2x Safety Test Leads, 150cm2x Safety Test Leads, 25cm2x Crocodile Clips

Set of IMOD Measuring Cables

299.000.10

#### 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 an individually housed functional unit:

### Fixed DC Voltages ±15V ±12V ±5V/1A

- Selector switch for the voltages and status indication.
- Shortcircuit proofed.
- Output with 4mm safety jacks.

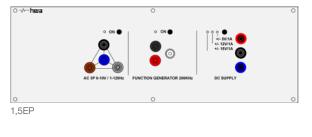
#### Function Generator 0,05Hz - 200kHz

- Waveforms: sinus, triangle, square, trapezium, saw tooth (rise and fall).
- Amplitude: 0...30V<sub>ss</sub>.
- Shortcircuit proofed..
- Output 50Ω at BNC socket + 4mm safety jacks.

#### 3phase Generator 1 - 120Hz:

- 0 10V<sub>eff</sub> (L-N) / 0 17,3V<sub>eff</sub> (L-L) / 400mA.
- Shortcircuit proofed.
- Frequency: 1 120Hz adjustable in 1Hz steps.
- Output with 4mm safety jacks.







3phase Generator 1 - 120 Hz and Fixed DC Supply ±15V ±12V ±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).

see catalogue chapter 3 for article Nos.







8KP vertical

3phase Generator 1 - 120 Hz

Function Generator

0,1 Hz - 200 kHz

Fixed DC Voltage

±15V ±12V ±5V/1A





# **INNOVATIVE & NETWORK-OPERATED** ROOM CONCEPT

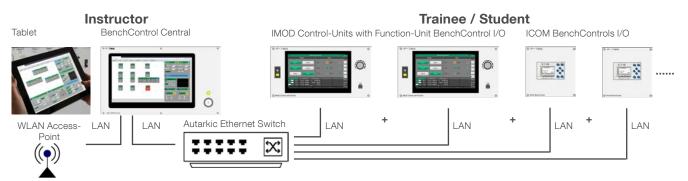
Innovative and flexible classroom concept, where all trainee benches are integrated in an ethernet networks and thus can be completely observed and operated centrally via hera BenchControl Central.

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:

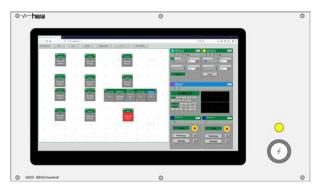
- Self sufficient (no PC required) central control for highest reliability.
- Economical, modular and flexible networks topology.
- Network-operated webserver solution for OS-independent utilization.
- Use of extra tablets for controlling the room is possible.



# EP/MP MODULE IMOD BENCHCONTROL CENTRAL

Self-sufficient (no PC required!) central control for remote operation and observation of all connected IMOD Bench-Controls I/O or ICOM BenchControl I/O.

- Powerful and fanless single-board computer with high resolution HDMI interface and fast LAN interface.
- KP & EP Module: HDMI and USB interface for the connection to an external touch monitor.
- MP Module: flush integrated 11,6" TFT display (1920x1080) with glass front and wide view angle and high precision capacitive multitouch display.
- Webbrowser basing control software with individually designable desktop presentation (IMODdesktop).
- On / Off switch with key and indicator lampl.
- KP modules with extra PE socket.





# IMOD FUNCTION-UNIT: BENCHCONTROL I/O

Integrated I/O module for the operation and observation of the complete workstation with following functions:

- 5x freely editable digital inputs for various applications:
  - Status report for emergency stop
  - Key or RFID activation
  - Status query for contactors and position switches.
- 1x digital input for E-stop with flying restart.
- 6x freely editable relay outputs for various applications: - Activation in steps (low -/ mains voltage)
- Activation in steps (low -/ mains voltage)
   Up and down for retractable instrument racks
- Activation of soldering station and soldering fume
- extractionActivation and control for selective poles (e.g. voltage provision from instructor bench)
- Activation of electric lock for container.
- The outputs are connected to the IMOD Function-Units (DC power supplies, AC sources, ...) for enabling and limit settings via BenchControl I/O.
- Interface for IMOD RFID reader.

IMOD Function-Unit: BenchControl I/O

601.000.000





# BENCHCONTROL I/O ADDITION: IMOD RFID READER

- Option RFID reader for the conneciton to the IMOD Function-Unit BenchControl I/O.
- 13,56 MHz; MIFARE® Classic, MIFARE® DESFire EV1, EV2
- Compatible to the RFID locks in chapter 07 (containers) and chapter 8 (cabinets).
- User-friendly and fast programming with IMODdesktop incl. personalization and rights adminstration.
- Visualization of the access data at the assigned Control-Unit and in user software IMODdesktop.



332

611.600.001	IMOD RFID Reader (3KP)
631.600.001	IMOD RFID Reader (0,5EP)
651.600.001	IMOD RIFID Reader (1MP)
302.087.102	Set (10x pcs.) RFID MIFARE Tags, grey











# IMODdesktop Software for IMOD Device Series

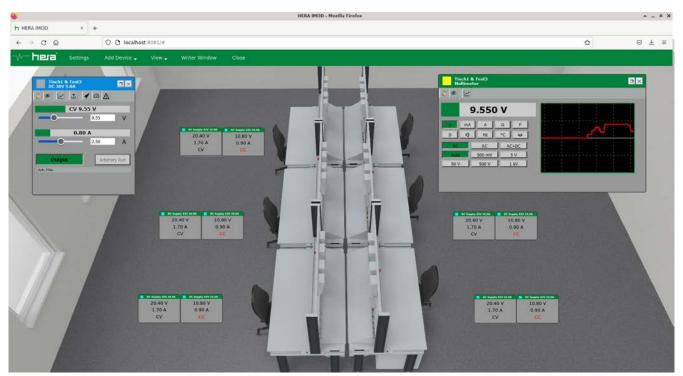
- Applicable as web server solution for the complete lab or as single license for individual benches.
- Browser client software for OS-independency, thus the software can be used on all devices (PC, notebook, tablet and smart phone).
- Graphical user interface in the same design and operating concept as IMOD Control-Unit TOUCH.
- Dimensions and background freely designable e.g. with classroom plan.
- Easy and intuitive handling (self-explaining).
- 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:**

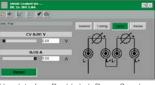
- Display of nominal values in digital numbers and analog bargraph.
- Value setting via slider or keypad.
- Switchable modes and outputs.
- Value setting for start and limit.
- Selection between four activation modes.
- Recording function for all actual values.
- Arbitrary generator for nominal value setting (matrix).

#### **Recorder Function:**

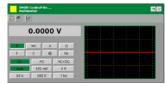
- Simultaneous measurement and presentation of more Function-Units, so they can be evaluated within the same time stamp.
- Settings for measured value calculation (min., max., average and last value).
- Selectable time base for long-term measurements.
- Data logging and further-processing as CSV table.

#### 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 enbabled.
- 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



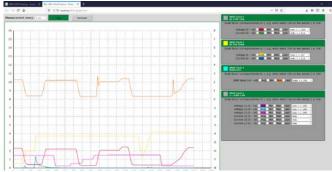
User Interface Function Generator

Jser Interface Multimeter

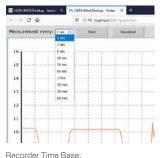
# CV 153 V CV 153 V Function-Unit Buttons:

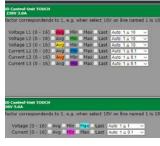
- control deactivated
- reading blinded-out
- recorder activated
- load arbitrary generator
- set start values
- set limit values
- set warning values





Multichannel Chart Recorder





adjustable time base and download of CSV table

Recorder 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

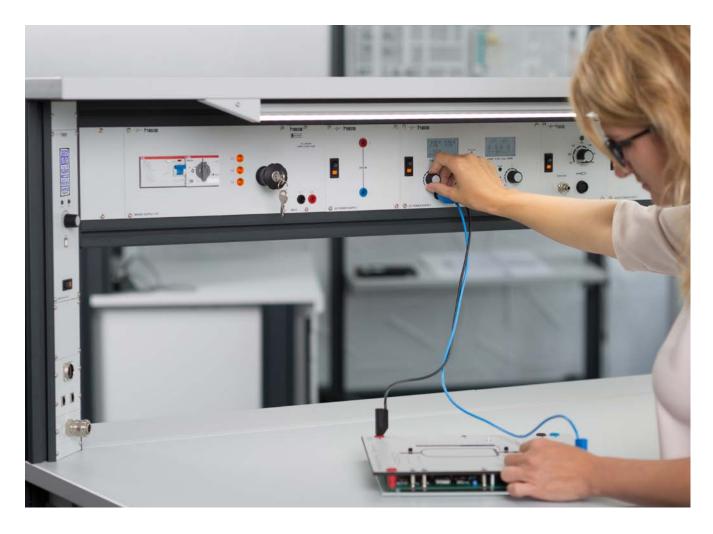
Choose your ideal laboratory power supply from two categories:

## Lab Power Supply LINEAR:

- Highly precise, linear controlled power supply with < 0,7mV ripple
- Power range between 60 300W

## Lab Power Supply EXTENDED RANGE:

- Powerful switchmode DC supply with < 5mV ripple
- Extended voltage and current range without exceeding maximum power





# 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.

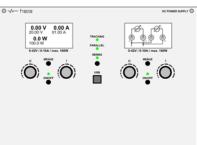
#### Technical Data Lab Power Supply Extended Range:

- 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 la = 50%): <0,7mV<sub>BMS</sub>.
- Set time (load step 10-90% la, at 50% Ua): <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		
<b>4</b> EP	<b>406</b> 100W / 0 - 42V / 0 - 6	A 7 Single	0,75EP / 1,5MP	2 USB		
7 MP	<b>410</b> 160W / 0 - 42V / 0 - 1	0A 8 Double	1EP / 2MP	7 USB / LAN		
	<b>420</b> 320W / 0 - 42V / 0 - 2	POA				
	803 100W / 0 - 84V / 0 - 3	A				
	805 160W / 0 - 84V / 0 - 5	5A				
Lab Power Supply ICOM LINEAR 33 S.LLL . A 03						
<b>4</b> EP	<b>302</b> 0 - 30V / 0 - 2A	<b>310</b> 0 - 30V / 0 - 10A	4 Single	0,75EP / 1,5MP		
7 MP	<b>305</b> 0 - 30V / 0 - 5A	605 0 - 60V / 0 - 5A	5 Double	1EP / 2MP		



# EP/MP AC / DC SOURCE 0 ... 260V/ 3A WITH DIVIDER TRANSFORMER

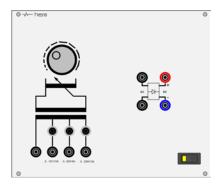
- Variac with downstream isolating transformer for 0...260V/ 3A, 0...60V/ 6A and 0...12V/ 15A.
- Each range protected by front side operated thermomagnetic fuse.
- Output at 4mm safety jacks.
- Bridge rectifier for a pulsating DC voltage with 48% ripple.
- Illuminated 2poles switch for central on / off.

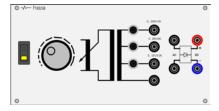
AC / DC Source 0260V / 3A with Divider Transformer		
334.221.402	1EP	
337.221.402	2MP	

# EP/MP VARIABLE AC / DC SOURCE

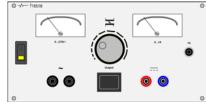
- Variac with downstream isolating transformer for floating voltage of 0 ... 100%.
- Bridge rectifier for a pulsating DC voltage with 48% ripple.
- AC and DC output at 4mm safety jacks.
- Current and voltage reading. analog: moving iron instrument, class 1,5. digital: 3digit LED display TrueRMS (< 0,5% +/- 1 digit).</li>
- 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
<b>4</b> EP	039 0-30V/10A 1EP/2MP	<b>275</b> 0-270V/5A 2MP	3 analog
7 MP	054 0-50V/5A 1EP/2MP	<b>274</b> 0 - 270V / 1A + 0 - 60V / 4A 1,5EP / 2MP	4 digital
	<b>271</b> 0 - 270V / 1A 1EP / 2MP	<b>279</b> 0 - 270V / 3A + 0 - 60V / 10A 2EP / 2MP	
	273 0-270V/3A 1,5EP/2MP		





Variable AC Souce

non floating (1,5MP)

888

888

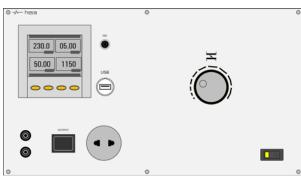
Variable AC Souce floating (1EP)

Variable AC Source

non floating (1EP)

# 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)

#### 33 S. LLL . A 12 LLL Type S System **A** Reading FP non-floating 4 floating 1 analog 7 MP 063 0-60V/3A 1EP/1,5MP **231** 0 - 230V / 1A 1EP / 1,5MP 5 digital **271** 0 – 270V / 1A 1EP / 2MP 233 0-230V/3A 1EP/1,5MP 6 MFD (min. 0-270V/5A) 273 0-270V/3A 1,5EP/2MP **236** 0 – 230V / 6A 2MP / 3MP (MFD) 7 MFD with USB 275 0 - 270V / 5A 2MP / 3MP (MFD) 239 0 - 230V / 10A 3MP 8 MFD with LAN 279 0-270V/10A 4MP

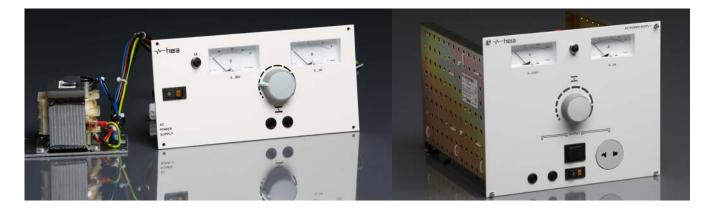
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Variable AC Source, floating (1,5EP)

88F

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# 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).

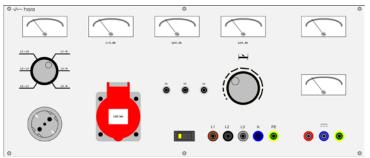
#### MFD (Multifunctional Display):

- 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.

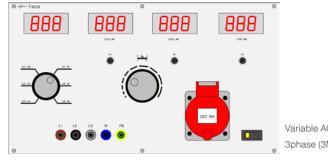
Variable AC/DC Source 3phase (2EP)



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
<b>4</b> 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)
	<b>405</b> 0 - 230V / 400V / 5A 4MP	<b>415</b> 0-230V/400V/5A 4MP	7 MFD with USB
	408 0-230V/400V/8A 4MP	<b>418</b> 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<sub>ss</sub>.
- Output at BNC socket ( $Ri = 50\Omega$ ).

334.820.102 337.820.102

Function Generator 200kHz COMPACT

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# EP/ MP ANALOG FUNCTION GENERATOR 1MHZ (POWER AMPLIFIER)

 Function generator 1MHz with amplifier 100kHz, frequency adjustment with multiturn potentiometer.

0,5EP

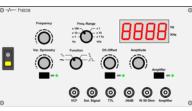
1MP

- 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<sub>ss</sub> (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<sub>eee</sub> continous power at sinus with 5Ω.
- Short-circuit proofed due to retracted current characteristic.
- Max. output voltage 40V<sub>ss</sub>.

Function Generator / Amplifier			nplifier 33 <mark>S</mark> .653. <mark>AAA</mark>
S Sys	stem	AAA	Туре
3	EP	102	no amplifier 1EP / 2MP
6	MP	202	with amplifier 1EP / 2MP
		002	only amplifier 0,5EP / 1MP









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: 10µHz.
- Total distortion: < 1%.
- Rectangular signal: < 50ns rise -/fall time.
- Amplitude: 0 20V<sub>ss</sub> (resolution: 5mV<sub>ss</sub>).
- 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.

DS 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: 1µHz 20MHz, distortion <0.2%.
- Frequency range rectangular: 1µHz 5MHz, rise time <20ns.</li>
- Frequency range triangle: 1µHz 150kHz.
- Frequency range arbitrary:1µHz 5MHz, resolution 1µHz.
- Wave form memory: 4kpts.
- Output Ri: 50Ω.
- 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.

Only fits in rack depth >= 300mm.



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ļ	Arbitrary Function Generator, 2 Channel		
З	334.666.102	1EP	
Э	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<sub>SS</sub> (max. 1MHz), max. 3V<sub>SS</sub> at 10MHz.
- Resolution: 12 Bit.
- Duty cycle: 0,1% ... 99,9%.
- DC Offset: ± 7,5V.
- Frequency measurement: max. 50MHz.

