





# **CONSULTING · PLANNING · PRODUCTION · SERVICE**





### **INNOVATION · QUALITY · SERVICE** Our basics



# Your Partner in the Industry

Since 1986 ELSPRO Elektrotechnik GmbH & Co. KG has been synonymous with high quality and outstanding service in the electricity and lighting sectors. We supply industrial and service clients with an extensive range of innovative electrotechnical safety products.



#### **Tailor-made Solutions**

Our specialists implement all customer requirements, if technically feasible. Flexibility and maturity in production processes, which are demandsynchronized, allow us to deliver even tailor-made solutions quickly.



#### Technology without Compromise

We implement the product requirements of our customers in compliance with the latest technical regulations. Our benchmark is state-of-the-art technology.



#### Made in Germany

At our headquarter in Hilden, we use the advantages of the neighbouring state capital Düsseldorf in terms of service and logistics. From here we can reach the entire European market quickly and cost-efficiently.



# Contact

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### Partner to these industries

- Energy generation
- Public utilities · Power plants
- Traffic organisations
- Emergency and rescue services
- Construction companies · Assembly
- Metal working
- Paper manufacturing and wood processing
- Chemical industry
- Food industry
- Automotive industry
- Water treatment
- Shipyards · Plant engineering

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# Mobile Power Distribution Boxes of Solid Rubber

- Floor-Mounted -









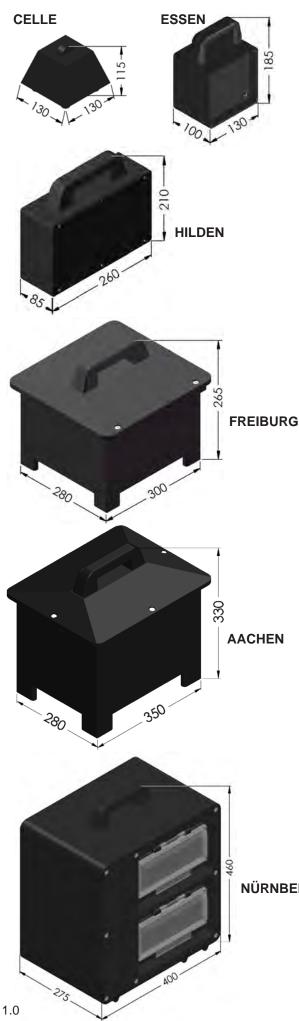








# **ELSPRO Solid Rubber Safety Distribution Boxes**



The solid rubber housing is produced using a press and vulcanization process. In combination with the special material employed, this allows us to achieve those qualities that set this distribution box apart.

#### Housing made of top-quality solid rubber (butyl rubber)

- high mechanical resistance, unbreakable
- hardness of at least 96° Shore in accordance with • DIN 53505
- resistant to aging and corrosion
- resistant to acid, lye, grease, and oil
- weatherproof and cold-resistant
- self-extinguishing and fire-resistant according to VDE 0471/DIN EN 60695

#### **Component Features**

- VDE-tested connector system
- CEE plug connectors in accordance with VDE 0623/DIN EN 60309 - nickel-plated contact points
- fitted sockets, switches, and all other components are individually exchangeable and fastened using ISO screws
- lid screws made of V2A steel
- rustproof external metal parts

#### Features of the Assembled Distribution Box

- splashproof
- dustproof
- highly insulated
- maximum protection (IP 65)
- the externally accessible fuse elements are splashproof thanks to a special transparent, shockproof, and self-locking cover
- in compliance with all technical regulations and with all up-to-date electrotechnical safety standards (VDE)

ELSPRO safety distribution boxes are used in a broad range of industrial sectors, wherever high mechanical demands, extreme operating conditions, and heightened safety requirements call for a custom-tailored solution. We will work with you to plan and assemble the product according to your specific requirements and needs. Feel free to contact us - we're happy to help!

#### NÜRNBERG

#### The Black Outlet

 to address high demands and safety issues

#### Range of Application: Workshop, warehouse, commercial kitchen, laboratory, stage, office, among many other application areas



#### Models:

Input Plug with Cable	Profile	Profile Length Output Sockets		Order Number
earthing contact 230 V	3 G 1.5 mm²	5 m 10 m	3 sockets with earthing contact	1200030 1200031
earthing contact 230 V	3 G 1.5 mm²	5 m 10 m	4 sockets with earthing contact	1200040 1200041

#### - Cables in INDUSTRIEFLEX® 07 -

#### **Special Features:**

- IP 44, highly insulated and splashproof
- Housing made of polyamide, nylon-reinforced, K2 model
- Built-in sockets with self-closing hinged lid,
   4-point fastening, individually exchangeable
- for stationary use, the base of the housing features 4 holes to accommodate screws for external mounting
- dimensions designed for 3 and 4 socket outlets

- $\rightarrow$  SAFE even when used outdoors
- → tread-resistant, shockproof, and impactresistant, high DURABILITY even under harsh conditions
- → repairs can be made at minimum effort, making it unnecessary to dispose of the entire outlet
   − COST SAVINGS –
- → simple, stable installation on workbench, office furniture, etc., which heightens the variety of implementation possibilities
- $\rightarrow$  L 300 mm x W 80 mm x H 68 mm

- other cable lengths and models on request / subject to modification and errors -

↓ +49(0)2103/9710-45
 ➡ +49(0)2103/9710-80



#### You demand superior quality!

Our all-purpose safety distribution box DUISBURG meets your demands – and not only in rough industrial environments. In today's world, durable and robust safety distribution boxes are needed everywhere – from cafeterias to offices to production settings. And the DUISBURG series caters to both outdoor and indoor working environs.

#### Guaranteed to ensure health and safety!





S. 5.3

#### **Special Features:**

- large carrying handle
- stable base
- housing, handle, and base form a compact unit made of solid rubber
- highly insulated and splashproof
- extremely robust, shock-resistant, K2 model

- ightarrow easy and comfortable to carry,
- handle prevents improper cable transport
   → sockets have better ground clearance
- when used in wet areas
- → no need for additional fastening measures, for individual parts will absolutely not come loose MAINTENANCE-FREE
- → high level of SAFETY outdoors and in moist indoor environments
- → long service life, even under rough operating conditions, which equates to COST SAVINGS!