# 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 IMODdesk 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.



Function Generator ICOM	
334.830.102	1EP
337.830.102	1MP





604.000.100 Immerson Sensor -70 ... +250°C

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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	Immerson Sensor -70 +250°C
604.000.200	Surface Sensor -70 +250°C
604.000.300	Kapton Sensor -190 + 260C



# 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).
- Resitance: 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:  $600\Omega...60M\Omega$ .
- Measuring range capacity: 6nF...6mF.
- Measuring range inductivity: 600µH...100mH.
- Measuring range temperature: -40°C...1000°C.
- Measuring range frequnecy: 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

- Details for 34461A (for 34450A please see manufacturer data sheet): Bright and easy to read, high resolution graphic color display, diagonal 109mm for the presentation of curves, histrograms, bargraphs, statistics and mathematic functions. Accuracy: 75ppm (max. drift).
- Measuring rate up to 1.000 measurement/sec.
- Voltage DC: 100mV 1.000V / resolution from 1µV.
- Voltage AC: 100mV 750V / resolution from 1µV.
- Current DC / AC: 100µA 10A / resolution from 1nA.
- Restistance  $100\Omega 100M\Omega$  / resolution from  $1m\Omega$ .
- Frequency / period 3Hz 300kHz.
- Capacity measurance 1nF to 100µF.
- Temperature with optional RTD/PT100 and thermistor.
- Constant measuring voltage of 5V (LED)-diodes and -arrays.
- Truevolt-technololgy for reduction of noise and measuring errors.
- Drag-and-drop-data transfer via front-USB.

#### Precision Multimeter 6 1/2 Digit

334.702.302	Keysight 34461A (1EP)
337.702.302	Keysight 34461A (2MP)
930.453.600	(alternatively: Keysight 34450A (2MP)



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# 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 6/7digit) 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 41/2 digit 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. 0,01m  $\!\Omega.$
- 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 5/6 digit LC-display (27mm), backgound-illuminated.
- Multimeter function for current, voltage and frequency.
- LCR measurement for resistance, capacity and inducatance.
  - Continuity and diode test.
- Temperature measurement (type K element).
- min./max. and relative value measurement.
- Safety: EN 61010-1, CAT III 1000V / CAT IV 600V.
- Accessory: test leads, type K thermo-probe.
- Basic accuracy DC: +/- 0,1%.
- LCR functions: L, C, R (test frequency: not adjustable).
- Inductance max. 6H / capacity max. 4000µF / OHM max. 60MΩ.
- Temp. max. 1000°C / Temp. min. -20°C.
- V DC max. 1000V.
- Hz max. 10MHz.
- mA DC max. 600mA / μA DC max.: 600μA.
- V AC max. 1000V / mA AC max. 600mA /  $\mu A$  AC max. 600 $\mu A.$

#### LCR Meter:

- 4 1/2 digits 27mm LC display with background illumination.
- Resistance: 1100hm / 1,1 / 11 / 110k0hm / 1,1 / 11 / 110M0hm, ±1,2% + 8 dgt., 10m0hm.
- 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







DMM+LCR

LCR-Meter

Digital Multimeter, LCR-Meter and Calibrator		
337.708.302	TRMS Multimeter DM62, incl. power supply (1MP)	
337.708.402	Precision Multimeter TECH 41/2 digit TRMS, incl. power supply (1MP)	
337.708.602	Calibrator and Multimetr 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. •

3SS .AAA .002

- Front side USB 2.0 HighSpeed. •
- Spectrum analyzer function.

PC Oscilloscope PeakTech

SS System AAA Type

928

24 3 KP

34 0,5 EP

37 0,5 MP

PC Oscilloscope PicoSc		e PicoS	cope 3 <mark>SS</mark> .AAA .002
SS	System	AAA	Туре
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

925 P1290: 2 Channel 25MHz (100MS/s)

926 P1280: 2 Channel 60MHz (500MS/s)

P1325: 4 Channel 60MHz (500MS/s)

927 P1285: 2 Channel 100MHz (1GS/s)

In front panel integrated digital storage oscilloscope incl. BNC cables, PASS/ FAIL adpater, 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)

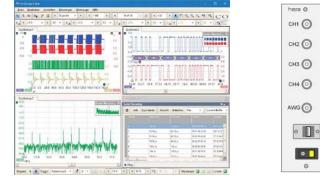
338.101.030	30MHz / 2 Channel / 125MSa/s (3MP)
338.101.070	70MHz / 2 Channel / 500MSa/s (3MP)
338.101.100	100MHz / 2 Channel / 1GSa/s (3MP)
338.101.200	200MHz / 2 Channel / 2GSa/s (3MP)



#### USB -CH1 CH2 0 0

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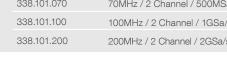
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;	System	AAA	Туре
ļ	3 KP	827	2207B: 2 Channel 70MHz (64MS)
ļ	0,5 EP	829	2208B: 2 Channel 100MHz (128MS)
	0,5 MP	847	2407B: 4 Channel 70MHz (64MS)
		849	2408B: 4 Channel 100MHz (128MS)

#### 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.

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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.

Contstant 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: ± 0,1% ± 1 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 differencial -, relative or absolute pressure.
- 31/2 digit 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:

- Precission 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.



~~her	3		PRESSURE GAUGE )
-	e sbar		
	HM28 010'000 mbar		
<b></b>	ON STATISTIC		Y A
R5232	OFF PRINT MODE	66	
c		S- IN	OUT P

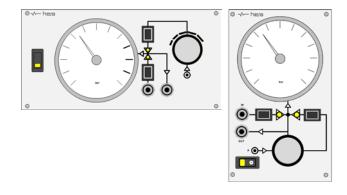
# Pressure Measurement - / Calibrator digital

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

- Precission 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 Calibra	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)							
920.141.500	Set of Hoses and Adapters							







# 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: 0,000Ω...4,000Ω test current: 200mA DC / open-circuit voltage 10V.
- Insulation resistance: 0,00MΩ...20,00MΩ, 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...20,00mA, open-circuit voltage: approx. 200V AC (max. 2,5 mA).
- 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:

- 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.

#### 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



Device Tester VDE 0701/0702 (2MP)



Windows Software Safety-Remote



Android Test Master App



Notices:

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Notices:







# CHAPTER 11: 19" INSTRUMENT RACKS & MODULES

- 354 PROFI 19" Cassette Racks
- 356 19" Cassette Racks and Carrying Cases
- 358 19" Bench Racks for Modules
- 359 PROFI 19" Suspended Bench Racks
- 360 19" Containers
- 361 PROFI 19" Racks
- 363 Carrying Case and Folding Table
- 364 Power Cables and Signal Lamps
- 366 Blank Panels, Cassettes and Insertions
- 367 Cavity Box and Emergency Stop Button
- 368 Mains Panels (1phase / 3phase)
- **<u>371</u>** Central Mains Module and Central Power Distribution
- 372 Central Control for Classroom Application
- 373 Socket Panels
- 374 Isolating Transformers and 3phase Sockets
- 375 Measuring Module with Mutifunctional Display
- **376** Test Speaker, Continuity Tester, Pneumatic
- 377 Interfaces and Keystone Modules
- 378 Soldering / Desoldering Stations

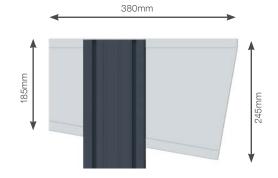
- 380 R-, C- and L-Decade
- 381 Load Resistance
- 383 AC Extra Low Voltage 1-/3-phase
- 384 Variable AC Sources 1 phase
- **386** Variable AC Sources 3phase
- 388 Meter Tester and Motor Tester
- 389 Motor Tester and Variacs
- **<u>390</u>** Sinus Frequency Converters
- 392 Fixed DC Supplies and Lab Power Supply Compact
- **394** Lab Power Supply
- 396 High Performance DC Supplies
- 397 Function Generator and Amplifiers
- 400 Digital Multimeter
- 402 Oscilloscope
- 403 Standard Signal Generator and Thermometer
- 404 Digital Manometer and Pressure Calibrator
- 405 Appliance Tester to VDE 0701/0702
- 406 Subrack for Cassettes & EP/MP Modules



# 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 W	/idth / Equipmen	A Version F Extension
08	800mm / 133TE	1600mm / 294TE 0 Standard 9 for SINGLE / MULTI
09	900mm / 154TE	1800mm / 336TE 1 ESD 📩 7 for ENERGY
10	1000mm / 175TE	2000mm / 371TE
12	1200mm / 224TE	2303mm / 434TE
13	1295mm / 231TE	Corner 1213 x 1213 / 210TE
15	1500mm / 273TE	





# 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. BB A . F )1		
BB Width / Equipment / N	los of Sockets	A Version	F 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		
<b>15</b> 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 sied 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" Ca	ssette Rack Straight 3HE		218. <mark>BB A . F</mark> 01						
BB	Width / Equipment (bet	ween	SINGLE/ MULTI)	Α	Versi	on		Exte	nsions
06	600mm / 105TE (91TE)	18	1800mm / 336TE (322TE)	5	Standa	ard	2	no Exte	nsions
08	800mm / 133TE (119TE)	20	2000mm / 371TE (357TE)	6	ESD		(	betwee	n 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

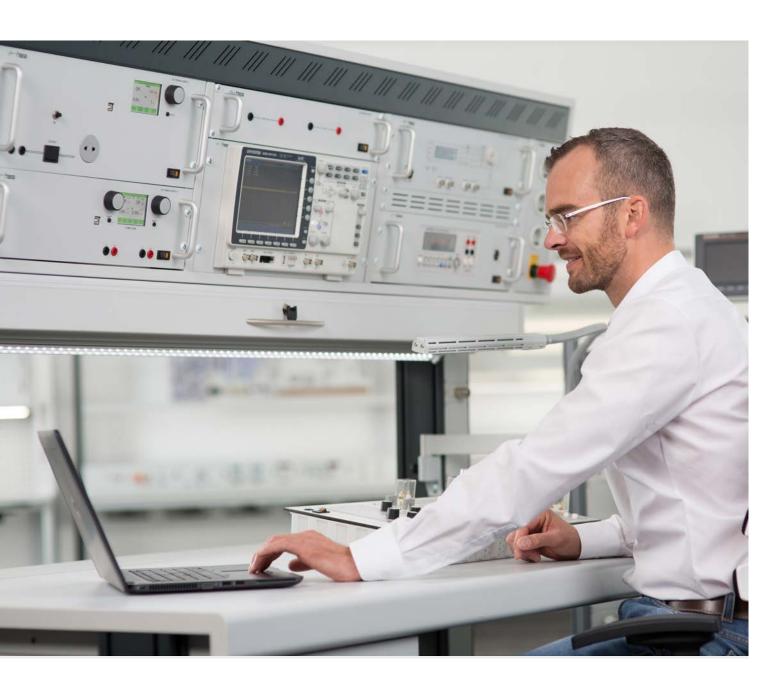
- Front and rear side are made of aluminium extrusion and sheet steel sides with recessed handle.
- 19" subracks for 3HE cassettes and 3HE modules in euro raster (DIN 4494). Right and left sied with compensating panels, 19" rails and H15 connectors.
- Completely wired with 2m power cable and CEE plug (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					





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.



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# 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.

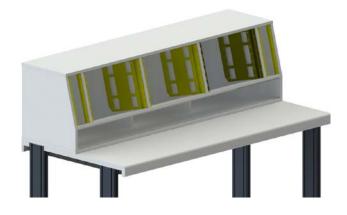


## PROFI 19" EASY Bench Rack 420. BB H . F 0 A

BB	Width / Equipment	Η	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.

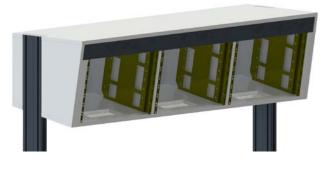


#### >> see chapter 10 for EP modules

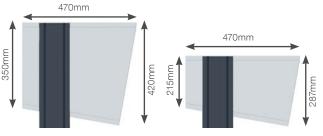
19" Bench Rack for HE and EP 420.BB0.50		
BB Width / Equipment		A Version
<b>13</b> 1295mm / 2x Module + 2x 7HE + 4,5EP	18 1800mm / 2x Module + 3x 7HE + 6EP	0 Standard
15 1500mm / 2x Module + 2x 7HE + Rest + 5EP	20 2000mm / 2x Module + 3x 7HE + Rest + 7EP	5 ESD 🚣
<b>16</b> 1600mm / 3x 7HE + 5EP	23 2303mm / 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.



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#### PROFI 19" Bench Rack Superstructure 420. BB A . F 01

BB	Width / Equipment
13	1295mm / 2x Modules + 2x HE Sections

- 1500mm / 2x Modules + 2x HE Sections + Rest 15
- 1600mm / 3x HE Panels (only SINGLE/ MULTI) 16
- 1800mm / 2x Modules + 3x HE Panels 18
- 2000mm / 2x Modules + 3x HE Panels + Rest 20
- 23 2303mm / 2x Modules + 4x HE Panels
- 50 Corner 1213 x 1213 / 2x HE Panels

Α	Version	F	Cutout
0	7HE / Standard	3	for ENERG
1	7HE / ESD 🔼	9	for SINGL
4	4HE / Standard		
5	4HE / ESD 🛛 📩		



r SINGLE / MULTI





# 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 ntus 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 accessable 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

in top plate



HR: 19" suspended rack with fixing holes



PR: 19" pedestal rack with base and leveling feet



MR:19" mobile rack with 70mm twin casters

page 352
nd Control
Î

# 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).



Door for 19" Container Rack 475. T HH.00 A HH Height **A** Version **T** Door Wood 02 0 Standard 2HE / 130mm 12 12HE / 580mm 0 5 Safety Glass 4HE / 220mm 14 14HE / 670mm 5 ESD 04 07 7HE / 355mm 21 21HE / 985mm

#### Technical details are subject to change. © 2023.09 | www.hera.de



#### 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.



	PRO	FI 19" Rack	470	. T HH.902		
	Т	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		
F	Front Door for PROFI 19" Rack 471.0 HH					







#### 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 HE raster).
- Lower side with telescopic rail 45kg, 610mm extension.
- 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 detph: 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	ЗНЕ	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.

Carrying Case for 19" Panels

3HE

4HE

6HE

• Depth: 490mm.

394.003.500

394.004.500

394.006.500

	TEE	EEEE	EE M		
			1		
	-		13		
			a 4		
	-		. 4	a straight	1
	-		943	4	1
	-		2		
•				-	-

394.007.500

394.010.500

7HE

10HE

### FOLDING TABLE FOR PROFI RACK

- Light grey 19mm thick melamine resin covered chipboard 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. <b>T</b> 0 <b>P</b> .00 <b>A</b>	
T Depth	P Table Top	A Version
<b>0</b> 645mm <b>2</b> 900n	nm <b>0</b> 19mm	0 Standard
<b>1</b> 800mm <b>3</b> 1000	mm <b>3</b> 30mm	5 ESD 📩



#### POWER CABLES

Flexible power cables for the connection to the bench racks.





Power Cable			
291.001.030	3m (3x 1,5mm²) with Open End	291.001.300	5m (5x 2,5mm²) with CEE Plug 16A red
291.001.100	5m (3x 1,5mm <sup>2</sup> ) with Open End	291.001.350	5m (5x 6mm²) with CEE Plug 32A red
291.001.140	Type F Plug for Self Assembly (Euro)	291.001.400	5m (3x 1,5mm <sup>2</sup> ) with CEE Plug 3poles blue
291.001.144	Type J Plug T12 for Self Assembly (Swiss)	291.001.500	5m Emergency Stop Cable (2x 1,5mm <sup>2</sup> ), Open End
291.001.147	Type G Plug for Self Assembly (British)	291.001.550	3m Emergency Stop Cable (2x 1,5mm <sup>2</sup> ), Open End
291.001.257	5m (3x 1,5mm²) 10A with Type J Plug	291.001.603	3m Patch Cable, grey with RJ45 CAT6
291.001.200	3m (3x 1,5mm²) with Type F Plug	291.001.605	5m Patch Cable, grey with RJ45 CAT6
291.001.250	5m (3x 1,5mm²) with Type F Plug	291.001.610	10m Patch Cable, grey with RJ45 CAT6
291.001.150	5m (5x 2,5mm²) with Open End	291.001.045	0,4m EP/ MP Plug with Type F Plug
291.001.256	5m (3x 1,5mm <sup>2</sup> ) with Type G Plug	291.001.690	Brackets for Keystone Adapters 100 x 40 x 30mm
291.001.258	4m Power Cord with NEMA 5-15 Plug (US)		(WxDxH) for Plug-Connection

#### 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. ٠



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
- 1x LE (red) 1
- 2 2x LE (red / green)
- 3x LE (red / green / yellow) 3

L

- Lamp 1 Filament 5W
- 3 LED Continous



- 0 bench rack / ENERGY extension
- 1 PROFI extension
- 2 at the side of an extension

#### **D** Diameter

- 0 70mm Standard
- 1
- 40mm Slim

# WIDE RANGE OF APPLICATONS: FROM TESTING TO METROLOGY

The 19" system offers a wide range of instruments and sources with highquality 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.





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<u>Width:</u> TE = 5,08mm

<u>Height:</u> 3HE (128mm)

<u>Depth:</u> 290mm



#### **19" Insertion**

<u>Width:</u> 19" = 483mm

Height: HE (44,45mm)

<u>Depth:</u> 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 acceptancee of breadboards in standardized euro format.
- Rear side made of aluminium with H15 connector.
- Depth: 290mm.



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0	0
0	0
0	0

Blank Panel / Blank Cassette	340.0 <mark>HH</mark> . <mark>A</mark> 02		
HH Height			A Version
07 7TE (only blank panel)	<b>28</b> 28TE	<b>49</b> 49TE	1 Blank Panel
14 14TE (only blank panel)	<b>35</b> 35TE	56 56TE	2 Blank Cassette
<b>21</b> 21TE	<b>42</b> 42TE	63 63TE	
		<b>84</b> 84TE	

### 19" HE BLANK PANEL, BLANK MODULE AND BLANK INSERTION

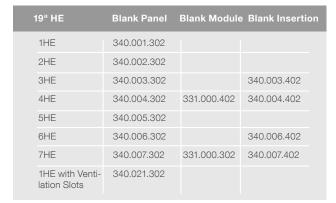
- Aluminium front panel light grey powder coated with fixing bolts.
- Abrasion proofed silkscreen printing.
- Width: 19" (483mm); module: 115mm.
- Height: in HE raster (HE = 44,45mm).

#### 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" PANEL WITH CAVITY BOX

• Cavity box for the flexible equipment with flush-mounted installation material.

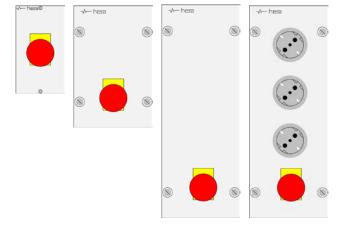
340.220.102	Cavity Box 21TE
Suitable Installatio	n Sockets and Jacks
333.220.500	Blank Cover 1fold
333.220.502	Blank Cover 2fold
333.220.510	TV-Antenna-Jack 2 holes
333.220.520	SAT-Antenna-Jack 3-3 holes
333.220.530	Double-UAE-Jack RJ45
333.220.540	TAE Jack 6F
333.220.550	red PE Socket Type F with Label
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





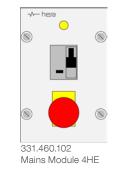


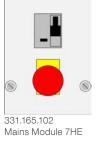
#### 19" Mains Panel 16A

- 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.

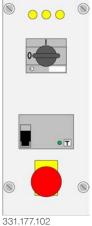
S P T N

• Completely wired with input terminal and output coupler.



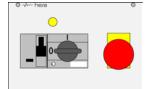


-V-hera

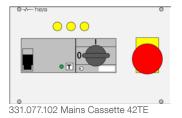


-M-hera

Mains Module 7HE



331.065.102 Mains Cassette 35TE





331.265.102 Mains Insertion 2HE



331.277.102 Mains Insertion 2HE

S System	P Phases	TRCD	N Emergency Off
0 19" Cassette Panel 21-42TE	6 1phase 230V	0 none	<b>0</b> none
1 19" Mains Module 7HE	7 3phase 400V	5 Type A	1 Emergency Off
2 19" Mains Panel 2HE		7 Type B	2 Emergency Off with Key
4 19" Mains Module 4HE			3 Black Emergency Stop with Key
331 xxx xx8 Mains Panels 1	20V Versions		

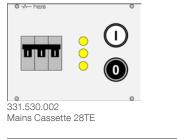


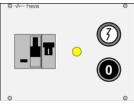


### 19" MAINS PANEL WITH CONTACTOR

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.





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331.630.002 Mains Module 7HE

331.515.002 Mains Cassette 28TE

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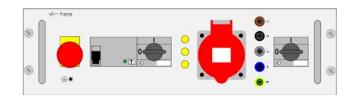
Mains Module with Contactor 331. S P T . F 02			
S System	P Phase	TRCD	F Activation
5 19" Cassette 21-56TE	1 1phase with CB B16	0 none	0 1-level with On / Off Button
6 19" Module 7HE	3 3phase with CB B16	5 Type A	1 1-level with Key-On / Off Button
	2 1phase with MCB and UVR	7 Туре В	2 2-level with Key-On / 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.

М	ains Panel 32A	3	31.37 T . N 02
Т	RCD	Ν	Emergency Off
0	none	0	none
5	Туре А	1	Emergenc Off
7	Туре В	2	Emergency Off with Key
		3	Black Emergency Stop with Key

- 5x safety jacks.
- 16A output protection with motor circuit breaker.
- Completely wired with input terminal and output coupler.





# **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. You can control the supervise student workstations by directly entering a key code at the distribution rack or by sotware with LAN or WLAN connection.





### 19" MAINS MODULE FOR INSTRUCTOR BENCH

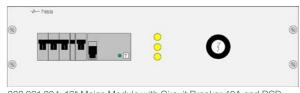
Installed in a 19" rack of the instructor bench and applicable for central protection of the complete lab. Either as an upstream installation for power distribution to the student benches or individually protected student benches.

- 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.

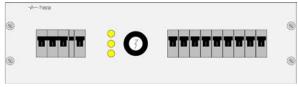
19" Mains Module for Instructor Bench 3HE		
332.091.104	Circuit Breaker 40A no RCD	
332.091.106	Circuit Breaker 63A no RCD	
332.091.204	Circuit Breaker 40A with RCD 300mA	
332.091.206	Circuit Breaker 63A with RCD 300mA	
332.091.304	Circuit Breaker 40A no RCD, 9x Circuit Breaker B6	



332.091.106: 19" Mains Module with Circuit Breaker 63A 3HE



332.091.204: 19" Mains Module with Circuit Breaker 40A and RCD 3HE



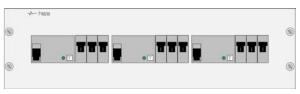
332.091.304: 19" Mains Module with Circuit Breaker 40A and 9x Circuit Breaker B6 for student workstations 3HE

### 19" 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.

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 3x B16) 3HE	
332.092.305	for 13x 3phase (13x CB 3x B16) 6HE	
332.092.403	for 6x 3phase + RCD (6x CB 3x B16 + FI 4pole 30mA) 6HE	
332.092.405	for 6x 3phase + RCD (3x RCD 4pole + 6x CB 3x B16) 6HE	



332.092.205: 19" Power Distribution for 9x 1phase with RCD (3x RCD 4poles + 9x CB B16) 3HE



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



332.092.405: 19" Power Distribution for 6x 3phase with RCD (3x RCD 4poles + 6x CB B16 3phase) 6HE



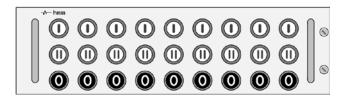
#### 19" CENTRAL CONTROL (PUSH-BUTTON-CONTACTOR)

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 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 LOGC

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

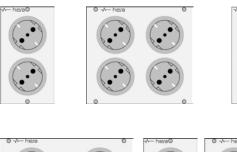


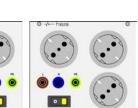
## 19" **SOCKET** PANEL (TE)

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 (TI	Ε)
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





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### 19" SOCKET MODULE

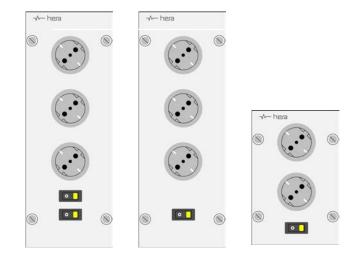
19" aluminium front panel light grey powder coated with abrasion proofed silkscreen printing, fixing bolts and H15-connector.

- 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.







PE Sockets

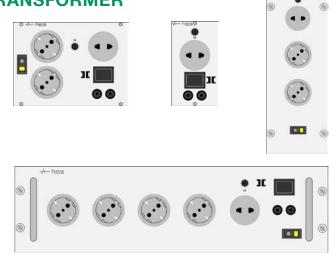


#### 19" SOCKET PANEL WITH ISOLATING TRANSFORMER

- 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.



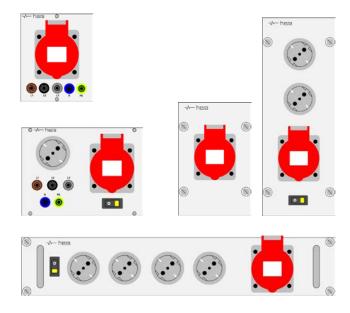
Socket Panel with Isolating Transformer		
340.535.102	19" Cassette 700VA/ 3A + Selector for Safety Jacks, with 2x Sockets Type F (35TE)	
340.535.122	19" Cassette 115VA/ 0,5A + Selector for Safety Jacks (14TE)	
331.024.302	19" Module 700VA/ 3A 4HE	
331.025.302	19" Module 700VA/ 3A + 2x Sockets Type F (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)



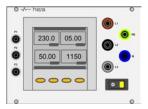




#### 19" PANEL WITH MUTLIMEASURING UNIT

- 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 U	nit	34 <mark>5</mark> .389.51
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: ±0,2%.
- Phase current TRMS (calculated neutral); accuracy: ±0,2%.
- Power (effective -, reactive -, apparent power per phase and in total); accuracty: ±0,5% v. EW.
- Power factor (per phase and in total); accuracy: ±0,5%.
- Frequency (frequency of measured voltage); accuracy: ±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).



∿—hera		
PH-PH VC	DLTAGE	
L1-L2 0	V L3-L1 0	V
L2-L3 0	V	
UL1N 0	230 V REMOTE	146 Soll



CONTINUITY TESTER

2

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#### 19" CASSETTE CONTINUITY TESTER

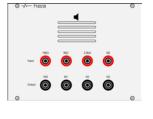
- High ohmic, electronic continuity tester, poled.
- Resistance range:  $0...200k\Omega$  with accoustic signalling • (sound alternation with changing resistance).
- External voltage protection and status light. •
- Electric continuity tester for low ohmic tests with  $24V_{AG}$ with status light.
- Output on 4mm safety jacks.
- Illuminated 2poles switch.

### 19" CASSETTE WITH TEST SPEAKER

- Test speaker 10Watt / 8Ω. (transmission range: 130-20.000Hz).
- Upstream connected transmitter for impedance matching (transmission range: 40-20.000Hz); primary winding:  $2k\Omega / 4k\Omega / 8k\Omega / 16k\Omega$ . secondary:  $4\Omega$  /  $8\Omega$  /  $16\Omega$ .
- Connection at 4mm safety jacks.

380.090.302

Test Speaker 35TE



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#### 19" CASSETTE WITH PRESSURED AIR SUPPLY

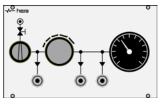
- Shut-off valve.
- Self-closing quick release coupler 4/6 (unregulated).
- Pressure regulator with analog pressure gauge.
- Two self-closing quick release coupler (regualted).
- Completely hosed with open end hose 4/6.

P	ressured Air Supp	bly
(	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	e with Selective Poles
380.090.052	5x Safety Jacks 7TE
380.090.102	12x Safety Jacks + 2x BNC Jacks 21TE





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#### **19" MODULE WITH INTERFACES**

Front panel integrated with interface plug and cable.

19" Modul	es 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 21TE
340.618.802	Gigabit Ethernet Switch 8 Port 42TE
340.624.102	Gigabit Ethernet Switch 24 Port 1HE
340.624.202	Patch Field 24 Port 1HE



#### **KEYSTONE** MODULE

- Individual configuration and flexibly exchangable. •
- Easy snap-in assembly in Keystone adapter.

Keystone Mod	lule		
330.800.000	Cover	330.830.500	USB3.0 C Female > Male with Cable
330.810.100	RJ45 Coupler Cat. 5e	330.830.600	USB Type-A Charging Socket 1a black
330.810.200	RJ45 Coupler Cat. 6a	330.840.100	HDMI Female > HDMI Female black
330.810.3F0	RJ45 Coupler > LSA (displaced insulation) Cat.6	330.840.300	mini Displayport Female > Male with Cable
	(F=0: black; 1: red; 2: green; 3: yellow; 4: blue)	330.850.100	Jack 3,5 mm Socket > Socket gold plated
330.810.400	RJ45 Coupler > LSA (displ. insul.) Cat.6 shielded	330.850.2F0	Cinch Female > Cinch Female (0: yellow; 1: red; 2: white)
330.820.100	Fibre Optic Module LC Duplex Female > Female	330.860.100	BNC Female > BNC Female black
330.820.200	Fibre Optic Module SC Simplex Female > Female	330.860.200	F Female > F Female
330.830.100	USB 2.0 A-Female > B-Female	330.860.300	IEC Female > F Female
330.830.300	USB 3.0 A-Female > B-Female	330.860.400	IEC Male > F Female





330.800.000



330.810.310







330.820.100





330.830.100

330.810.100



330.830.300 330.830.500

330.830.600

50 cm



10



330.840.100

330.840.300

330.850.100

330.850.210

330.860.300



#### 19" SOLDERING STATION, ANALOG

- 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, Analog

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













- 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 coginition 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.

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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, Nut Driver for Nozzle Change)			



Soldering Set

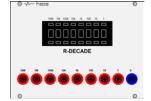
Desoldering Set

Hot Air Set



#### 19" MODULE **R-DECADE**

- 8x decade switches with precision resistors: 1Ω, 10Ω, 10Ω, 1kΩ, 10kΩ, 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 3511

### 19" MODULE **C-DECADE**

- 8x decade switches with 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.

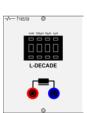
380.002.202

C-Decade 21TE

### 19" MODULE **L-DECADE**

- 4x decade switches with precision coils: 1µH, 10µH, 100µH, 1mH.
- Max. voltage: 100V.
- 2 x 4mm safety jacks for inductivity tap.

380.002.302 L-Decade 21TE



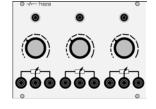




#### 19" MODULE WITH LOAD RESISTORS

- Stepless adjustable load resistance 50W (test voltage: 2,5kV).
- Thermal circuit breaker for overload protection.
- Each resistor with 2 end taps and one center tap at 4mm safety jacks.





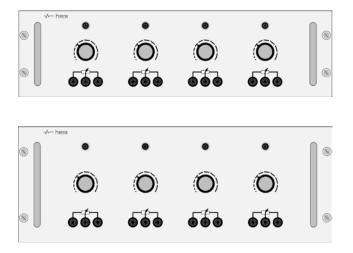


Load Resistor					
380.005.102	0-10Ω/2,2Α 14ΤΕ				
380.005.202	0 - 100Ω / 0,7A 14TE				
380.005.302	0 - 1kΩ / 0,2A 14TE				
380.005.402	0 - 10kΩ / 0,1A 14TE				
380.005.002	3x Load Resistors 0 - 0,1 / 1 / 10kΩ 35TE				

### 19" INSERTION LOAD RESISTORS

- 4x 50W
  - four stepless adjustable load resistors (test voltage: 2,5kV):
  - 0 10Ω / 50W; 2,2Å
  - 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 maxiumum of safety to its user.







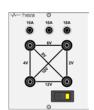
### 19" CASSETTE AC LOW VOLTAGE, 1PHASE

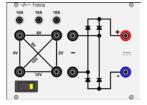
- Isolating transformer with floating 10A outputs, pluggable for 2V, 4V, 6V, 8V, 10V or 12V.
- Protected by front side operated thermomagnetic fuses.
- Output at 4mm safety jacks.
- Pluggable bridge rectifier via 4mm safety jacks.
- Illuminated 2poles switch.

AC Low Voltage, 1phase

342.012.102

342.012.202





### 19" CASSETTE AC LOW VOLTAGE, 3PHASE

• 3phase isolating transformer 345VA for floating 3phase voltage of 23V/ 40V.

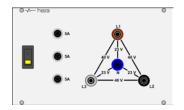
no Bridge Rectifier 21TE

with Bridge Rectifier 35TE

- 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.