#### Models:

Input Plug with Cable		Output Sockets	Order Number
earthing contact	5 m	4 sockets with earthing contact	1400001
CEE 230V 16A 3-pol.	5 m		1400002
CEE 400V 16A 5-pol.	3 m	99	1401001

- other cable lengths and further models on request / subject to modification and errors -

↓ +49(0)2103/9710-45
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(€▲ * 🗇 🗆	K2 Configuration			ile Safety Distri	bution Boxes
Solid Rubber Housing Series CELLE	Number Output Societ	Fuse Protection	adua Current Breaker Type P	ible with Plug	Orber No.
	3 sockets with earthing contact	-	_	earthing contact CEE 400V 16A 5p.	1000001 1001001
	3 CEE 230V 16A 3p.	-		CEE 230V 16A 3p. CEE 400V 16A 5p.	
	1 CEE 400V 16A 5p. and 2 sockets with earthing contact	-	— 3 m	CEE 400V 16A 5p.	1001103
	3 CEE 400V 16A 5p.	-	— 3 m	CEE 400V 16A 5p.	1001105
	3 CEE 400V 32A 5p.	-	— 3 m	CEE 400V 32A 5p.	1003304
	3 CEE 24V 16A 2p.	-	— 3 m	CEE 24V 16A 2p.	1001106
	3 CEE 42V 16A 2p.	-	— 3 m	CEE 42V 16A 2p.	1001107
	3 CEE 16A 4p. 10h 100-300 Hz	-	3 m	CEE 16A 4p. 10h 100-300 Hz	1001108
	3 CEE 16A 4p. 2h 301-500 Hz	-	3 m	CEE 16A 4p. 2h 301-500 Hz	1001109
	3 CEE 500V 16A 4p.	_	— 3 m	CEE 500V 16A 4p.	1001110
	- the second black and the second <b>f</b>	urthar madala an ra		11 <b>6</b> - 11	

- other cable lengths and further models on request / subject to modification and errors -

Configuration Example

Output

3 sockets with

3 CEE 230V

16A 3p.

earthing contact

Number

Sockets

Protection

3 B-Autom. 1p.

3 B-Autom. 1p.

**Mobile Safety Distribution Boxes** 

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Circuii Breaker Residuar Current Order No. PIUG Cable in Solid Rubber Housing ESSEN CEE 400V 32A 5p. 1043001 3 m CEE 400V 32A 5p. 1043101 3 m

1 CEE 400V 16A 5p.	1 C-Autom. 3p	_	3 m	CEE 400V 32A 5p.	1043102	
1 CEE 400V 16A 5p.	1 Neokit 3p.	_	3 m	CEE 400V 32A 5p.	1023102	
1 CEE 500V 16A 4p.	1 K-Autom. 3p.	-	3 m	CEE 500V 32A 4p.	1043103	

1 CEE 400V 16A 5p.	motor protection circuit breaker 3~	-	3 m	CEE 400V 16A 5p.		
Adjustment	1.6 - 2.4 A		3 m		1091101	
Range:	2.4 - 4.0 A 4.0 - 6.0 A 6.0 - 10.0 A 10.0 - 16.0 A		3 m		1091102 1091103 1091104 1091105	

2 m cable with 1 CEE connector socket 400V 16A 5p.	1 C-Autom. 3p 1 Neokit 3p. 1 C-Autom. 3p. 1 Neokit 3p.		CEE 400V 32A 5p. CEE 400V 32A 5p. CEE 400V 63A 5p. CEE 400V 63A 5p.	1043105 1023104 1046102 1026102	
2 m cable with 1 CEE connector socket 400V 32A 5p.	1 C-Autom. 3p 1 Neozed 3p.	_	CEE 400V 63A 5p. CEE 400V 63A 5p.	1046301 1026301	

- other cable lengths and further models on request / subject to modification and errors -



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C€∆��⊡			ion Join	-	Distribution Boxes
Solid Rubber Housing Series HILDEN	Number Output Societ	FUSE Prof	Residual Current RCC	TYPE with p	No Orser No.
	3 sockets with earthing contact 3 sockets with earthing contact	_		3 m earthing contains 3 m earthing contains 4 m contains	
	1 CEE 400V 16A 5p.	_	25A/30mA/4p.	3 m CEE 400V 16A	5p. <b>1311102</b>
	1 CEE 400V 32A 5p.	_	40A/30mA/4p.	3 m CEE 400V 32A	5p. <b>1313320</b>
	6 sockets with earthing contact	—	40A/30mA/4p.	3 m CEE 400V 16A	5p. <b>1311030</b>
	<ol> <li>CEE 400V 16A 5p.</li> <li>earthing contact</li> <li>CEE 400V 16A 5p.</li> <li>earthing contact</li> </ol>	 2 C-Aut. 1p. 	40A/30mA/4p. 40A/30mA/4p.	3 m CEE 400V 16A 3 m CEE 400V 16A	
	3 sockets with earthing contact	3 B-Aut. 1p.	40A/30mA/4p.	3 m CEE 400V 32A	5p. <b>1353030</b>
	1 CEE 400V 16A 5p.	1 C-Aut. 3p.	40A/30mA/4p.	3 m CEE 400V 32A	5p. <b>1353130</b>
	1 CEE 400V 16A 5p. 3 earthing contact	1 C-Aut. 3p. 3 B-Aut. 1p.	-	3 m CEE 400V 32A	5p. <b>1343130</b>
	1 CEE 400V 16A 5p.	1 C-Aut. 3p.	_	2 m CEE 400V 63A	5p. <b>1346130</b>
	1 CEE 400V 16A 5p. 1 CEE 400V 32A 5p.	1 Neozed 3p. 1 C-Aut. 3p.	_	2 m CEE 400V 63A 2 m CEE 400V 63A	
	1 CEE 400V 32A 5p.	1 Neozed 3p.	_	2 m CEE 400V 63A	5p. <b>1326330</b>

- other cable lengths and further models on request / subject to modification and errors -

Configuration Example

Output

Sockers

Number

Protection

**Mobile Safety Distribution Boxes** Circuit Breaker A

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Order No.

PIUG

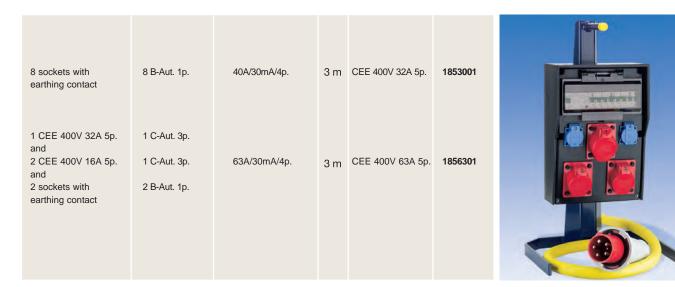
Solid Rubber Housing Series **REMSCHEID/TRIER** 

6 sockets with earthing contact	6 B-Aut. 1p.	40A/30mA/4p.	3 m	CEE 400V 32A 5p.	1753002
6 sockets with earthing contact	3 Neozed 1p.	40A/30mA/4p.	3 m	CEE 400V 32A 5p.	1733005
6 sockets with earthing contact	-	40A/30mA/4p.	3 m	CEE 400V 16A 5p.	1711001

Residual Current |

1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and	— 1 C-Aut. 3p.	40A/30mA/4p.	3 m	CEE 400V 32A 5p.	1753308	
3 sockets with earthing contact	3 B-Aut. 1p.					
2 CEE 400V 16A 5p. and 3 sockets with earthing contact	1 C-Aut. 3p. 3 B-Aut. 1p.	40A/30mA/4p.	3 m	CEE 400V 32A 5p.	1753102	
						-





- other cable lengths and further models on request / subject to modification and errors -

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Configur	ation	Exampl	е
			-

8 sockets with

9 sockets with

earthing contact

2 CEE 400V 16A 5p.

1 CEE 400V 32A 5p.

2 CEE 400V 16A 5p.

earthing contact

4 sockets with

earthing contact

and

and

and 3 sockets with

earthing contact

**Mobile Safety Distribution Boxes** 

3m

3m

3m

3m

40A/30mA/4p.

40A/30mA/4p.

40A/30mA/4p.

40A/30mA/4p.

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Series FREIBURG



8 B-Aut. 1p.

2 C-Aut. 3p.

2 B-Aut. 1p.

2 C-Aut. 3p.

2 B-Aut. 1p.



CEE 400V 32A 5p. 1453001

CEE 400V 16A 5p. 1411004

CEE 400V 32A 5p. 1453113

CEE 400V 32A 5p. 1453310





2 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 3 sockets with earthing contact	2 C-Aut. 3p. 1 C-Aut. 3p. 3 B-Aut. 1p.	63A/30mA/4p.	3m	CEE 400V 63A 5p.	1456346
2 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 4 sockets with earthing contact	— 1 Neokit 3p. 4 Neokit 1p.	40A/30mA/4p.	3m	CEE 400V 32A 5p.	1433310



1 CEE 400V 63A 5p. and 1 C-Aut. 3p. 1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. CEE 400V 63A 1456612 1 C-Aut. 3p. 63A/30mA/4p. 3m and 5p. 3 sockets with 2 B-Aut. 1p. earthing contact



- other cable lengths and models on request / subject to modification and errors -

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#### SPECIAL FEATURES:

- hinge with a solid V2A axis
- 2 M6 screws made of V2A steel, undetachable, guaranteeing secure and easy closure of the distribution box
- four sturdy feet provide 30 mm floor clearance and a firm foothold (Fig. 1)
- protection guards are arranged clearly under the lid, protecting against accidental contact (Fig. 2)
- on request: 2 star-handle screws, undetachable, for opening the box without tools (Fig. 3)
- designed to accommodate a closing mechanism (Fig. 3)
- inclined and overhanging lid that is also furnished with a rain deflector spanning all sides
- large, stable carrying handle
- the inside of the distribution box also displays a clear, maintenance-friendly design



with colored engraving on request



with internal protective device



- → lid functionality is guaranteed, even when implemented under rough conditions and high mechanical strain
- → protection guards cannot be tampered with by unauthorized persons - SAFETY
- → perfectly suited to nearly all ground conditions
- → live parts cannot be touched, facilitating easy and safe operation
- → trained personnel have quick access to the safety devices - TIME SAVINGS
- only key holders can open the distribution box
- → rain and spray water cannot build up on the housing
- → thanks to a special shape (recessed grip), the distribution box is comfortable and safe to carry during transport
- → maintenance work can be carried out quickly and simply - COST SAVINGS



with star-handle screws on request

with a padlock on request Output

Number

Sockers

2 CEE 400V 32A 5p.

2 CEE 400V 16A 5p.

1 CEE 400V 32A 5p.

2 CEE 400V 16A 5p.

2 CEE 400V 16A 5p.

waterproof —

6 sockets with

- waterpressure-tight-

earthing contact

6 sockets with

earthing contact

earthing contact

and

and 6 sockets with

and

and

and

2 C-Aut. 3p.

2 C-Aut. 3p.

6 B-Aut. 1p.

2 C-Aut. 3p.

6 B-Aut. 1p.

2 C-Aut. 3p.

6 B-Aut. 1p.

FUSE

Protection

**Mobile Safety Distribution Boxes** 

PIUG

Cicuit Breater 1

Residual Current |



Solid Rubber Housing Series AACHEN

1 CEE 400V 63A 5p. and 2 CEE 400V 32A 5p. and 2 CEE 400V 16A 5p. and 3 sockets with earthing contact	 2 C-Aut. 3p. 1 C-Aut. 3p. 2 B-Aut. 1p.	63A/30mA/4p.	3m 	CEE 400V 63A 5p. or with connector plug	1956601 1956602
1 CEE 400V 63A 5p. and 1 CEE 400V 32A 5p. and 2 CEE 400V 16A 5p. and 8 sockets with earthing contact	— 1 C-Aut. 3p. 2 C-Aut. 3p. 4 B-Aut. 1p.	63A/30mA/4p.	3m 	CEE 400V 63A 5p. or with connector plug	1956603 1956604

63A/30m/

40A/30m/

40A/30mA/4p.

A/4p.1)		CEE 400V 63A 5p or with connector plug CEE 400V 32A 5p	1956302	
A/4p.1)	om	or with		
		connector plug	1953302	



- other cable lengths and models on request / subject to modification and errors -

1) externally accessible

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3m CEE 400V 32A 5p. 1953101

- waterproof -

or with



stackable versions with folding handle on request



#### SPECIAL FEATURES:

- hinge with a solid V2A axis
- 3 M6 screws made of V2A steel, undetachable, guaranteeing secure and easy closure of the distribution box
- 4 sturdy feet provide 40 mm floor clearance and a firm foothold (Fig. 1)
- protection guards are arranged clearly under the lid, protecting against accidental contact (Fig. 2)
- on request: 3 star-handle screws, undetachable, for opening the box without tools (Fig. 3)
- designed to accommodate a closing mechanism (Fig. 4)
- inclined and overhanging lid that is also furnished with a rain deflector spanning all sides
- large, stable carrying handle
- the inside of the distribution box also displays a clear, maintenance-friendly design



with star-handle screws on request



with internal protective device



- → lid functionality is guaranteed, even when implemented under rough conditions and high mechanical strain
- → protection guards cannot be tampered with by unauthorized persons - SAFETY
- → perfectly suited to nearly all ground conditions
- → live parts cannot be touched, facilitating easy and safe operation
- → trained personnel have quick access to the safety devices - TIME SAVINGS
- → only key holders can open the distribution box
- rain and spray water cannot build up on the housing
- → thanks to recessed grips the distributor sits comfortably and securely in the hand during transport
- → maintenance work can be carried out quickly and simply - COST SAVINGS

Fig. 4 with a padlock on request



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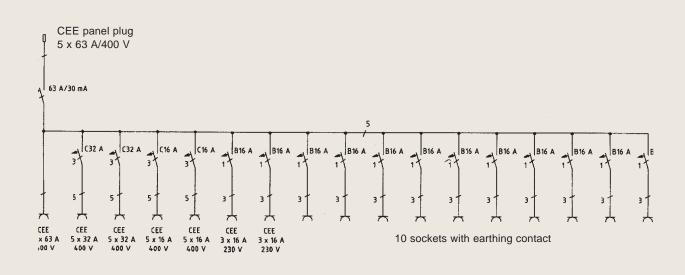
#### The Giant

- its special construction form together with generous dimensions of 400 x 400 x 275 mm turn the NÜRNBERG series into an ALL-ROUNDER among mobile power distribution boxes
- it's our favorite for feeds of up to 250 A
- the NÜRNBERG series attains its unique style through the frontal array of sockets and the access points for safety and protective devices to the
- an absolute must for all construction and installation sites with high energy demands rear



#### Configuration examples 1 and 2 of over 300 already assembled varieties

Output/Sockets	Fuse Protection	RCD Type A I I⊿	Infeed Input	Order No.
1 CEE 400V 63 A 5p. 2 CEE 400V 32 A 5p. 2 CEE 400V 16 A 5p. 2 CEE 230V 16 A 3p. 10 sockets with earthing contact	 2 C-Autom. 3p. 2 C-Autom. 3p. 2 B-Autom. 1p. 10 B-Autom. 1p.	63 A/30 mA/4p.	panel plug 400 V 63 A 5pol. or 3 m feed cable with CEE plug 400 V 63 A 5pol.	1656602 1656601



- other models on request / subject to modification and errors -

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#### Series NÜRNBERG

The Giant

# **€€**▲ � � 🛛 K2





the shockproof Lexan transparent hinged windows are mounted flush to the lid, which offers protection

Infeed into the distribution box according to customer needs, e.g., lines with plugs, special MC connector system, power lock, etc.