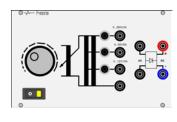


342.031.102



#### 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

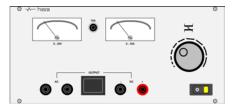
### 19" CASSETTE VARIABLE AC/DC SOURCE, 1PHASE

- 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 analog: 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 analog 56TE		
	346.053.202	0-50V / 3A analog 56TE		
	346.271.202	0-270V / 1A + 0-60V / 4A analog 63TE		
	346.271.602	0-270V / 1A + 0-60V / 4A digital 63TE		
	346.273.202	0-270V / 3A + 0-60V / 10A analog 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 analog: 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 analog 63TE	
342.271.602	0-270V / 1A digital 63TE	
342.273.202	0-270V / 3A analog 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 • analog: 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, analog 3HE		
346.273.502	0-270V / 3A + 0-60V / 10A, digital 3HE		
346.275.102	0-270V / 3A analog 4HE		
346.280.102	0-270V / 10A analog 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:
  - analog: 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.





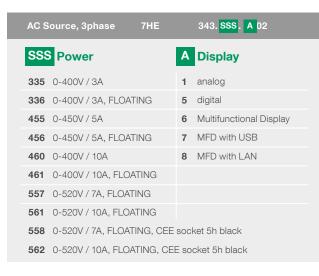
AC Source, 1phas	342. SSS. A 04		
SSS Voltage / Current			A Reading
233 0-230V / 3,2A 3HE non-floating	273 0-270V/3A 3H	IE FLOATING	1 analog
236 0-230V / 6,3A 4HE non-floating	<b>275</b> 0-270V / 5A 4H	IE FLOATING	5 dgital
242 0-230V / 12A 4HE non-floating	<b>280</b> 0-270V / 10A 4	HE FLOATING	6 Multifunctional Display (MFD)
246 0-230V / 16A 4HE non-floating	<b>282</b> 0-270V / 12A 4	HE FLOATING	7 MFD with USB
	<b>301</b> 0-300V / 10A 4	HE FLOATING	8 MFD with LAN
	286 0-270V / 16A 7	HE FLOATING (requires 3phase supply)	
	306 0-300V / 16A 7	HE FLOATING (requires 3phase supply)	



### 19" INSERTION AC SOURCE, 3PHASE

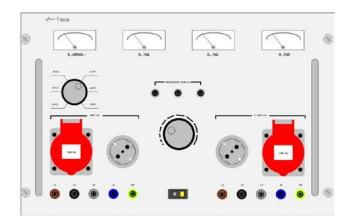
- Star connected 3phase variac for an output voltage of 0 100%.
- Option FLOATING: downstream connected isolating transformer for galvanically isolated output voltage.
- Inrush current limiter with primary fuse.
- Front side operated thermomagnetic fuses for output protection.
- Voltage reading with measuring point selector and 3x current readings L1, L2 and L3.
  - analog: 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,

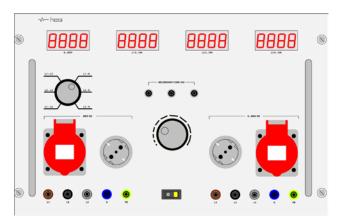
5x 4mm safety jacks (L1, L2, L3, N, PE) and PE socket (type F, others on demand).

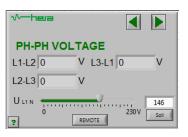


#### **Technical Data Multifunctional Display:**

- 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: ±0,2%.
- Phase current TRMS (calculated neutral); accuracy: ±0,2%.
- Power (effective -, reactive -, apparent power per phase and in total); accuracty: ±0,5% v. EW.
- Power factor (per phase and in total); accuracy: ±0,5%.
- Frequency (frequency of measured voltage); accuracy: ±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).







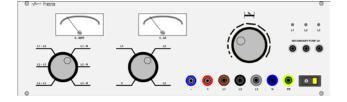




### 19" CASSETTE VARIABLE AC/DC SOURCE, 3PHASE

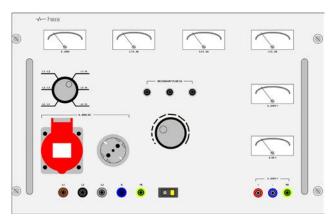
- 3phase variac for a non-floating output voltage of 0 400V. Protected by front side operated thermomagnetic fuse.
- AC/DC source with 6-point rectifier for a pulsating DC voltage with 4,3% ripple.
- Output at 4mm safety jacks.
- Current and voltage reading with phase selector.
   analog: moving iron 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 analog 70TE		
348.401.602	AC Source 0-400V / 1A digital 70TE		
348.403.102	AC/DC Source 0-400V / 3A analog 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, staight 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.
  - analog: 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				Α	Reading
335	0-400V / 3A, non-floating	461	0-400V / 10A, FLOATING		1	analog
336	0-400V / 3A, FLOATING	557	0-520V / 7A, FLOATING		5	digital
455	0-450V / 5A, non-floating	561	0-520V / 10A, FLOATING			
456	0-450V / 5A, FLOATING	558	0-520V / 7A, FLOATING, with	CEE Socket 5h black		
460	0-400V / 10A, non-floating	562	0-520V / 10A, FLOATING, wit	h CEE Socket 5h black		



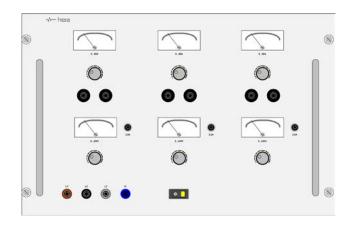
### 19" INSERTION **METER TESTER**

#### 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 analog 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 analog current readings (moving iron class 1,5).
- Illuminated 2poles switch with contactor.



353.260.102

Meter Tester 7HE

#### 19" INSERTION MOTOR TESTER WITH VARIAC

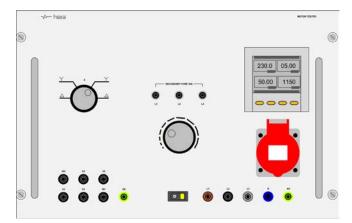
- 3phase variac for non-floating output voltage of 0 400V/ 10A.
- Protected by front side operated thermomagnetic fuses.
- 7x 4mm safety jacks arranged as motor terminal board (U1, U2, V1, V2, W1, W2 and PE).
- Selector switch for start delta and rotation direction.
- Extra outputs with 4mm safety jacks (L1, L2, L3, N, PE) and CEE socket, straight 400V/ 16A, 6h, 5poles.
- Illuminated 2poles switch with contactor.

#### Analog 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.
- Frequnecy.
- 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 Analog Readings
385.381.602	with Multifunctional Display
385.381.702	with Mutifunctional Display and USB Interface
385.381.802	with Mutlifunctional 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.

#### Analog Readings:

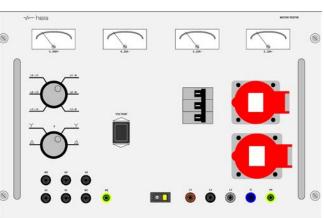
 1x voltage display with selector switch for measuring points and 3x current readings (moving iron class 1,5).

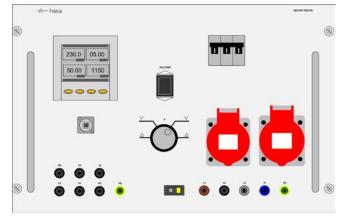
#### **Digital Displays:**

 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.





more	103101	000.00	^	02 IIIE	
SS	Current		Α	Reading	
82	25A	1	1	analog	
84	40A	Ę	5	digital	
86	60A	6	6	Multifunctional Display	
99	100A	7	7	MFD with USB Interface	
		8	8	MFD with LAN Interface	

Motor Tester 385.3 SS A 02

### 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 Varia	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.

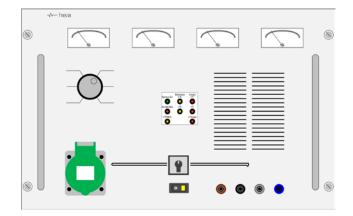
- Sinus source, galvanically isolated from input THD-U: 2-3% at 100% ohmic load.
- Power: 100% duration cos phi 0,8m 120% for 3-5min.
- Adjustable output voltage 100V 250V, stability: +/-1,5%.
- Adjustable frequency 47Hz at 63Hz (sinus), stability: +/-0,1%.
- Text display for voltage, current and frequency.
- 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.

	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: +/-1,5%.
- Output frequency: 400Hz (sinus); stability: +/-0,1%.
- Analog voltage reading with measuring point selector.
- 3x analog 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.

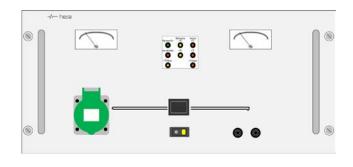


356.406.202 Sinus Frequency Converter 3phase 400Hz 7HE



## 19" INSERTION SINUS FREQUENCY CONVERTER 1PHASE 400HZ

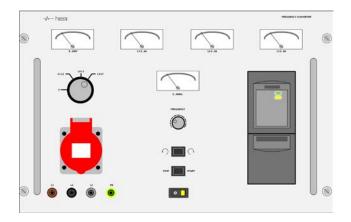
- Microcontroller operated 1phase sinus frequency converter for floating voltage.
- Sinus sources; galvanically isolated from input THD-U: 2-3% at 100% ohmic load.
- Power: 100% duration cos phi 0,8; 120% for 3-5min.
- Output power: 500VA.
- Output voltage: 115V; stability: +/-1,5%.
- Output frequency: 400Hz (sinus); stability: +/-0,1%.
- 2x analog 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.
- Analog voltage readings, class 1,5 with measuring point selector.
- 3x analog 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.

368. AAA . AA S

2

5

S System

19" Cassette 19" Module 7HE

6 19" Panel 2HE

- Overload -, overvoltage and overtemperature protected.
- Offset, approx. 2%.
- Ripple: approx. 120mV p-p.

DC Source - Fixed Voltage

ААА АА Туре

105.05 5V / 5A 14 TE

105.10 5V / 10A 21TE

112.03 12V/3A 14TE

**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

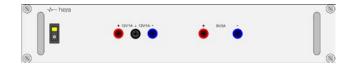
 312.01
 +/- 12V / 1A + 5V / 5A
 14TE

 315.01
 +/- 15V / 0,8A + 5V / 5A
 14TE

- Output on 4mm safety jacks.
- Illuminated 2poles switch (primary).



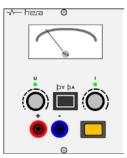






#### 19" CASSETTE ADJUSTABLE DC SUPPLY COMPACT 0...30V / 0...2A

- 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 analog reading class 1,5 (voltage or currrent).



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

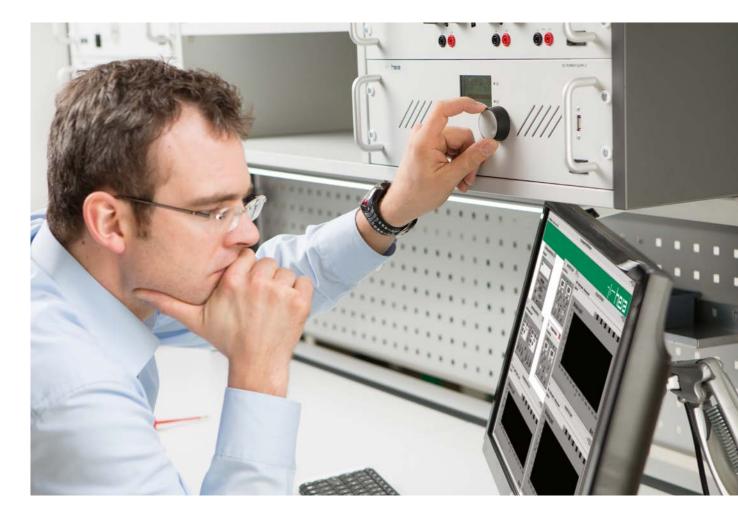
The ideal DC source due to two types of power supplies:

#### DC Supply EXTENDED RANGE:

- powerful switch-mode controlled power supply with ripple < 5mV
- extended voltage and current range up to max. power

#### DC Supply LINEAR:

- classic linear controlled lab power supply with ripple < 1mV</li>
- power ranges 60 300W





#### 19" DC 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.

#### **LINEAR-Version:**

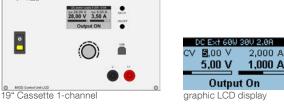
- Linear controlled DC source with transformer switching.
- Silent running fan with temperature-controlled speed at 150W and 300W (60W type fanless).
- Measurement display: 14bit (16384 dots). •
- Measurement resolution: 16Bit (65536 dots). •
- Ripple (at Ia = 50%): <0,7mV<sub>BMS</sub>.
- Set time (load step 10-90% la, at 50% Ua): <120µs.
- External voltage protection: 100V / 50V (60W). •

#### 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).



2





19" Insertion 2-channel

DC Supply ICOM LINEAR	36 A. LLL. S 03	
A Channels	LLL Voltage / Current	S System
1 1-Channel 42TE / 3HE	<b>302</b> 0 - 30V / 0 - 2A	1 19" Cassette
2 2-Channel 63TE / 3HE	<b>305</b> 0 - 30V / 0 - 5A	3 19" Module 7HE (only 1-channel)
3 3-Channel only 3HE	<b>310</b> 0 - 30V / 0 - 10A	4 19" Insertion
	<b>605</b> 0 - 60V / 0 - 5A	



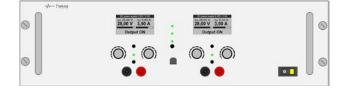
#### 19" DC SUPPLY **EXTENDED RANGE**

- Background illuminated LCD display for the simultaneous 4digit display of boltage 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<sub>BMS</sub>.
- 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).



DC Supply EXTENDED RANGE	36 A.LLL. S 02		
A Channels	LLL Voltage/ Current	S System	V Interface
1 1-Channel 42TE / 3HE	<b>406</b> 100W / 0 - 42V / 0 - 6A	7 19" Cassette	<b>2</b> 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" DC POWER 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 x I is not exceeded).
- 5" color TFT display with touch function and 2 rotary switches for intuitive operation.
- Rear sided USB LAN and analog interface.
- Incl. Modbus and LabView driver.
- Rear sided high current terminal clamp.
- Dielectric strength: 3750V<sub>RMS</sub> (AC input to DC output).
- Dimensions: 483 x 89 x 470mm (WxHxD).

#### NOTE: Mind the depth when choosing a rack!



110 - 240V +/-10%

≤ 0,05% FS (0-100% load)

≤ 0,1% FS (0-100% load)

max. 95%

see table

≤ 0,02% FS

#### **Technical Data:**

- Operating voltage:
   with active PFC
- Efficiency:

•

•

- Ripple CV
- Load balancing CV:
- Load balancing CC:
  - Stability CV:
    - Stability CC:
      - ≤ 0,02% FS
    - Rise time CV:  $\leq$  20 ms (10-90%)
  - Rise time CC:  $\leq 10 \text{ ms} (10-90\%)$

DC Power Sup	ply 2HE	1500W	
365.150.061	1500 W / 0 .	60 V / 0 60 A / 10m\	/ <sub>RMS</sub>
365.150.081	1500 W / 0 .	80 V / 0 60 A / 10m\	/ RMS
365.150.201	1500 W / 0 .	200 V / 0 25 A / 30m	1V <sub>RMS</sub>
365.150.361	1500 W / 0 .	360 V / 0 15 A / 30m	1V <sub>RMS</sub>
365.150.501	1500 W / 0 .	500 V / 0 10 A / 40m	1V <sub>RMS</sub>
365.150.751	1500 W / 0 .	750 V / 0 6 A / 50m\	/ RMS

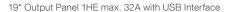
DC Power Supp	ly 2HE 3000W	
365.300.061	3000 W / 0 60 V / 0 120 A / 10mV <sub>RMS</sub>	
365.300.081	3000 W / 0 80 V / 0 120 A / 10mV <sub>RMS</sub>	
365.300.201	3000 W / 0 200 V / 0 50 A / 30mV <sub>RMS</sub>	
365.300.361	3000 W / 0 360 V / 0 30 A / 30mV <sub>RMS</sub>	
365.300.501	3000 W / 0 500 V / 0 20 A / 40mV <sub>RMS</sub>	
365.300.751	3000 W / 0 750 V / 0 10 A / 50mV <sub>RMS</sub>	

#### 19" OUTPUT PANEL FOR DC POWER SOURCE 1HE

- 2x isolated 4mm jacks fully wired to the DC power source.
- 2x sense 4mm safety jacks (min. 32A output current).
- LAN / USB interface.
- Dimension: 483 x 44,45 x 100mm (WxHxD).