#### Profile:

- with built-in three-phase meter for in-house cost determination
- with built-in digital or analog gauges, e.g., for measuring time, current, and voltage
- distribution box can be stacked using 2 side-mounted carrying handles (optional)
- with colored engraving for absolutely clear identification of ownership
- stable positioning facilitated through a base with symmetrically arranged grooves to ensure reinforcement and strength
- other typical features on request

#### **Special Features:**

- 2 different lids are available
- 1 closed lid for the version with fuse protection situated inside, whereby up to 30 Neozed safety fuses can be mounted under the lid
- 1 lid with 2 shockproof Lexan transparent hinged windows for the versions with fuse protection accessible from the outside; behind the windows there is room for fuses and serial panel plugs of up to 24 TE
- 9 hex bolts M8 X 15 made of V2A steel guarantee
- secure opening and closing of the lid
- large solid-rubber carrying handles with full-length steel reinforcement, especially suited to transport
- a broad number of diverse transport frames, shafts, carts, etc., significantly enhances usability

- → you select the solution that optimally suits your needs PRACTICABILITY
- → fuse replacement is possible (though only by a specialized electrician) after opening the lid with a tool - SAFETY
- easy and accidental-contact-protected access to the safety and protective devices thanks to flip-open windows - TIME SAVINGS
- → no-rust screws that can be loosened even after years - MAINTENANCE FREE
- → handles withstand even heavy strain and will not tear - SAFETY
- → an individual approach to easy and secure transport is possible, as well as safe mounting -MULTI-DISTRIBUTOR

#### ELSPRO Solid Rubber Safety Distribution Boxes Series NÜRNBERG with Trolley

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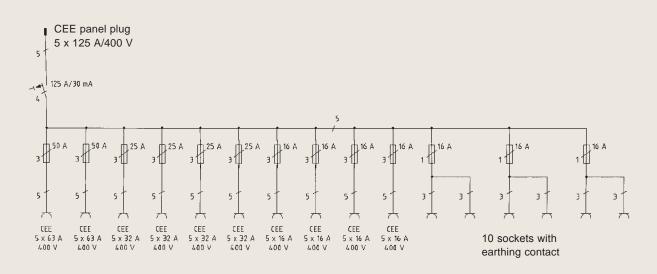
#### The Giants on Wheels

- up to 3 housings can be combined
   e.g., NÜRNBERG NÜRNBERG (see fig.)
   NÜRNBERG WIESBADEN
   NÜRNBERG TRIER
- the selection of possible versions doubles
- all trolleys are protected against corrosion; plastic powder coating of all iron and steel components has proven to be especially effective; color used is blue, RAL 5013
- 2 wheels of solid rubber, each 200 mm in diameter and ball-bearing mounted, facilitate smooth and effortless movement of the distribution boxes, even on rough stretches
- the center of gravity during transport is optimally situated above the axle midpoint; only one person is needed to transport the box safely, easily, and without any (weightrelated) health risks
- extra wide radii for hand navigation and bends additionally enhance trolley safety
- various different wheels are also available



#### Configuration examples 1 and 2 of over 300 already assembled varieties

Output/Soc	kets	Fuse Protection	RCD Type A I I⊿	Infeed Input	Order No.
2 CEE 400V 6 4 CEE 400V 3 4 CEE 400V 1 10 sockets earthing co	32 A 5p. 6 A 5p. 5 with	2 Neozed 3p. 4 Neozed 3p. 5p. 4 Neozed 3p. 3 Neozed 1p. - fuses situated inside —	125 A/30 mA/4p.	panel plug 125 A 400 V 5pol.	1637601



- other cable lengths and further models on request / subject to modification and errors -

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#### ELSPRO Solid Rubber Safety Distribution Boxes Series HAMBURG

## 

#### The XXL Distribution Box

The stable base frame and the generous clearance are just two of the many outstanding features that distinguish the HAMBURG distribution box.

Additionally, more than one connection housing can be installed under the distribution box (see fig.). This significantly enhances the technical possibilities.

5.150 cm<sup>2</sup> of area are available for individual configurations and serve to facilitate the implementation of complex application profiles.

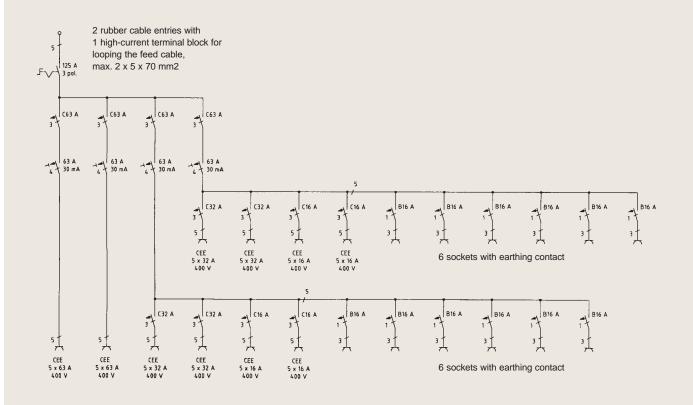
Frame design is adaptable to individual demands, including a trolley version.

These features make HAMBURG the No. 1 XXL series among mobile power distributors.



Dimensions:

footprint 80 cm x 80 cm overall height 112,5 cm



- other models on request / subject to modification and errors -

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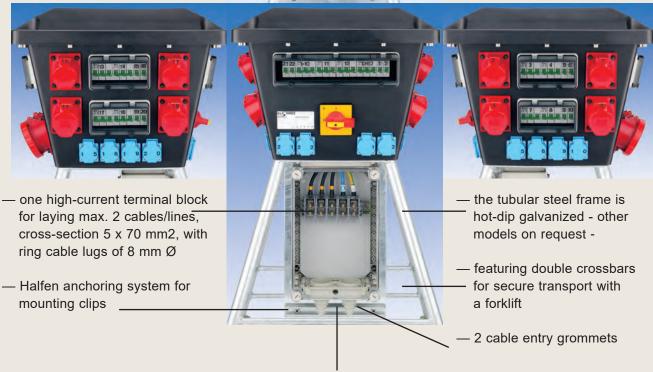
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 The overhanging lid serves to deflect rain and is connected to the base by 16 V2A hex bolts, M8 x 20 mm.



 Residual current protection guards and automats are designed to be accessible from the outside, splashproof, protected behind transparent hinged windows, self-closing, and additionally secured with knurled-head screws.

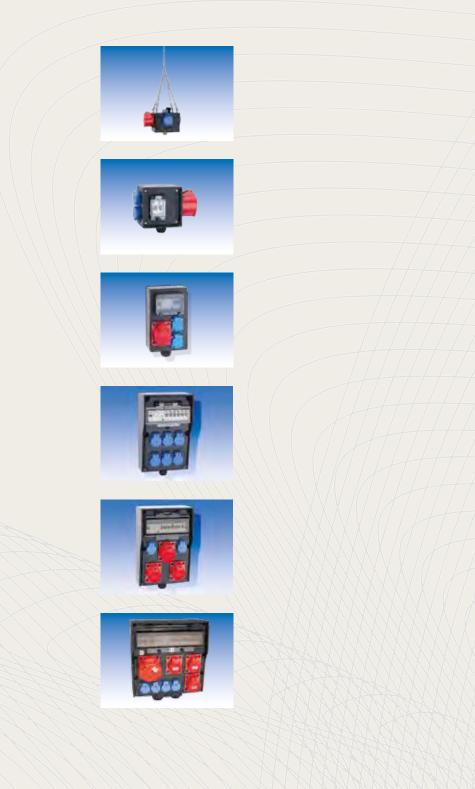


 various housings and configurations in the product range

#### **Configuration Example**

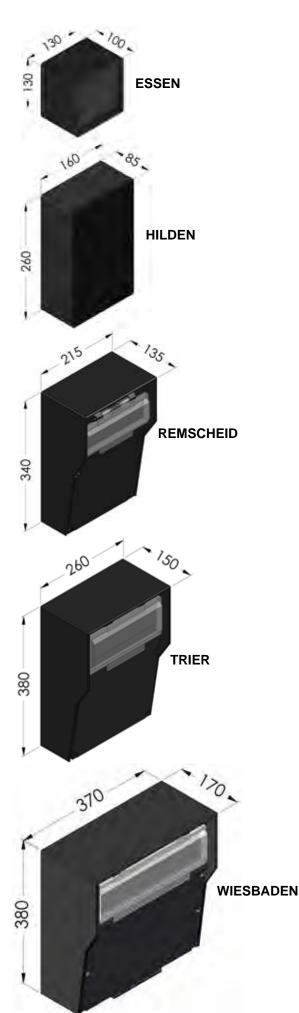
Output/Sockets	Fuse Protection	RCD Type A I I⊿	Infeed max. 125 A Input	Order No.	
2 CEE 400V 63 A 5p. 4 CEE 400V 32 A 5p. 4 CEE 400V 16 A 5p. 12 sockets with earthing contact	2 C-Autom. 3p. 4 C-Autom. 3p. 4 C-Autom. 3p. 12 B-Autom. 1p. 2 C-Autom. 3p. — backup fuses —	4 x 63A/30 mA/4p.	<ul> <li>2 high-current terminal block for laying</li> <li>1 high-current terminal block for laying</li> <li>2 cables/lines max. 5 x 70 mm2</li> </ul>	1559601	
1 main switch 125A/3pol.					

# Stationary Power Distribution Boxes – Solid Rubber and Wall-Mounted





# **ELSPRO Solid Rubber Safety Distribution Boxes**



#### Housing made of top-quality solid rubber (butyl rubber)

- high mechanical resistance, unbreakable
- hardness of at least 96° Shore in accordance with DIN 53505
- resistant to aging and corrosion
- resistant to acid, lye, grease, and oil
- weatherproof and cold-resistant
- self-extinguishing and fire-resistant according to VDE 0471/DIN EN 60695

#### **Component Features**

- VDE-tested connector system
- CEE plug connectors in accordance with VDE 0623/DIN EN 60309 - nickel-plated contact points
- fitted sockets, switches, and all other components are individually exchangeable and fastened using ISO screws
- lid screws made of V2A steel
- rustproof external metal parts

#### Features of the Assembled Distribution Box

- splashproof
- dustproof
- highly insulated
- maximum protection (IP 65)
- the externally accessible fuse elements are splashproof thanks to a special transparent, shockproof, and self-locking cover
- in compliance with all technical regulations and with all up-to-date electrotechnical safety standards (VDE)

ELSPRO safety distribution boxes are used in a broad range of industrial sectors, wherever high mechanical demands, extreme operating conditions, and heightened safety requirements call for a custom-tailored solution. We will work with you to plan and assemble the product according to your specific requirements and needs. Feel free to contact us – we're happy to help!

2.0

Configuration Example	M	Mobile Safety Distribution Boxes			€▲ * ۞ □		
Number Output Sockets	Roupnen, or	Pesicital     Cicouri PCD     Shifty       Pesicital     Cicouri PCD     Shifty       Current Pesicital     Current Pesicital     Shifty       Pesicital     Shifty     <	Screw Size	N <sub>Ģ</sub>	olid Rubber Housing Series ESSEN		
4 sockets with earthing contact 1 CEE 400V 16A 5p. and 4 sockets with earthing contact 1 CEE 400V 32A 5p. and 2 sockets with earthing contact	— — 2 B-Autom. 1p.	25A/30mA/2p. —	M 20 M 20 M 20	2018001 2008101 2048301			
4 sockets with earthing contact 1 CEE 400V 16A 5p. and 3 sockets with earthing contact	 quick-release connector  quick-release connector	_	M 20 1/2 inch thread M 20 1/2 inch thread	2008001 2008102			
<ul> <li>2 sockets with earthing contact</li> <li>1 CEE 400V 16A 5p. and</li> <li>2 sockets with earthing contact</li> <li>1 CEE 400V 32A 5p. and</li> <li>2 sockets with earthing contact</li> </ul>	  2 B-Autom. 1p.	25A/30mA/2p 	M 20 M 20 M 20	2018002 2008103 2048302			
1 screw sized M 25 1 screw sized M 20	main switch 40A 400V 3 ~ reverse switch 40A 400V 3 ~	_	M 25 M 25	2008801 2008802			
1 screw sized M 20	emergency push button	_	M 25	2008804			

– other cable lengths and further models on request / subject to modification and errors –

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CEA&	Configuration Ex		ension and Wall-	mounted [	Distribution Boxes
Solid Rubber Hou <sub>Series</sub> HILDEN	sing	Fuse tection of Protection of Protection	RCD Type A Current Cur	Breaker Franker FURN SOL	an Ste Orbei No.
	<ul> <li>2 sockets with earthing contact</li> <li>3 sockets with earthing contact</li> <li>3 sockets with earthing contact</li> <li>4 sockets with earthing contact</li> </ul>	— — 4 B-Autom. 1p.	25A/30mA/2p. 25A/30mA/2p. 40A/30mA/4p. —	M 20 M 20 M 20 M 25	2318073 2318072 2318070 2348030
	<ol> <li>1 CEE 400V 16A 5p.</li> <li>2 sockets with earthing contact</li> <li>1 CEE 400V 32A 5p.</li> <li>2 sockets with earthing contact</li> </ol>	 2 B-Autom. 1p.  2 B-Autom. 1p.	40A/30mA/4p. 40A/30mA/4p.	M 32 M 32	2358150 2358314
	1 CEE 400V 16A 5p. 1 CEE 400V 32A 5p.	_	40A/30mA/4p. 40A/30mA/4p.	M 20 M 25	2318160 2318320
	1 screw sized M 25 1 screw sized M 32	_	40A/30mA/4p. 63A/30mA/4p.	M 25 M 32	2318830 2318840

- other cable lengths and further models on request / subject to modification and errors -

NUMBER OUTOUT

Sockers

Equiporection or

Suspension and wall-mounted distribution boxes

Circuit Breatler 7

Residual Current |

fing Screw Site



Solid Rubber Housing Series REMSCHEID

6 sockets with earthing contact	6 B-Autom. 1p.	40A/30mA/4p.	M 25	2758010	
6 sockets with earthing contact	6 Neokit 1p.	40A/30mA/4p.	M 25	2738002	
6 sockets with earthing contact	9 B-Autom. 1p.	_	M 25	2748001	

1 CEE 400V 16A 5p. and	1 C-Autom. 3p.	40A/30mA/4p.	M 25	2758144
3 sockets with earthing contact	3 B-Autom. 1p.			
1 CEE 400V 32A 5p. and	1 C-Autom. 3p.	63A/30mA/4p.	M 32	2758350
3 sockets with earthing contact	3 B-Autom. 1p.			
1 CEE 400V 16A 5p. and	1 Neokit 3p.	40A/30mA/4p.	M 25	2738115
3 sockets with earthing contact	3 Neokit 1p.			