0 🗖 0



- - - -

19" Output Panel for DC Power Source b	365.000. <mark>A 1</mark> 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	
7 2x 4mm Clamp (max. 200A) + Sense	6 LAN Interface CAT6	



## 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<sub>ss</sub>.
- Output at BNC sockets (Ri = 50Ω).



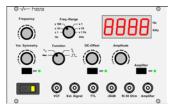
380.820.102 Function Generator Compact 200kHz 21TE

## 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 5 $\Omega$ .
- Short-circuit proofed due to retracted current characteristic.
- Max. output voltage 40V<sub>ss</sub>.





#### 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





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.
- 10µHz 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.



72/3



#### 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 1µHz 20MHz, harmonic distortion <0.2%.
- Frequnecy range square 1µHz 5MHz, rise time <20ns.
- Frequncy range triangle 1µHz 150kHz.
- Frequency range arbitrary 1µHz 5MHz, resolution 1µHz.
- Waveform storage 4kpts.
- Impedance 50Ω.
- Sweep function 1ms 500s.
- Internal modulation AM/ FM/ PM/ FSK.
- Amplitude: 2mV<sub>pp</sub> 10V<sub>pp</sub> (channel 1)/ 2mV<sub>pp</sub> to 3V<sub>pp</sub> (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 illuminiated 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, trigangle, square, saw tooth, pulse, trapezium.
- Frequnecy 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<sub>ss</sub> (max. 1MHz), max. 3V<sub>ss</sub> at 10MHz.
- Resolution: 12bit.
- Duty cycle: 0,1 % ... 99,9%.
- DC Offset: ± 7,5V.
- Frequnency measurement: max. 50MHz.
- Illuminated 2poles switch.
- Front side with USB -, rear side with LAN interface.
- LabView driver and operting 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: 10µV 1000V.
- Voltage AC TrueRMS: 10µV 700V.
- Current DC: 10nA 20A .
- Current AC TrueRMS: 10nA 20A.
- Fuses for current inputs.
- Resistance: max. 50MΩ.
- Frequency: 100µHz 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 operting software, compatible with IMODdesktop / IMODmobile for remote use.



604.000.100: Immerson Sensor -70 ... +250°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	Immerson 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:  $600\Omega...60M\Omega$ . •
- 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.







### 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:  $200\Omega$  max.  $20M\Omega$  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 momory.



LCR Meter 2HE

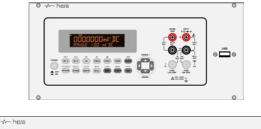
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#### 19" PRECISION MULTIMETER PICOTEST

- Dual display for the simultaneous presentation of two seperate measuring values.
- Resolution: 61/2 digits.
- 2-wire- / 4-wire-resistance measurement.
- 5000 measurements/ sec. at 41/2 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 Picotest		
371.711.402	19" Cassette 56TE	
372.711.402	19" Insertion 3HE	

### 19" PRECISION MULTIMETER KEYSIGHT

- Resolution: 61/2 digit, accuracy (max drift): 75ppm.
- Bright, very good readable, high resolution graphical color display, 109mm digaonal for presenting measuring curves, histograms, bar diameters, statistics and mathemaitcal funcions.
- Measuring rate max. 1.000 per sec.
- Voltage DC: 100mV 1.000V / resolution at 1µV.
- Voltage AC: 100mV 750V / resolution at 1µV.
- Current DC / AC: 100 $\mu$ A 10A / resolution at 1nA.
- Resistance  $100\Omega 100M\Omega$  / resolution at  $1m\Omega$ .
- Frequency / period 3Hz 300kHz.
- Capacity measurement 1nF to 100µF.
- Themperature with optional RTD/PT100 and thermistor.
- Constant measuring voltage of 5V (LED) diode and -arrays.
- Reduction of distortion and measuring errors with Truevolt technology.
- Drag-and-drop-data transfer via USB.
- I/O-Interface: USB, rear sided LAN with external triggering.

#### > More types and brands on demand, e.g.:

- 34450A: 51/2 digit
- 34460A: Current measurement max. 3A
- 34465A: Thermoelement for temperature measurement
- 34470A: 71/2 digit resolution and thermoelement for temperature measurement





#### Precision Multimeter 34461A

371.702.202	19" Cassette 56TE
372.702.202	19" Insertion 3HE



### 19" 2-CHANNEL DIGITAL STORAGE OSCILLOSCOPE PEAKTECH

Digital storage oscilloscope with high resolution color display, background illuminated, high band widht 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.
- VGA adapter for the connection of an external monitor.
- LAN interface for networks integration.
- Autoset and autoscale function.
- Big internal memory 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.

D	igital Storage Oscill	loscope	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	



#### other brands and types available



# 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 (21Tl

## 19" CASSETTE CONSTANT VOLTAGE SOURCE

- Selector for 1V, 10V and 0...30V.
- Short cirucit 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. Analog 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. immerson 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)



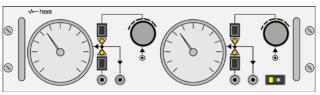


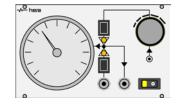


- Precision regulator.
- Selector for internal or external supply with 3/2-magnetic valve and status LED.
- Inlet and outlet with selfclosing quick-connectors 4/6mm.
- Analog pressure gauge class 1,0.
- Illuminated 2poles switch.
- Completely hosed, with open end 4/6.

#### Pressure Calibrator, Analog

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)







hera

## 19" CASSETTE DIGITAL MANOMETER / DIGITAL CALIBRATOR

- Digital pressure instrument with sensor for the measurement of difference -, relative - and absolute pressure.
- 3<sup>1</sup>/<sub>2</sub> 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.

#### 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 Manometer / Digital Calibrator

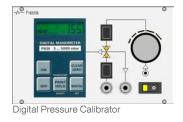
383.002.002	Digital Manometer 0 - 2000mbar (28TE)
383.010.002	Digital Manometer 0 - 10bar (28TE)
383.002.102	Digital Calibrator 0 - 2000mbar (49TE)
383.010.102	Digital Calibrator 0 - 10bar (49TE)

## 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 witih 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.

#### 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



#### 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.

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## 19" SUB RACK FOR LS2000 INSERTIONS

- 19" sub rack for 1x double insertion or 2x single insertion.
- 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.

341.007.302

19" Sub Rack for LS2000 Insertions 7HE





#### 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

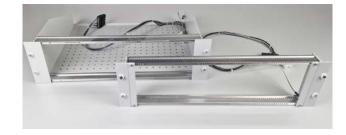


### 19" SUB RACK FOR 19" EP/ MP MODULES

- 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), optionally with moun ting panel for components.

19" Sub Rack for 19" EP/MP Modules

341.003.102	1½ EP (3HE)
341.003.202	11/2 EP (3HE) with mounting panel
341.005.102	3MP (5HE)
341.005.202	3MP (5HE) with mounting panel



## 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.











## CHAPTER 12: LS2000 INSTRUMENT RACKS & MODULES

- 406 LS2000 Standard Bench Rack
- 410 LS2000 Bridge Bench Rack and Upper Attachment
- 411 Carrying Case, Power Cords and Sockets with Flap
- **412** Blank Panels and Blank Plug-In Units
- 413 Mains Panels and Emergency Stop Modules
- 414 Socket Panels
- **417** Measuring Unit with Analog and Digital Reading
- 418 Continuity Tester
- 419 Soldering Station and Soldering Fume Extraction
- 421 R-Decade or L- and C-Decade
- **422** Variable AC Sources 1 phase

- 425 Variable AC Sources 3phase
- 426 Motor Tester with Variacs
- 428 Sinus Frequency Converter
- 429 Fixed DC Supply and DC High Current Sources
- **430** Lab Power Supply ICOM (Extended-Range and Linear)
- 431 Function Generator
- 432 Multimeter, Calibrator and LCR-Meter
- 434 Appliance Tester VDE 0701/0702
- 435 Pressured Air Supply / Pressure Calibrator
- 436 Load Resistance and Test Speaker



#### 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.
- Depht: 300mm / 385mm, height: 468mm.

LS2000 Standard Bench Rack 211. BBB . 500

#### **BBB** Width

t steel rear panel (durable e glands.		
eight: 468mm.		
211. <mark>BBB</mark> . 500		

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.





▶ see LS2000 Standard Rack for details







#### LS2000 BENCH RACK WITH SHELF

- Equipment WE Board: 2x WE size 3 + 1x WE size 4.
- Width: 1800mm; depth: 300mm/385mm; height: 468mm.

LS200	LS2000 Bench Rack with Shelf 222.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

#### LS2000 BENCH RACK WITH END SHELF

• Width: 1800mm; depth: 300/385mm; height: 468mm.

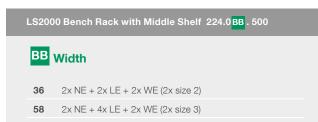




▶ see LS2000 Standard Rack for details

#### LS2000 BENCH RACK WITH MIDDLE SHELF

• Width: 1800mm; depth: 300/385mm; height: 468mm.





▶ see LS2000 Standard Rack for details







#### 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.



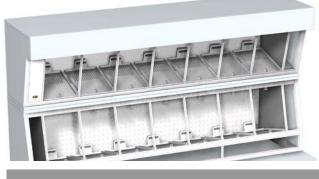
LS20	000 Bridge Bench Rack	229. <mark>BBB</mark> .	5 <mark>E</mark> 0		
BB	Width		Corner Solution	E	Version
126	1260mm / 3x NE + 5x LE	500	Corner 1000 x 1000 / 3x LE	0	with WE Board (only 1485mm and 1800mm)
148	1485mm / 3x NE + 6x LE			1	no WE Board
180	1800mm / 4x NE + 7x LE				

Corner:

#### 500

### 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   E







#### **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 Ca	bles
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 (5x2,5mm <sup>2</sup> ) 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 (2x1,5mm <sup>2</sup> ), open end
291.001.550	3m Emergency Stop Cable (2x1,5mm <sup>2</sup> ), 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

## 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	





flexible cables with / without plug completely connected to bench rack

▶ international plugs available







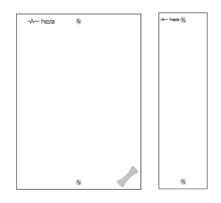
#### LS2000 BLANK PANELS

- 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

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- 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



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### LS2000 EMPTY PLUG-IN UNIT

- Aluminium front panel, creme white powder coated, whith 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



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#### 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!

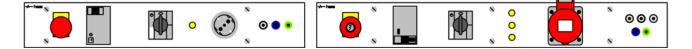
#### LS2000 Mains Panel NE

#### 1phase, RCD Type A, Emergency Stop, Key Release 231.062.100 231 062 102 1phase, RCD Type A, Emergency Stop, Rotation Rel. 231.062.103 1phase, RCD Type B, Emergency Stop, Rotation Rel. 1phase, RCD Type B, Emergency Stop, Key Release 231.062.104 231.072.100 3phase, RCD Type A, Emergency Stop, Key Release 231.072.102 3phase, RCD Type A, Emergency Stop, Rotation Rel. 3phase, RCD Type B, Emergency Stop, Rotation Rel. 231.072.103 231.072.104 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

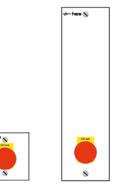


• other rated currents or voltages available!

## 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 Emer	rgency Stop Button
231.006.300	NE
233.106.300	WE size 1

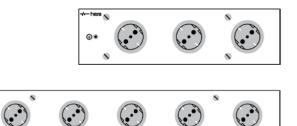




#### LS2000 SOCKET PANEL

- 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

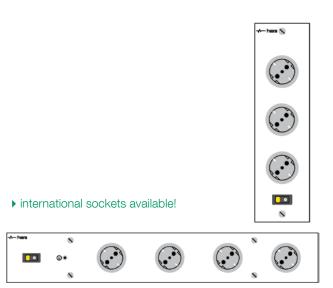


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### LS2000 SOCKET PANEL WITH SWITCH

- 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.

n Switch
NE / 3x PE sockets
WE size 2 / 2x PE sockets
WE size 3 / 4x PE sockets
WE size 4 / 5x PE sockets



## 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).
- Illuminate 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





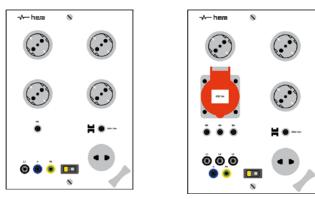


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## LS2000 SOCKET MODULE AND ISOLATING TRANSFORMER

- Plug-in unit with aluminium front panel creme white powder coated; abrasion proofed and chemical resistand 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.

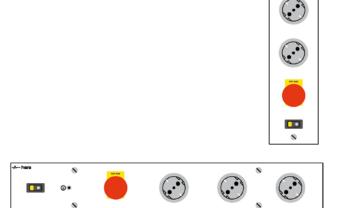
Socket Module aı	nd Isolating Transformer
241.229.101	LE 1 phase, 1x Universal, 4x PE sockets
241.389.301	LE / 3phase 1x Universal, 1x CEE, 3x PE sockets



## 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 Jacks233.321.501WE size 3 / 3x PE sockets and Safety Jacks233.421.501WE 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.

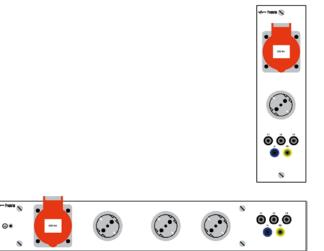
Socket Panel with	CEE Socket and Switch
233.341.401	WE size 3 / 2x PE sockets
233.441.401	WE size 4 / 3x PE sockets



# 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 Switch233.341.201WE size 3 / 3x PE sockets233.441.201WE size 4 / 4x PE sockets



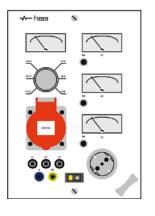


### LS2000 ANALOG MEASURING MODULE

- 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.

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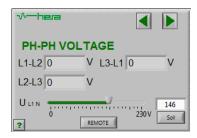
Multifunctional Measuring Module		
241.389.502	LE / with USB Interface	
241.389.602	LE / no USB Interface	

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: ±0,2%.
- Phase current TRMS (calculated current of neutral); accuracty: ±0,2%.
- Power (active -, reactive -, apparent power each phase and in total); accuracy: ±0,5% of active values.
- Power factor (each phase and in total); accuracy: ±0,5%.
- Frequency (frequency measurement of measured voltage); accuracy: ±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 funcitons.
- Hour counter (total and service hours, programmable).



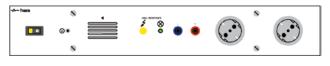


## LS2000 ELECTRONIC CONTINUITY TESTER

- High ohmic, electronic continuity tester, poled.
- Resistance range: 0...200kΩ 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...200kΩ 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<sub>AC</sub>.
- 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.

ΙF

• Version with 120V available!

Analog Soldering Station

234.352.501

234.452.101 280.004.101





## LS2000 DIGITAL SOLDERING STATION

WE size 3 / 3x PE sockets WE size 4 / 3x PE sockets

- 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

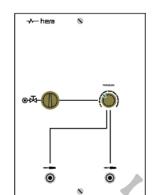


## LS2000 PNEUMATIC SOLDERING FUME EXTRACTION

- 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.



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!



#### ccessory

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

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## 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<sub>AC</sub>; 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



#### 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.

#### <u>C-Decade:</u>

- 5x decade swithces for precision capacitors in the range of 100pF, 1nF, 10nF, 100nF, 1 $\mu\text{F}$
- 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	



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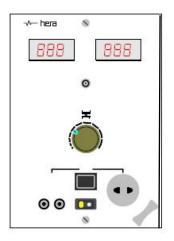
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## LS2000 AC SOURCE FLOATING, 1PHASE

- 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		ng AC Source 1phase 2	42.2 <mark>S</mark>	S. A 01
	SS	Туре	Α	Version
	53	0-270V/3A LE	1	analog
	56	0-270V/5A LE	5	digital
	76	0-270V / 16A Double-LE (3p	hase re	equired)

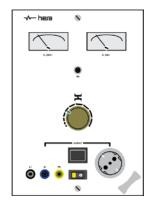


## LS2000 AC SOURCE,1PHASE

- 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, 1pha	se LE
242.259.101	LE / 0-270V / 10A analog
242.259.501	LE / 0-270V / 10A digital

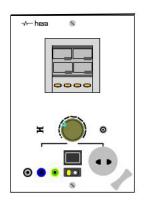






#### LS2000 AC SOURCE, 1PHASE, FLOATING WITH MULTIFUNCTIONAL DISPLAY

- 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!