1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 3 sockets with earthing contact	— 1 C-Autom. 3p. 3 B-Autom. 1p.	40A/30mA/4p.	M 32	2758340	
1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 3 sockets with earthing contact	1 C-Autom. 3p. 1 C-Autom. 3p. 3 B-Autom. 1p.	_	M 32	2748302	

1 CEE 400V 63A 5p. and 2 sockets with earthing contact	 2 B-Autom. 1p.	63A/30mA/4p.	M 32	2758607	F
1 CEE 400V 63A 5p.	1 C-Autom. 3p.	63A/30mA/4p.	M 32	2758601	
1 CEE 400V 63A 5p.	-	63A/30mA/4p.	M 32	2718601	



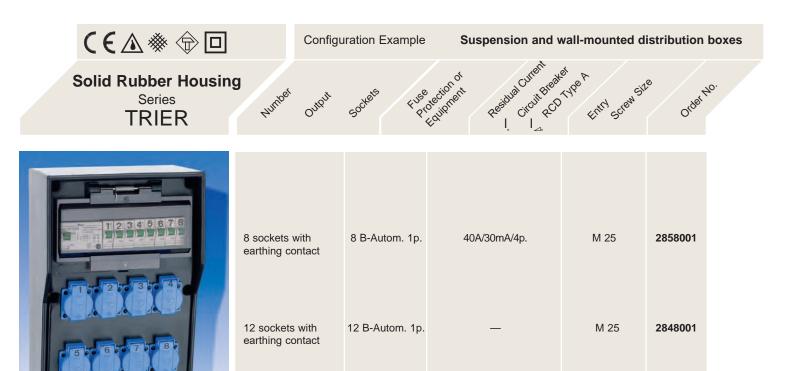
- other models on request / subject to modification and errors -

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1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 4 sockets with earthing contact	1 C-Autom. 3p. 1 C-Autom. 3p. 2 B-Autom. 1p.	63A/30mA/4p.	M 32	2858301
2 CEE 400V 16A 5p. and 4 sockets with earthing contact	2 C-Autom. 3p. 2 B-Autom. 1p.	63A/30mA/4p.	M 32	2858153

	1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 2 sockets with earthing contact	1 C-Aut. 3p. 1 C-Aut. 3p. 2 B-Aut. 1p.	63A/30mA/4p.	M 32	2858316
	1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 6 sockets with earthing contact	1 C-Autom. 3p. 1 C-Autom. 3p. 6 B-Autom. 1p.		M 32	2848301

- other models on request / subject to modification and errors -

	Suspension ar	ution boxes	CEZ		
Output Socters	Rautone of or	Residual Current Land	Scien Size	Nộ.	olid Rubber Housing <sup>Series</sup> TRIER
1 CEE 400V 32A 5p. and 2 CEE 400V 16A 5p. and 2 sockets with earthing contact	1 C-Autom. 3p. 1 C-Autom. 3p. 2 B-Autom. 1p.	63A/30mA/4p.	M 32	2858374	
1 CEE 400V 32A 5p. and 2 CEE 400V 16A 5p. and 2 sockets with earthing contact	1 C-Autom. 3p. 1 C-Autom. 3p. 2 B-Autom. 1p.	_	M 32	2848302	
1 CEE 400V 63A 5p. and 1 CEE 400V 32A 5p. and 1 CEE 400V 16A 5p. and 2 sockets with earthing contact	 1 C-Autom. 3p. 1 C-Autom. 3p. 2 B-Autom. 1p.	63A/30mA/4p.	M 32	2858601	
4 CEE 400V 16A 5p. 4 CEE 400V 32A 5p.	4 C-Autom 3p. 4 C-Autom 3p.	_	M 32 M 32	2848125 2848303	customized production
	Queue       Sockets         1 CEE 400V 32A 5p.         and         2 CEE 400V 16A 5p.         and         2 sockets with         earthing contact         1 CEE 400V 32A 5p.         and         2 CEE 400V 16A 5p.         and         2 CEE 400V 16A 5p.         and         2 sockets with         earthing contact         1 CEE 400V 63A 5p.         and         1 CEE 400V 16A 5p.         and         2 sockets with         earthing contact	Que by the by	QuestionValue<	Out         Out         The fight and the set of the set o	Question         Control         Contro         Control         Control <t< td=""></t<>

- other cable lengths and further models on request / subject to modification and errors -

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# ELSPRO Solid Rubber Safety Distribution Boxes Series TRIER

(€▲ ◈ ۞ □



Dimensions: H 380 mm, W 260 mm, D 150 mm



Lexan transparent hinged windows

- V2A axis, 6 mm Ø
- stainless-steel spring with high elastic force
- with knurled-head screws on request

The solid rubber housing is produced using a press and vulcanization process. In combination with the special material employed, this allows us to achieve those qualities that set this distribution box apart.

#### **Special Features:**

- over 600 already produced versions guarantee a custom-tailored solution on demand
- interior space allows cross-sections to be connected (up to 35 mm2) and 2 cables to be laid (5 x 35 mm2) - feed and outgoing lines
- 6 undetachable lid screws made of V2A steel allow the lid to be attached to the base tightly and securely
- under the impact-resistant Lexan transparent hinged windows there is room for panel plugs and fuses up to max. 12 TE
- protruding housing sections in the window area protect the window against mechanical damage
- wall-mounted distribution boxes are available with a broad range of options: shafts, racks, tripods, and wall-mounted consoles; hot-dip galvanized, painted, or plastic-powder-coated; made of steel or V2A steel; various sizes and forms

- → no compromises PRACTICABILITY
- → the supply cables can be honed, which enables one to do without additional junction boxes TIME AND COST SAVINGS
- → no-rust screws that can be loosened anytime -MAINTENANCE FREE
- measures for safeguarding people, devices, and cables as well as short-circuit protection all conform to valid regulations SAFETY
- no additional protective cover necessary COST REDUCTION
- → ENERGY ISLANDS for all purposes and sites. Optimally suited for outdoor use as well. LONG SERVICE LIFE guaranteed

#### ACCESSORIES:

 V2A wall-mounting brackets (pre-installed on request)

#### ELSPRO Solid Rubber Safety Distribution Boxes Series WIESBADEN

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You demand superior quality! Our wall-mounted distribution boxes meet your demands.

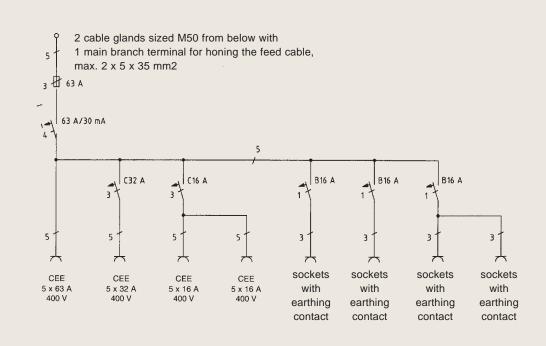
In all sectors - industry, trade, and commerce - sockets are needed that prove to be durable, sturdy, and safe.

Our wall-mounted distribution boxes are suitable for both indoor and outdoor use.



#### Configuration examples 1 and 2 of over 130 already assembled varieties

Output/Sockets	Fuse Protection	RCD Type A I I⊿	Entry Screw Size	Order No.
1 CEE 400V 63 A 5p. 1 CEE 400V 32 A 5pol. 2 CEE 400V 16 A 5pol. 4 sockets with earthing contact	1 Neozed 3p. 1 C-Autom. 3p. 1 C-Autom. 3p. 3 B-Autom. 1p.	63 A/30 mA/4p.	1 x M50 or 2 x M50 with main branch terminal 2 x 5 x 35 mm2	28786002 28786001



- other models on request / subject to modification and errors -

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#### ELSPRO Solid Rubber Safety Distribution Boxes Series WIESBADEN

### (€▲ \* 🗇 🗆

170.



 V2A axis, 6 mm Ø
 stainless-steel spring with high elastic force

 undetachable knurled-head screws

380



The solid rubber housing is produced using a press and vulcanization process. In combination with the special material employed, this allows us to achieve those qualities that set this distribution box apart.

#### **Special Features:**

- over 130 configurations guarantee a solution for (almost) every operating site
- generous interior space and a depth of 95 mm allow for the connection of large cross-sections and for the installation of feed and outgoing lines
- a hinged lid facilitates unimpeded access during installation and maintenance work
- 9 undetachable lid screws made of V2A steel ensure that the lid is securely fastened to the base
- over 130 configurations guarantee a solution for (almost) every operating site
- under the impact-resistant Lexan transparent hinged windows there is room for panel plugs and fuses up to max. 18 TE
- protruding housing sections in the window area offer enhanced protection for the window
- wall thickness of up to 15 mm and the special material employed make the distribution box extremely mechanically sturdy and impactresistant

- → no compromises PRACTICABILITY
- → junction boxes no longer necessary COST SAVINGS
- $\rightarrow$  TIME SAVINGS
- → he distribution box can be effortlessly opened and closed, even after years have passed
- measures for safeguarding people and cables as well as short-circuit protection all conform to valid regulations
- measures for safeguarding people and cables as well as short-circuit protection all conform to valid regulations
- $\rightarrow$  no additional protective cover necessary
- → long service life, even under rough operating conditions

- other models on request / subject to modification and errors -

# Safety and Isolation Transformers in Solid Rubber Housing



# **ELSPRO Solid Rubber Distribution Boxes** with Transformers

# Safety Transformers and Isolation Transformers according to VDE 0570 / DIN EN 61558

#### - Housing Features

- · made of top-quality solid rubber (butyl rubber)
- · high mechanical resistance, unbreakable
- · hardness of at least 96 Shore in accordance with DIN 53505
- resistant to aging and corrosion
- · weatherproof and cold-resistant
- self-extinguishing and fire-resistant according to VDE 0471/DIN EN 60695

#### - Transformer Selection

- · one-phase transformers or multi-phase transformers
- · input voltage 12 V to 500 V
- · output voltage 12 V to 500 V
- · nominal capacity 120 VA to 4500 VA

#### - Primary Safeguards

- activating a thermal overcurrent circuit breaker matched to the primary current
- optimal transformer protection in the case of an overload or short circuit
- reliable switch performance thanks to special switching mechanism
- positively trip-free mechanism
- switch reset at the press of an external button after error has been corrected

#### - Secondary Safeguards

- fuses assigned to output sockets
- choice of line circuit breaker or safety fuse systems
- accessible both externally and internally

#### - Connector Systems

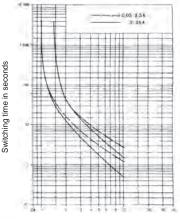
- VDE tested and approved
- nickel-plated contacts
- individually exchangeable
- fastened with ISO bolts

#### - Features of Assembled Distribution Boxes

- splashproof
- highly insulated
- dustproof
- lid screws made of V2A steel
- rustproof external metal parts

- with colored engraving on request, e.g. company name

Time-current characteristic (total switch-off time at nominal voltage) Ambient temperature 23°C



Multiples of rated current

Safety	Trans	sforme	ers	from 120	VA-4500VA	Mobile	Protection Class 2
Colt Annoer	Output	*	Socrets Nou	×	Output Order	<i>1</i> %.	C € ▲ ☀ ⊕ K 2 Solid Rubber Housing
Power	Volta	ge ~	Output				Series
120 VA	230V	24V	CEE 24V 16A 2p.	0,5A	_	3080101	
120 VA	230V	42V	CEE 42V 16A 2p.	0,5A	_	3080102	ESSEN
160 VA		24V	1 CEE 24V 16A 2p.	0,7A	_	3380170	
160 VA	230V	24V	2 CEE 24V 16A 2p.	0,7A	_	3380185	
350 VA	230V	24V	1 CEE 24V 16A 2p.	1,5A	_	3380186	
350 VA	230V	24V	2 CEE 24V 16A 2p.	1,5A	_	3380165	HILDEN
							INEDEN
160 VA	230V	42V	1 CEE 42V 16A 2p.	0,7A	_	3380183	
160 VA		42V	2 CEE 42V 16A 2p.	0,7A	_	3380171	
							<u></u>
350 VA		42V	1 CEE 42V 16A 2p.	1,5A	—	3380169	
350 VA	230V	42V	2 CEE 42V 16A 2p.	1,5A	_	3380182	HILDEN
500 VA	230V	24V	2 CEE 24V 16A 2p.	2,0A	2 Neozed 1p.	3480101	
750 VA		24V	3 CEE 24V 16A 2p.	3,0A	3 Neozed 1p.	3480102	
1000 VA	230V	24V	4 CEE 24V 16A 2p.	4,0A	4 Neozed 1p.	3480103	
500 VA		42V	2 CEE 42V 16A 2p.	2,0A	—	3480104	
750 VA		42V	3 CEE 42V 16A 2p.	3,0A	—	3480105	
1000 VA	230V	42V	4 CEE 42V 16A 2p.	4,0A	2 Neozed 1p.	3480106	FREIBURG
1500 VA <sup>1)</sup>		24V	4 CEE 24V 16A 2p.	6,0A	4 Neozed 1p.	3980105	
2000 VA <sup>1)</sup>	230V	24V	6 CEE 24V 16A 2p.	8,0A	6 Neozed 1p.	3980101	
2500 VA <sup>1)</sup>		24V	6 CEE 24V 16A 2p.	10,0A	6 Neozed 1p.	3980102	
1500 VA <sup>1)</sup>		42V	4 CEE 42V 16A 2p.	6,0A	4 Neozed 1p.	3980106	
2000 VA <sup>1)</sup>		42V	6 CEE 42V 16A 2p.	8,0A	6 Neozed 1p.	3980103	
2500 VA <sup>1)</sup>	230V	42V	6 CEE 42V 16A 2p.	10,0A	6 Neozed 1p.	3980104	AACHEN
	– otł	ner model	s on request / subject t	o modificat	ion and errors –		3 m feed line with contour plug 1) inrush current limiter