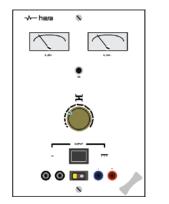


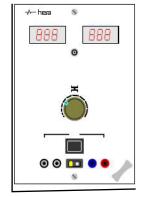
	AC Source,	1phase	with M	ultifuncti	ional	Display
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242.253.602	LE / 0-270V / 3A
242.256.602	LE / 0-270V / 5A
242.276.602	Double-LE / 0-270V / 16A
242.276.702	Double-LE / 0-270V / 16A with USB Interface

## 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.





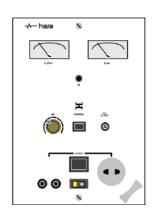
AC/DC Source	e, 1phase LE
246.039.101	LE / floating 0-30V / 10A analog
246.253.101	LE / floating 0-270V / 3A analog
246.253.201	LE / floating 0-270V / 3A + 0-60V / 10A analog
246.253.401	LE / floating 0-270V / 3A + 0-60V / 10A digital
246.256.101	LE / floating 0-270V / 5A analog
246.256.501	LE / floating 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<sub>DC</sub> 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 Sou	ırce, 1phase LE
252.256.101	LE / 0-270V / 5A analog
252.256.401	LE / 0-270V / 5A digital

# LS2000 VARIABLE AC SOURCE, 3PHASES

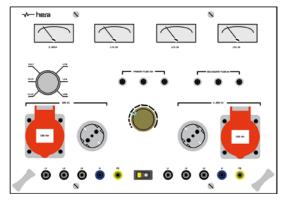
• Star-connected 3phase variac for an output voltage between 0...100%. Protected by front side operated thermomagnetic fuses.

#### Fixed Ouputs:

- 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.

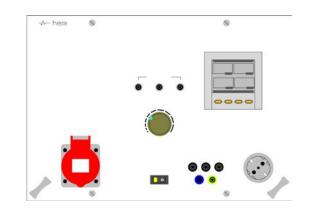


Variable AC So	urce, 3phases	Double-LE
243.385.301	0-450V / 5A	
243.389.301	0-400V / 10A	
243.385.501	0-450V / 5A	
243.389.501	0-400V / 10A	





- 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.

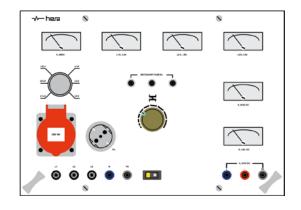


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Variable AC Sour	ce, 3phase with Multifunctional Display
243.385.602	0-450V / 5A no Interface
243.385.702	0-450V / 5A with USB-Interface
243.389.602	0-400V / 10A no Interface
243.389.702	0-400V / 10A with USB-Interface

#### 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.



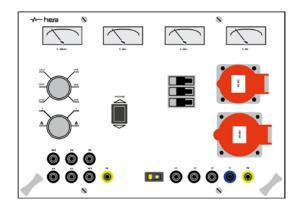
AC/DC Source, 3	ohases	Double-LE
247.381.301	0-450V / 1,5A; floating, analo	g
247.385.301	0-450V / 5A analog	
247.389.301	0-400V / 10A analog	
247.385.501	0-450V / 5A digital	
247.389.501	0-400V / 10A digital	





#### LS2000 MOTOR TESTER, ANLAOG

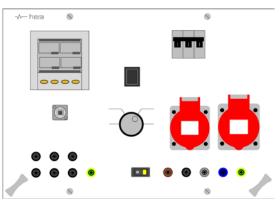
- Rocker switch for the stepless adjustment of the external variac (variac not included!).
- 7x high voltage jacks arranged as motor terminal board (U1, U2, V1, V2, W1, W2 and PE).
- Star -/ delta- and rotation direction selector switch.
- More output via high voltage jacks (L1, L2, L3, N, PE) and CEE socket.
- 3x analog current reading L1, L2, L3 and voltage reading with mesauring point selector (moving iron class 1,5).
- Illuminated switch with contactor.



Motortester analog			Doubl	e-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



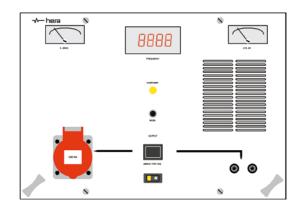




# LS2000 SINE FREQUENCY CONVERTER, 1PHASE

- 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	

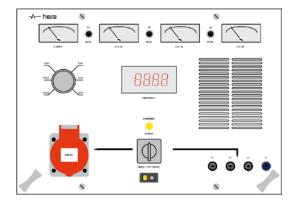


# LS2000 SINE FREQUENCY CONVERTER, 3PHASES

- 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 analog current reading L1, L2 and L3 and analog 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 combinaton with other international standard sockets and the suitable current limiters, appliances for different country standards can be tested.

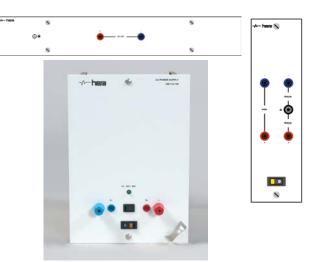


920.114.302



## 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.

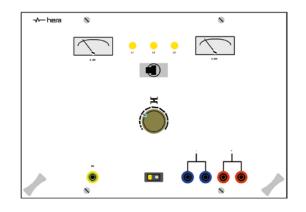


Fixed DC	Supply 2	3 S.LLL.LLL	l -				
S	Туре	LLL.LLL	Voltage / Currer	nt			
0	LE	105.032	5V / 3A	113.112	13,5V / 11,2A	148.022	48V / 2,3A
1	NE	105.052	5V / 5A	113.142	13,5V / 14,9A	148.042	48V / 4,2A
3	WE size 3	105.102	5V / 10A	124.012	24V / 1,5A	212.032	+ 12V / 3A + 5V / 6A
		112.032	12V / 3A	124.032	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.









#### LS2000 DC 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 DC Supply EXTENDED RANGE:

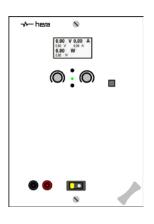
- Switchmode lab power supply; up to 160W fanless.
- Stability at 0-100% load: <0,8%.
- Stability at 10% mains alternation: <0,02%.
- Ripple: <5mVrms.
- Set time 10-100% load: <1ms.
- Overvoltage protection: 0...46,2V.
- Accuracy: <0,2%.
- Nominal values for current and voltage adjust one another so the max. power is not exceeded.

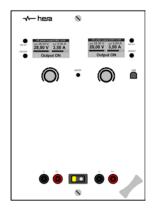
Technical Data DC Supply LINEAR:

- 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 la = 50%): <1mVrms.
- Set time (load step 10-90% la, at 50% Ua): <50µs.
- External voltage protected: 100V / 50V (60W).

DC Supply ICOM EXTENDED RANGE	26 A . LLL .803	
A Channels	LLL Voltage / Current	
1 Single	<b>406</b> 100W / 0 - 42V / 0 - 6A	<b>803</b> 100W / 0 - 84V / 0 - 3A
2 Double	410 160W / 0-42V / 0 - 10A	<b>805</b> 160W / 0 - 84V / 0 - 5A
	420 320W / 0 - 40V / 0 - 20A	

DC	Supply ICOM LINEAR	26 A. LLL 403	
Α	Channels	LLL Voltage / Current	
1	Single	<b>302</b> 0 - 30V / 0 - 2A	<b>310</b> 0 - 30V / 0 - 10A
2	Double	<b>305</b> 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</li>
   100kHz); < 3% (100kHz 1MHz).</li>
- Linearity error: < 1% (max. 100kHz); < 5% (100kHz -1MHz).
- Symmetric error: < 1% (max. 100kHz); < 5% (100kHz 1MHz).</li>

Option Power Amplifier:

- Switchable in the range of 0,1Hz...100kHz.
- 40W<sub>eff</sub> continuous power with sinus at 5W.
- Short circuit proofed due to retracted current curve.
- Max. output voltage 40V<sub>ss</sub>.

Function Generat	tor 1MHz 1LE	
271.653.101	no Power Amplifier	
271.653.201	with Power Amplifier	

- Rise and fall time: < 80ns at 50 $\Omega$  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; TTLoutput, -30dB input, 50Ω output.





# 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<sub>SS</sub> (max. 1MHz), max. 3V<sub>SS</sub> at 10MHz.
- Resolution: 12 Bit.
- Duty cycle: 0,1% ... 99,9%.
- DC Offset: ± 7,5V.
- Frequency measurement: max. 50MHz.





### 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<sub>DC.</sub>
- Bandwidth: V<sub>AC</sub> TRMS 2kHz.
- Volage: V<sub>DC</sub> 100µV ..1000V. and V<sub>AC</sub> TRMS 100µV ..1000V.
- Current:  $A_{DC}$  10µA ...10A and  $A_{AC}$  TRMS 10µA ...10A.
- Resistance:  $100m\Omega \dots 60M\Omega$ .
- 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 / realative (zero).
- Autoranging or manual range selection.
- Automatic blocking sockets ABS.

#### Precision Multimeter TECH 41/2 digit TRMS:

- 3 sockets with automatic blocking ABS.
- Autoranging 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, masx.  $0,01m\Omega$  simulation.
- Resolution of high resitance measurement max. 30mΩ.
   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<sub>DC</sub> 200mV /2 / 20 / 200 / 600V; 100µV; +/- 0,5% + 1 dgt.
- V<sub>AC</sub> 200mV / 2 / 20 / 200 / 600V; 100µV; +/- 0,8% + 3 dgt.
- A<sup>AC</sup><sub>DC</sub> 20μA / 2/ 200mA / 10A; 10nA; +/- 0,8% + 1 dgt.
- A<sub>AC</sub> 20μA /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 / 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, diodes and continuity test with buzzer.
- Incl. lab cords, multifunctional adapter, temperature probes.

#### LCR Meter:

- 41/2 digit background illuminated 27mm LCD display.
- Resistance: 110Ω / 1,1 / 11 / 110kΩ / 1,1 / 11 / 110MΩ, ±1,2% + 8 dgt., 10mΩ
- Capacity: 11 / 110nF / 1,1 / 11 / 110µF / 1,1 / 11 / 110mF, ±3,0% + 10 dgt., 1pF
- Inductivity: 11 / 110mH / 11 / 20 H, ±2,0% + 0,2mH, 1nH
- Measuring cycle: 3 4x per sec.
- MIN / MAX and HOLD function.
- Relative value measurement.
- Diode and continuity test function.



Digital Meter, LCR Meter and Calibrator



DM62





CAL



DMM+LCR



LCR Meter

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, iincl. 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, 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.

272.710.602 Digital Multimeter ICOM (LE)

604.000.100: Immerson 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 Immerson 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 funtion test with real-effective-power indication in only one step.
- Instantaneous pole reversal.

#### Measurements (usage failure 5% v.M. + 1% v.B.)

- Protective conductor: 0,000Ω...4,000Ω test current: 200mA DC / open-circuit voltage 10V.
- Insulation resistance: 0,00MΩ...20,00MΩ, no-load voltage: 50V, 250V, 500V short circuit current: 1mA.
- Integrated leakage current switch-off, difference current > approx. 20 mA
- Leakage current: 0,00mA...20,00mA, open circuit voltage: approx. 200V AC (max. 2,5 mA).
- 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:

- 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.

Appliance Tester and Test Software		
	277.002.903	Appliance Tester VDE 0701/0702 2MP
	338.700.309	Windows Software Safety-Remote
	338.701.308	Android Data Base App Test-Master





Windows Software Safety-Remote



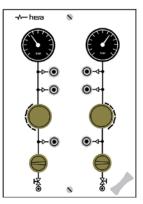
Android Data Base App Test-Maste



#### LS2000 PRESSURED AIR SUPPLY

- 2x self-closing, unregulated outlets (hose 6/4).
- Adjustable pressure regulator 0-3bar with anlaog pressure gauge 4bar.
- 2x self-closing, regulated 3bar outlets (hose 6/4).
- Ajdustable 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.



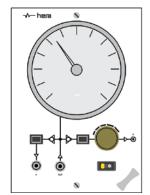


Pressured Air Supply	
288.121.100	3 / 10bar / LE
288.321.100	3 / 10bar / WE size 3
288.421.100	3 / 10bar / WE size 4



# LS2000 ANALOG PRESSURE CALIBRATOR

- Precission pressure regulator.
- 2x 2/3 magnetic valves with switches. LEDs for status indication.
- Analog 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 swich for central on/ off.





Analog Pressure Cal	ibrator	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.
- 31/2 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 freatures:

- 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 absulute pressure.
- Completely hosed with open end 4/6.
- Other pressure ranges on demand.

Digital Pressure Cali	brator	LE
282.001.000	Digital Pressure Me	ter 0 - 1000mbar
282.010.000	Digital Pressure Me	ter 0 - 10bar
282.001.100	Pressure Calibrator	0 - 1000mbar
282 010 100	Digital Pressure Cal	librator 0 - 10bar

# LS2000 LOAD RESISTANCE 50W

- Panel with four stepless adjustable load resistors 50W (test voltage: 2,5kV).
   0-10Ω / 50W; 2,2A
   0-100Ω / 50W; 0,7A
   0-1kΩ / 50W; 0,2A
   0-10kΩ / 50W; 0,1A
- Thermal circuit breaker for overload protection.
- Each resistor has two jacks for end taps and one jack for middle tap.

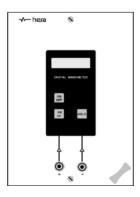


Load Resistance 50W

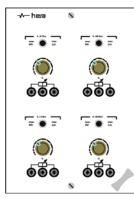
#### LS2000 LOAD RESISTANCE 300W

- 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.

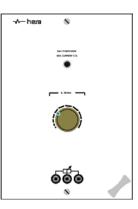
Load Resistar	nce 300W LE
277.202.100	0 - 100hm / 5,4A
277.202.200	0 - 1000hm / 1,7A
277.202.300	0 - 1kOhm / 0,5A
277.202.400	0- 10kOhm / 0,2A















#### CHAPTER 13: ACCESSORY

- 438 Swivel Chairs Standard and ESD
- 440 ESD Chairs LC
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- 448 LED Workstation Lamp
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- 453 Lamps with Articulation Arm
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- **474** ESD Mats and ESD Accessory
- 476 ESD Monitoring
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- 484 Soldering Smog Extraction
- 487 Test Hood and Test Cabin



#### 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.

Swivel Chair TEC (please choose your color)		
181.711. <b>B</b> 00	TEC with Synchron Technology ST	
181.711. <b>B</b> 05	TEC with Synchron Technology AB	
181.712. <b>B</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)	



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.

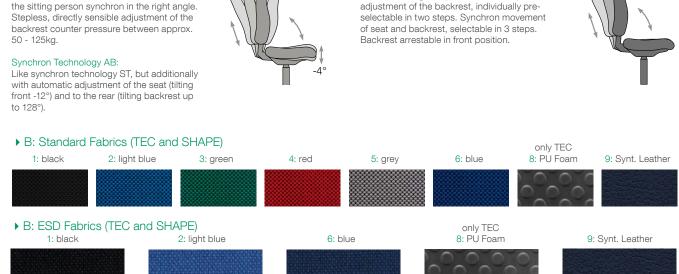




ESD Swivel Chair TEC (please choose your color)		
181.715. <b>B</b> 00	TEC ESD with Synchron Technology ST	
181.715. <b>B</b> 05	TEC ESD with Synchron Technology AB	
181.716. <b>B</b> 00	TEC ESD with Weight Adjustment AS	
181.014.000	ESD Multifunctional Armrests, height - (10cm), width - (5cm) and depth 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)	

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Automatic Weight Adjustment AS:

Automatic weight dependant counter pressure



# 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:	Ø71cm
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.

Swivel Chair	SHAPE (please choose color)
181.413. <b>B</b> 00	SHAPE with Synchron Technology ST
181.414. <b>B</b> 00	SHAPE with ST and High Backrest
181.413. <b>B</b> 05	SHAPE with Synchron Technology AB
181.414. <b>B</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)



ESD Chair SHAPE with high backrest

ESD Swivel	Chair SHAPE (please choose color)	
181.417. <b>B</b> 00	SHAPE ESD with Synchron Technology ST	
181.418. <b>B</b> 00	SHAPE ESD with ST and High Backrest	
181.417. <b>B</b> 05	SHAPE ESD with Synchron Mechanics AB	
181.418. <b>B</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°).





# ESD SWIVEL CHAIR LC WORK

Hardwaring 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		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

Hardwaring 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 hardwaring 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 in grey.
- Polished aluminium base.
- Ergonomic backrest with "up-down" adjustment and lumbar support.
   Standard height: 47cm
  - High backrest: 55cm
- Height and depth adjustable 3D armrests with adjustable rest angle. Upholstered with soft polyurethan or fixed armrests.
- Standard version with sitting height between 42 55cm.
- Counter version with height adjustable aluminium foot ring for a sitting height between von 58 83cm.

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 utillization in sensitive ESD areas with cleanroom category 5 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)	





#### **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

load depending, soft casters for hard floors Casters:

Note: for safety reasons the stand-up seat is only available with soft casters.

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 Backrest: 35 x 25cm (WxD) 15cm

#### Stand-Up Seat ECONOMY

181.431.001 181.431.002

:

with polyamid base 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





Stand-Up Seat Sitness



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# **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. <b>B</b> 02	Visitor Chair, 4-Legs
181.311.002	Arm Rests (W: 61cm)







#### 8: blau

**PAGWOOD** OFFICE CHAIR

- Ergonomic shaped pagwood.
- Stepless adjustable sitting height with gas-lift.
- 5 beam base made of aluminium die-cast.
- Load-depending blocking safety casters.
- Seat tilt adjustment: 0-18°
- Sitting height: 42-51cm
- Backrest: 53cm

#### agwood Office Chair

182.303.101	Fabrics
182.303.201	Leather







# 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. <b>C</b> 01	with Casters (sitting height + 2cm)
182.265. <b>C</b> 01	no casters



# 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.

Colors on demand!



#### 182.305.901 with Casters

Student Swivel Chair, Wood

182.300.901

with Casters (sitting height + 3cm) 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. <b>B</b> 02	Swivel Chair ECONOMY
	181.020.002	Ring-Armrest
	181.023.002	Height Adjustable Armrest
	181.114.002	Option: Soft Casters for Hard Floors



- 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. <b>B</b> 01	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		

# 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 Synchro Pro

	181.313. <b>B</b> 01	Swivel Chair Syncro Pro
	181.024.001	Height Adjustable Armrest
	181.114.001	Option: Soft Casters for Hard Floors

#### ▶ B: Color (Economy, Top Pro, Syncro Pro)







**Ring-Armrests** 

Seat height:	42-55cm
Seat width:	45cm
Seat depth:	43cm
Backrest height	: 57cm





Height Adjustable Armrests

Seat height:	42-55cm
Seat width:	45cm
Seat depth:	46cm
Backrest height:	45cm



Seat height:	45-55cm
Seat width:	48cm
Seat depth:	48cm
Backrest height:	55cm



#### 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: 2000m.
- 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	



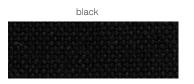


Partition Element with both types of feet in ESD



Partition with sound protection, integrated in perforated backplane

#### Fabrics



anthracite







# 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 benchtop.

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 benchtop (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 Osram LEDs, 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).



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

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

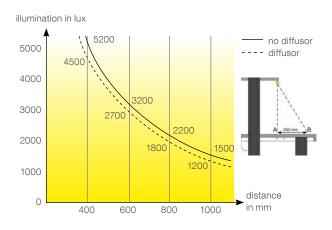
#### B Width (Lumen)

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



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







LED with Diffusor / LED without Diffusor

	А Туре
	1 no Diffusor
	for a maximum of illumination
	2 with Diffusor
ner	for homogeneous illumination without shading
mer	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, 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 benchtop.

#### 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 benchtop (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:

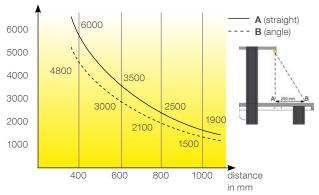
- Dimmable brightness 0...100%. •
- Stepless adjustable color temperature between 2.700K (warm white) to 5.500K (cold white).
- 2-Channel microcontroller controlled PWM dimmer.

#### **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.



illumination in lux





IMOD Integration (completely controlled with IMOD Control-Unit)



adjustable color temperature: cold white (5.500K)

PROFILED Workstation Lamp PR 456. B 81. M 0 A

#### В

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





to warm white (2700K)

В	Width (Lumen)	Μ	Version	Α	Туре
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 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, aluminim 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



Type with bench clamp



Sliding adapter in ENERGY profile





Type with PROFI sleeve and PROFI swivel arm



Sliding adapter in multimedia support





# 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 <mark>BB</mark> .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



- 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

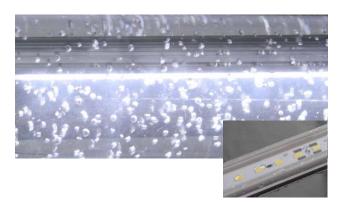
458.000.100



#### 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 shadefree 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.

PR	OFI Multifunctional Lamp LED	458.0	BB . A 01
BB Width (Lamp)		Α	Туре
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).

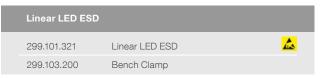
Linear LED Standard		299.101.3 V A	
V	Version	Α	Туре
3	Linear LED Standard	0	Standard
4	Linear LED Standard TW	5	Dimmable



# 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.



# BENCH CAM FOR MAGNIFIER LAMP DESIGN, VARIO AND 3D

The Bench Cam with adapter for the installation to the magnifier lamps Design, Vario and 3D is used for repair on breadboards:

- simple picture capturing
- continues the 3D view which is also shown with the lamp
- picture capturing, transmission and streaming by help of the software
- Full HD camera with auto focus lense 1080p 1920 x 1080.
- USB 2.0.

Bench Cam with Adapter for Magnifier Lamp299.101.011for Magnifier Lamp Design299.101.021for Magnifier Lamp Vario299.101.031for Magnifier Lamp 3D







# 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	<u></u>
940.710.700	3 Diopter, ESD, 110V (cUL)	<u></u>



#### 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	<u>&amp;</u>
299.101.403	5 Diopter, ESD	<u>&amp;</u>







- 619



#### BENCHTOP SLEEVE FOR LAMPS

• The sleeve is for integration into wooden bodies for holding lamps with Ø 12,7mm bolts.

299.101.210

#### 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.

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491.005.200
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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
  - 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

Keyboard Support

Option Mousepad for Keyboard Support

- Notebook support 400 x 300mm (WxD).
- Keyboard support 470 x 200mm (WxD).
- Durable, light grey powder coating.

491.028.320 491.028.330

491.028.340



491.028.320 Notebook Support



491.028.330 Keyboard Support



491.028.330 + 491.028.340 Keyboard Support with Mouse Pad







۱M

#### **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.

2.620 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

#### 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

Arm with cable clamp







491.057.100



491.057.200 / 210





491.057.400 / 410 / 420 / 430





#### 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



#### 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



# 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 movable 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 postion.
- VESA adapter 75/100 with guick-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.

# TFT SWIVEL ARM PLUS

TFT Swivel Head PLUS:

- Inclinable, tiltable and rotatable; silver colored.
- Reach: 130mm; load: 15kg.
- For the assembly to the PROFI extensions.

TFT Swivel Head PLUS height adjustable:

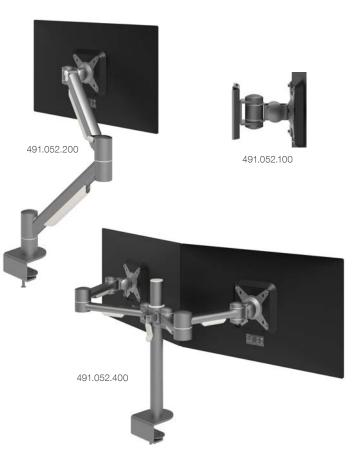
- Dynamic height adjustment due to springed jib.
- For flat screens between 2 8kg.
- Max reach: 557 627mm.
- Incl. bench clamp (5 - 40mm).

TFT Swivel Head PLUS for 2 monitors:

- Two double swivel arms (257 + 160mm).
- Height adjustment with clamp handle (295mm).
- Inclinable: +90°/-90°, tiltable: +90°/-90°, rotatable 360°.
- Load capacity: max. 15kg per monitor.
- Incl. bench clamp (5 40mm).

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





<sup>491.056.950</sup> 



# 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 benchtop, 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.





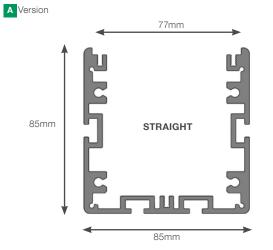
#### **COMPACT** TERMINAL

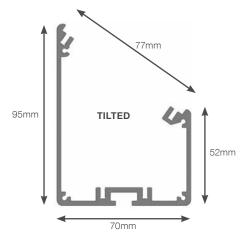
- Aluminium channel with durable, light grey powder coating and side covers.
- Front side prepared for the flexible acceptance of modules in cm raster (=10mm).
- Straight Version:
- Applicable for multimedia support, cable tray or installation to the PROFI profile.

Tilted Version:

• Applicable for the assembly on the benchtop, for the multimedia support with face down sockets, for shelf-incorporaton, in calbe tray or installation to the PROFI profile.







M Installation

1 on benchtop



3 with brackets 4 between profiles

Compact Terminal 29 A .BBB . M 00

	A Version	BBB Width	Μ	Installation
7	Compact Terminal tilted	10 - 230 cm	1	Installed on the Benchtop (equipable width -1cm)
8	8 Compact Terminal straight		2	Installed under Shelf (equipable width -1cm)
		3	Brackets at the Sides (equipable width -9cm)	
297.000.000 : Customized Cable Outlet		4	Assembly between the Extensions (equipable width cm)	



#### KK MODULES

- The modules for the compact terminal alre 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> <li>1fold</li> <li>2fold</li> <li>1fold, no illumination</li> <li>Switch with Lamp Symbol</li> <li>DC Switch 1fold 24V/10A</li> </ul>	4cm 4cm 4cm 4cm 4cm 5cm	
200.020.101 200.021.101 200.025.101 200.026.101	<ul> <li>Emergency Off / Rotation Release</li> <li>Emergency Off / Key Release</li> <li>Off Button (NCC)</li> <li>On Button (NOC)</li> </ul>	5cm	
200.052.XX1	<ul> <li>Automatic Circuit Breaker with Undervoltage Release for Emergency Off Circuit and Voltage Control Lamp</li> <li>XX = Tripping Current</li> <li>Note:</li> <li>1poles circuit breaker is only applicable for reverse protected plugs!</li> </ul>	15cm	
200.040.101 200.041.101 200.041.701 200.041.401	<ul> <li>RCD 2poles 25A / 30mA</li> <li>RCBO 16A/10mA</li> <li>RCBO 13A/10mA</li> <li>RCBO 10A/10mA (over - and residual current protection)</li> </ul>	14cm	
200.050.XX1 200.051.XX1	<ul> <li>Thermomagnetic fuse XX = Tripping Current (1A - 16A)</li> <li>Automatic Circuit Breaker B-Characteristics XX = Tripping Current</li> </ul>	6cm 14cm	
200.060.101 200.061.101 200.063.101	<ul> <li>Miniature Contactor</li> <li>1x Phase Control Lamp (L)</li> <li>3x Phase Control Lamp (L1, L2, L3)</li> </ul>	10cm 5cm 12cm	Schütz C C C C C C C C C C C C C C C C C C C
200.101.101 200.102.101 200.103.101 200.104.101 200.105.101	<ul> <li>1fold PE Socket Type F</li> <li>2fold PE Socket Type F</li> <li>3fold PE Socket Type F</li> <li>4fold PE Socket Type F</li> <li>5fold PE Socket Type F</li> </ul>	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: 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 Other international types on demand!	10cm 16cm 22cm 28cm 34cm	
XXX.XXX.201 200.150.101	<ul> <li>Optionally with Flap for PE Sockets</li> <li>Sockets for Floating Voltage and External Isolating Transformer</li> </ul>	6cm	
200.205.101 200.203.101 200.205.201 200.205.301	<ul> <li>CEE Socket 5poles 16A red</li> <li>CEE Socket 3poles 16A blue</li> <li>Winsta Socket 5poles 16A</li> <li>FSH Socket 5poles 16A</li> <li>Other colors and types on demand!</li> </ul>	10cm 10cm 8cm 6cm	
200.301.101 200.303.101 200.305.101 200.302.101 200.302.201	<ul> <li>4mm Safety Jacks</li> <li>PE Jack</li> <li>3popes (L, N, PE)</li> <li>5poles (L1, L2, L3, N, PE)</li> <li>Output for External DC Sources (+/-)</li> <li>Output for External AC Sources (L/N)</li> </ul>	2cm 6cm 8cm 6cm 6cm	
200.401.101 200.401.401 200.401.201 200.401.301	Quick Connectors for Pressured Air 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	<ul> <li>Module with Keystone Adapter</li> <li>Suitable Keystones: <ul> <li>RJ45 Coupling CAT 6 (angled)</li> <li>RJ45 - Cut / Grip Technology, shielded (F=0: black; 1: red; 2: green; 3: yellow;</li> <li>USB2.0 A-Socket &gt; A-Plug with Cable</li> <li>USB3.0 C-Socket &gt; C-Plug with Cable</li> <li>HDMI Socket &gt; HDMI Socket with Cable</li> </ul> </li> </ul>	d CAT 6 4: blue) e	330.830.200         330.830.400         330.830.500         330.830.500



# KK MODULES

Art-No.	Module	Width	Picture
200.524.101 200.525.101	<ul> <li>USB-Port 4fold 2.0</li> <li>USB-Port 4fold 3.0 Note: USB-Ports with external Power Unit</li> </ul>	15cm 15cm	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
200.541.101 200.542.101 200.543.101	<ul> <li>Sub-D Socket 15poles VGA</li> <li>Sub-D Socket 9poles RS232</li> <li>DVI-I-Socket</li> </ul>	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) • Type J - Swiss (10A) • Type E - Franco/ Belgian (16A) • Type G - 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	• Blank Panle XX = width	cm	
200.800.100 200.800.101 200.810.101	<ul><li>Cable Gland M16</li><li>Cable Gland M20</li><li>Cable Gland M25</li></ul>	4cm 4cm 4cm	
291.001.030 200.835.000	<ul> <li>3m Power Cord (3x 1,5mm<sup>2</sup>)</li> <li>5m Power Cord (3x 1,5mm<sup>2</sup>) with open end</li> </ul>	1cm	
200.835.100 291.001.256	<ul><li>3m Power Cord (3x 1,5mm<sup>2</sup>)</li><li>with Type F Plug</li><li>with Type G Plug</li></ul>	1cm	
291.001.130 200.855.000	<ul> <li>3m Power Cord (5x 2,5mm<sup>2</sup>)</li> <li>5m Power Cord (5x 2,5mm<sup>2</sup>) with open End</li> </ul>	2cm	
200.855.100 291.001.400	<ul> <li>5m Power Cord (5x 2,5mm<sup>2</sup>) with CEE Plug 16A red</li> <li>5m Power Cord (3x 1,5mm<sup>2</sup>) with CEE Plug 16A blue</li> </ul>	2cm	
200.XXX.XX5	• Front Panels made in aluminium, durable powder coated and earthed		
200.XXX.XX6	<ul> <li>IT Socket (red frame), with seperate input terminal for integration into the IT networks (not connected to circuit breaker)</li> </ul>		



#### 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 modularily interconnected.
- STEP modules have Wieland GST18 in- and output plugs for modular configuration.
- Available for type J, E, G and L (P40). Please ask.



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 1,5mm <sup>2</sup> , 2m
293.375.003	Power Cable H05VV-F3G 1,5mm <sup>2</sup> , 3m
293.940.097	Stainless Steel Mounting Plates, pair
293.940.096	Stainless Steel Brackets, pair

#### Keystone Adapter and Keystones

	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 Socket 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 benchtops 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 3G1,50mm<sup>2</sup> (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 Flter	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 3G1,50mm<sup>2</sup> (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 1,5mm<sup>2</sup>.
- 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 1,5mm<sup>2</sup> (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, 3<sup>3</sup>/<sub>4</sub> 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.

#### ▶ other brands or types on demand

Digital Multimeter and LCR Meter		
590.100.003	Digital Multimeter	
590.105.500	LCR Meter (incl. DMM)	

#### 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.





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.

#### 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		

- 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.





# 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<sub>AC</sub>/60V<sub>DC</sub>.



Test Leads 2mm	299.5 A L .0 FF		
АТуре	L Length	FF Color	
2 Test Lead	0 7,5cm 6	45cm 02 black 06 red	10 green 14 grey
4 Safety Test Lead	<b>2</b> 30cm <b>8</b> 6	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:  $30V_{\rm AC}/60V_{\rm DC}.$
- Max. contact voltage for 4mm safety test leads (touch protected with firm collar): 1000V.



Test Leads 4mm	299.5 A L.0 FF	
АТуре	L Length	FF Color
1 Test Lead	<b>0</b> 25cm <b>4</b> 100cm	02 black 06 red 10 yellow 14 blue 18 white
3 Safety Test Lead	<b>2</b> 50cm <b>6</b> 150cm	04 brown 08 yellow/green 12 green 16 grey
Test Lead Sets	299.49 A . S 00	
АТуре	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 T	est 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 Extensi	on 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.

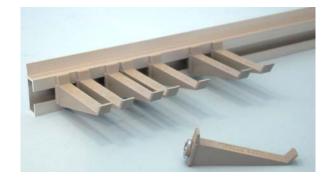


Depth	300/17	Width / Nos of Gaps 500/31 603/37		800/46	1000/56
80mm	448.160.000	448.180.000	448.200.000	448.220.000	448.240.000
160mm	448.170.000	448.190.000	448.210.000	448.230.000	448.250.000

#### 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.
- Durble, 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 benchtop in honeycomb pattern to keep small parts from dropping down.

Rubber Mat

- Dimensions: 525 x 365 x 7mm (WxDxH).
- Color: black.

299.111.100





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: 10<sup>3</sup> 10<sup>4</sup>Ω.



#### 299.111.300

Antistatic Rubber Grid-Mat

# RUBBER MAT (PER METER), GREY

- Tailored rubber mat to protect your benchtop or as floor mat.
- Upper side either rilled or flat.
- Width: 1000mm or 1200mm, length (max.): 10m.
- > = 4mm thick, resilent to disruptive discharge up to 50kV (VDE 0680).

Rubber Mat, grey (per meter)			ey (per meter)	299.1	21. S B 0	
	S	Thick		В	Width	
	1	3mm, rilled		0	1000mm	
	2	4,5mm, rilleo	ł	2	1200mm	
	3	4mm, flat				
	Ru	ıbber Mat Ta	iloring			
	29	9.890.910	Straight Cut, per	Mete	ər	
	29	9.890.920	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





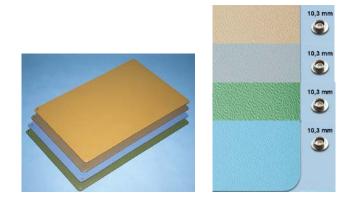
#### ESD BENCH MAT

- Double-layered bench mat with round edges.
- Double -ayered synthetic rubber.
- 2x press stud 10,3 for wirstband connection.

#### 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)

 Surface shortly withstands soldering splatters, low-resitance base-layer provides steady discharge resistance of approx. 10 - 100MΩ) in each position.

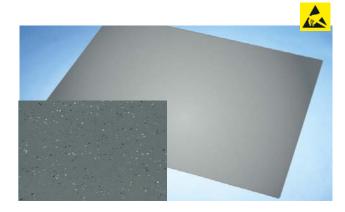


# ESD FLOOR MAT

- 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 continously dissipative base-layer and pointwise contact to the surface for perfect discharging properties.

# ESD MAT PER METER

- Double-layered synthetic rubber mat, shortly resitant to soldering splatters, with low-resistance base-layer.
- VDE-conform, certified according to DIN EN 100 015.
- Discharge resistance: 10 100MΩ, length (max.): 10m.

E	SD	Mat (per Meter) 2	99.89	B	. 4 <mark>ST</mark>
	В	Width	5	ST	Thickness
	1	1000mm	(	00	2mm (beige)
	0	1220mm	(	02	2mm (platinum grey)
			(	04	2mm (olive green)
			(	06	2mm (light blue)
			1	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 Moo	lule wi	th ESD	Connecti	ng Poir	nt	

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

299.890.510



0

299.890.500

299.790.900: Adapter 4mm Safety Jack -10mm Press Stud

#### ESD SET BASIC

- Dissipative mat with round edges, platinum grey, made of anthistatic 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 benchtop 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 benchtop.
- If the wristband is removed from the arm or earth-resistance of benchtop 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 benchtop (retrofittable)
  - KP module for integration into ENERGY extensions.
- The ESD Monitoring Unit is grounded via power supply and holds an unvisible connection to the benchtop. 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 benchtop 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 Unit299.790.100ESD Monitoring Unit / Box Type322.790.002KP Module horizontal (1KP)322.790.052KP Module vertical (1KP)299.790.900Adapter 4mm Safety Jack - 10mm Press Stud299.790.800Option 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 vinyle according to ISO 10582.
- Suitable for swivel chairs EN 12529 type W.
- Non-directional, interpersed with black dissipative sprinkles, smooth anti-slip surface.
- Durable high-quality material with double glass-fibre mesh.

Wear classification:	Class 34, 43			
Total thickness:	6,0mm			
Surface thickness:	2,0mm			
Weight:	9.240g/m <sup>2</sup>			
Fire resistance (EN 13501-1):	Bfl-s1			
Static electrical propensity (EN 1815):< 2kV				
Electrical resistance:				
EN 1081:	$5 \times 104 \le Rt \le R^{-1}$			
IEC 61240 4 1	- 1000			

IEC 61340-4-1:	≤ 109Ω
IEC 61340-4-5:	≤ 109Ω
ANSI / ESD 7.1:	≤ 109Ω
Slip resistance wet: (DIN 51130):	R9
Shore hardness D:	≥ 90HD
Light fastness:	≥ 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.

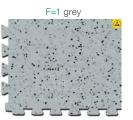
For loosely layings a gap of 6mm to the wall is recommended. Earthing must be done with copper band under each 3rd row of tiles. The copper band should contact each tile preferably in its center. The copper bands need to be connected to earth potential.

#### ESD Floor CONNECT

299.600.10 <b>F</b>	Standard Floor Tile 635 x 635mm
299.600.20 <b>F</b>	Ramp Floor Tile 310 x 635mm
299.600.30 <b>F</b>	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 Trasition Profile 3m
299.603.100	Floor Sticker - ESD Measuring Point
075.350.123	ESD Test Sticker 15x15mm (1sheet = 77 stickers)

#### Colors

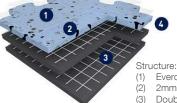






F=3 blue





SD PROTECTED

106Ω

#### Evercare surface treatment (conductive)

ESD PF

- 2mm thick homogeneous surface layer
- Double glass fibre mesh
- Carrying layer: mixture or carbon granula (4) tes and recycled vinyle



One side straight and chamfered 310 x 635mm

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: Earthing Box 1x
- Adhesive copper band 2m Connecting cable with M5 eyelet 3m

- <u>Press Stud Universal Kit:</u>
  Press Stud, round part 10mm
- Press Stud, spring part 10mm
- Screws with washer and lower part
- EPA bonding lable

Aluminium Transition Profile 3m • For a perfect transition between tiles

- and initial room floor
- Width: 65mm



















#### ESD DOCUMENT HOLDER DIN A4

- 10x DIN A4 document protectors made of electrostatic polyethylene, fittet in black metall 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					
АТуре	1	D	Diameter	т	Version
0 Standard	k	3	380mm	0	no position lock
5 ESD	<u>A</u>	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 eathing cable.
- Black surface (450 x 350mm).
- Front height: 30 100mm.
- Rear height: 70 75mm.

299.610.100

ESD Foot Rest





- 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 Holde





# 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				0.0		
1 Anthrac	site		1			
			24			Mar !!
Set of Holders	3		0 °		Supar	n, m
469.900.01 <b>A</b>	12-parts		2		0.0	a con
469.900.02 <b>A</b>	18-parts			6.00	22 1200	TIT
469.900.03 <b>A</b>	28-parts		1.2		55 T	
469.900.04 <b>A</b>	40-parts			and a state of the		
Holder with H	ook			Holder with D	ouble Hook	
469.050.01 <b>A</b>	L: 50mm / Ø 6mm			469.100.01 <b>A</b>	35 x 35mm (LxW)	
469.050.02 <b>A</b>	L: 100mm / Ø 6mm			469.100.02 <b>A</b>	50 x 35mm (LxW)	
469.050.03 <b>A</b>	L: 150mm / Ø 6mm	18		469.100.03 <b>A</b>	75 x 35mm (LxW)	
469.050.04 <b>A</b>	L: 200mm / Ø 6mm			469.100.04 <b>A</b>	150 x 35mm (LxW)	
Holder with C	lip			Holder for Pli	er	
469.150.01 <b>A</b>	Ø 13mm			469.200.01 <b>A</b>	35 x 20mm (WxD)	-
469.150.02 <b>A</b>	Ø 19mm			469.200.02 <b>A</b>	55 x 20mm (WxD)	1
469.150.03 <b>A</b>	Ø 25mm	🤹 🏢		469.200.03 <b>A</b>	75 x 20mm (WxD)	BS-1
469.150.04 <b>A</b>	Ø 32mm					
Holder for Ele	ctric Tools			Holder for Ca	bles	
469.250.01 <b>A</b>	Ø 40mm			469.300.01 <b>A</b>	150 x 37 x 50mm	
469.250.02 <b>A</b>	Ø 60mm			469.300.02 <b>A</b>	200 x 37 x 50mm	
469.250.03 <b>A</b>	Ø 80mm					
Holder for Sci	ew Drivers			Holder for Wr	ench	
469.400.01 <b>A</b>	for 6 pcs	and the second s		469.500.01 <b>A</b>	for 8 pcs	
469.400.02 <b>A</b>	for 12 pcs					
Holder for Dri	ll and Inbus	-		Bin Bar	_	
	_			Bin Bai		
469.450.01 <b>A</b>	for 14 pcs	State of	>	469.350.01 <b>A</b>	for 1 pcs	
469.450.02 <b>A</b>	for 28 pcs			469.350.02 <b>A</b>	550 x 60mm (WxH)	
				469.350.03 <b>A</b>	550 x 38mm (WxH)	
Document Ho	lder			Shelf		
100.000.001	220 x 310mm (WxH)			469.550.01 <b>A</b>	350 x 125mm (WxT)	
469.600.03 <b>A</b>						



# 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.
- Diemensions: 307 x 150 x 555mm (WxDxH).

Small Pa	art Magazine Stand	ard
295.008.	.100 with 8 drawer	S
295.016.	100 with 16 drawe	rs
295.024.	100 with 24 drawe	rs
295.040.	100 with 40 drawe	ors
295.048.	.100 with 48 drawe	ers
295.060.	.100 with 60 drawe	ers







295.048.100

295.024.100

295.016.100

SMALL PART MAGAZINE ESD

Drawers made of black dissipative synthetic material with corbon 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



# 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.



Stora	ge Bins 29	6. GG	G. <mark>A</mark> 01 (	PU =	10x)
GGG	Dimensions	s (Dx	WxH)	Α	Version
010	500x300x250	050	290x140x130	1	Standard
020	500x300x200	075	230x140x130	2	esd 📩
030	350x200x200	100	160x105x75		
040	350x200x150	125	85x105x45		





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)

<b>322</b> 300x200x117	<b>431</b> 400x300x75	<b>434</b> 400x300x220	<b>642</b> 600x400x120	<b>645</b> 600x400x285
	<b>432</b> 400x300x120	<b>435</b> 400x300x270	643 600x400x150	646 600x400x320
	<b>433</b> 400x300x170	<b>436</b> 400x300x320	644 600x400x220	

#### **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
191.002.220	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
191.002.320	Sliding Nut for 30x30 Cross Profile M6
191.002.330	Sliding Nut for 30x30 Cross Profile M8
	491.002.110 491.002.120 491.002.130 410.130.138 69.750.006 491.002.220 491.002.410 491.002.310 491.002.320











# **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 Joi	nt Base	
299.131.100 Standard	299.131.105 ESD	2

# **BASE** WITH BALL JOINT

For the fixation to laboratory benches with max. 80mm • benchtop.

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 2

# CIRCUIT BOARD HOLDER

Clamp holder for circuit boards to avoid hand contact. •

299.130.605

299.130.800

A

- Accepting bracket: 70mm; adjustable between 25 -270mm.
- Adjustable midposition.



# CIRCUIT BOARD COVER

- Allows to turn the circuit board with components before soldering.
- Dimensions: 315 x 330mm.

















#### MECHANIC VISE

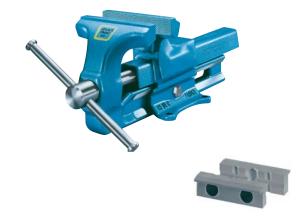
Mechnaic vise with forged jaws for circular pipes, clamping jaws for great depth, easy adjustable centric clamping mechanism, precision spindle-bearing with two-turn trapezium thread; grooved jaws.

> 120 mm. 65 mm. 16-55 mm.

Jaw width:	
Span depth:	
Pipe-Ø min./max.:	

#### 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

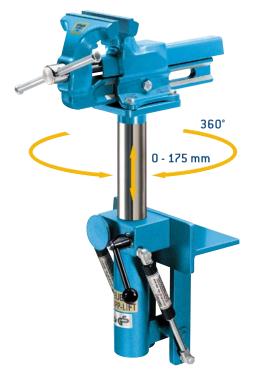
When not in use, the vise can be fold under the benchtop, so your benchtop is clear for other tasks. When used, the vise can be adjusted in height by approx. 175mm and is 360° turnable.

Lowest position:	590mm.
Folding depth:	460mm.
Folding radius:	430mm.

Fold - / Lift Mech	anism 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 wsorkstations. 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 150m<sup>3</sup>/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 190m<sup>3</sup>/h. •
- Prefilter for fine particles F7.
- Particle filter H13 & gas filter (10% active carbon foam).

#### Soldering Fume Extraction ZERO SMOG 185.410.150 ZERO SMOG EL Set 185 /10 190 Replacement Filter for Set El

100.110.100	
185.420.150	ZERO SMOG TL Set
185.420.190	Replacement Filter for Set TL
185.400.200	Extraction Arm Set (for 2nd Workstation)



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.

#### 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



Extraction Arm Set

- (for 2nd Workstation) 1x bench clamp with closing valvue
- . 1x 1m extraction hose
- 1x hood nozzle 225x100
- 1x connecting hose to extracting
- unit 3m



- 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



# 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 mainenance-free and with thermofuse for overload protection. Easy filter replacement due to filer-lift-technology.

- Sound level (distance 1m): <45dB(A).</li>
- 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 Extr	action
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

# Weller'

Direct Fume Extraction

тега



FE Extrection Kit

# 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, seperation rate according to EN1822 99,95%, refillable active carbon filter in exchangable housing.
- With 4 adapter for hoses NW50.
- Air flow: 320 m<sup>3</sup>/h.
- Total pressure: 4.000Pa.
- Motor performance: 240W.
- Sound level 56dB(A).
- Mobile Soldering Fume Extraction ECO:
- Simple operator panel with optic and accoustic control function.

#### Mobile Soldering Fume PREMIUM:

- Operator panel with full text indication and membran keypdad 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 assemly with bench clamp or flange.
- Pipe diameter: 50mm.
- Recommended air flow: 45 85m<sup>3</sup>/h.
- Antistatic aluminium pipes, chromated.
- Joints made of black antistatic PP.
- Integrated throttle valve.
- Earth cable with 1MOhm resistance.
- Antistatic flange for benchtop 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 assemly with bench clamp or flange.
- Pipe diameter: 50mm.
- Recommended air flow: 45 85m<sup>3</sup>/h.
- Antistatic aluminium pipes, cromated combined with a flexible self-supporting hose made of black polypropylene (PP).
- Antistatic flange for benchtop mounting, black, 60mm diameter.
- Joints made of black antistatic PP.
- Integrated throttle valve.
- Earth cable with 1MOhm resistance.
- Antistatic flange for benchtop 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)







185.204.600

185.204.700





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# TEST HOOD

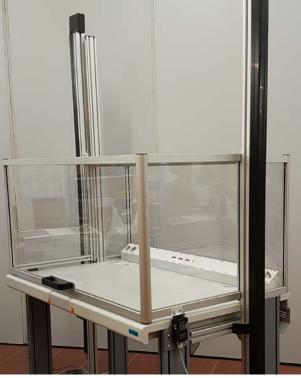
- Dimensions: 530 x 900 x 660mm (WxDxH). •
- Bottom with durable plastic cavity for internal wiring. • Semicircular test hood made of transparent perspex •
- with handle and safety lock.
- Housing made of durable plastic. •



# 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.

Test Cabin	
940.027.200	Test Cabin for PROFI Bench 800x790x600mm
940.075.800	Test Cabin for PROFI-Tisch 1295x790x600mm



----

The cabin is firmly closed with magnetic safety lock

Dimensions: approx. 1300 x 800 x 600mm (WxDxH).

during the test process.



# 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.