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ISPRO<sup>®</sup> 3.1

06.21

Mobile Protection Class 2			ety Trans	formers		von 120VA-4500VA		
CEA * C K2 Solid Rubber Housing Series NURNBERG	Joir P Power	mere	ho <sup>st</sup> Voltage ~	Output Gockets Output	Input	Old	Order NO.	
	3000 VA 4000 VA	230V 230V	24V 24V	10 CEE 16A 2p. 10 CEE 16A 2p.	13A 16A	10 B-Autom. 1p. 10 B-Autom. 1p.	3640101 3640109	
	3000 VA 4000 VA	230V 230V	24V 24V	10 CEE 16A 2p. 10 CEE 16A 2p.	13A 16A	10 B-Autom. 1p. 10 B-Autom. 1p.	3640102 3640110	
	all models v	with inrus	sh current limit	ter				



#### Profile:

- 2 large carrying handles with full-length steel reinforcement ensure secure transport and allow the unit to be carried by 2 people
- the frontal array guarantees unimpeded access to all sockets, even when high in number
- in the distribution box interior, carrier elements and lateral rods ensure necessary support for the heavy transformers
- all fixtures are smoothly and easily accessible by a specialized electrician for on-demand maintenance
- all one-phase transformers are equipped with an inrush current limiter in order to avoid inadvertent tripping of the mains fuse (e.g., B automats)
- an added heat protection tube (H07 V-K for all insulated wires) permanently rules out isolation errors and short circuits in the wiring
- a broad number of different transport carts counts among the available accessories
- further outstanding features and qualities distinguish the ELSPRO safety and isolation transformers and guarantee high quality and safety standards

Safety	Trans	sform	ers	from 120	VA-2000VA 🖯	Wall-	Mounted
Lott Anderson	* OUTOUT	10	Sochers Inou	×	Output Order	No.	C € ⚠ ☀ ۞ Solid Rubber Housing
Power	Voltag	ge ~	Output				Series
160 VA 160 VA	230V 230V	24V 24V	1 CEE 24V 16A 2p. 2 CEE 24V 16A 2p.	0,7A 0,7A		3388164 3388167	
350 VA 350 VA	230V 230V	24V 24V	1 CEE 24V 16A 2p. 2 CEE 24V 16A 2p.	1,5A 1,5A		3388168 3388161	HILDEN
							HILDEN
160 VA 160 VA	230V 230V	42V 42V	1 CEE 42V 16A 2p. 2 CEE 42V 16A 2p.	0,7A 0,7A		3388170 3388169	
350 VA 350 VA	230V 230V	42V 42V	1 CEE 42V 16A 2p. 2 CEE 42V 16A 2p.	1,5A 1,5A		3388162 3388166	HILDEN
500 VA	230V	24V	2 CEE 24V 16A 2p.	2,0A	2 B-Aut. 1p.	3748102	
500 VA	230V	42V	2 CEE 42V 16A 2p.	2,0A	_	3788106	REMSCHEID
1000 VA 2000 VA - not illustrated -	230V 230V	24V 24V	3 CEE 24V 16A 2p. 6 CEE 24V 16A 2p.	4,0A 8,0A	3 B-Aut. 1p. 6 B-Aut. 1p.	3848101 3848102	
1000 VA 2000 VA - not illustrated -	230V	42V 42V	3 CEE 42V 16A 2p. 6 CEE 42V 16A 2p.	4,0A 8,0A	3 B-Aut. 1p. 6 B-Aut. 1p.	3848103 3848104	TRIER

SPRO® 3.3

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- other models on request / subject to modification and errors -

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11.24

Mobile and Stationary			ety Tra	Insforme	ers			50 VA	
CEA& K2 Solid Rubber Housing Series	Volt-P Power	Inpere Input	t Outp <sup>il</sup> age ~	socket	Caple and Water	S Crossin	ection Light TY	order ho	J.
1	50 VA	230 V*	24 V	0,2 A	30	2 x 2,5	HSW <sup>1</sup>	3X80903	
LRX			42 V					on request	
2	50 VA	230 V*	24 V	0,2 A	30	2 x 2,5	QS <sup>2</sup>	3X80905	
LRX			42 V					on request	

\* 3 m special line INDUSTRIEFELX 07HT 2 x 1,0 mm<sup>2</sup> with contour plug

50 VA 230 V\*\*

24 V

42 V

1 = solid rubber handheld led lamp

2 = inspection lamp

The power cable is firmly connected. With easily removable illuminated lamp!

0,2 A

The safety transformer is laterally flange-mounted. Low voltage of 24 V is conducted through collector rings.

30

9 W

20 W

24 V

24 V

2 x 2,5

HSW<sup>1</sup>

 $QS^2$ 

HSW LED (page 21.11)

QS L05 (page 21.21) 3188947

3188948

on request



\*\* cable gland M20

- other models on request / subject to modification and errors -

	ation Tr	ansfo	ormers	s f	rom 120'	VA-4500VA 🖯	Mobi	le Protection Class 2
LOK T	no <sub>ur</sub> , Power	Output		TOKS Y			No.	CEA * CK2 Solid Rubber Housing
	Power	Volta	ige ~	Output				Series
	120 VA	230V	230V	1 socket with earthing contact -without <del>上</del> -	0,5 A	_	3080001	Kehtingt           With Bester
	125 VA	230V	230V	1 socket with earthing contact -without <del>上</del> -	0,5 A		3380006	HILDEN
	350 VA	230V	230V	1 socket with earthing contact -without <del>上</del> -	1,5 A	_	3380005	HILDEN
				1 socket with				
	500 VA	230V	230V	earthing contact -without 🛓 -	2,0 A	—	3480001	
	750 VA	230V	230V	1 socket with earthing contact -without	3,0 A	_	3480002	
	1000 VA	230V	230V	1 socket with earthing contact -without <del>上</del> -	4,0 A	_	3480003	FREIBURG
				1 socket with				
	1500 VA <sup>1)</sup>	230V	230V	earthing contact -without 🛓 -	6,0 A	_	3980003	
	2000 VA <sup>1)</sup>	230V	230V	1 socket with earthing contact -without <del>上</del> -	8,0 A	_	3980001	Attack Reference
	2500 VA1)	230V	230V	1 socket with earthing contact -without <del>_</del> -	10 A	_	3980002	AACHEN
		– ot	her mod	els on request / subject to	modificat	tion and errors –		* 3 m feed line with contour plug <sup>1)</sup> inrush current limiter

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3.5

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Profile of Order No. 5691003

Mobile isolation transformer in an ELSPRO solid rubber distribution box on a trolley from the NÜRNBERG series

Input: 3 m cable INDUSTRIEFLEX® 07 with CEE plug 5 x 16 A/400 V Fixtures: 1 three-phase transformer with 3 separate output windings Primary power: 4500 VA, 3x400 V

Secondard power: 3x1500 VA, 3x230 V single-phase

Switching group: Diii Nominal frequency: 50-60 Hz

- primary safeguarding via a motor protection switch 6 A/3-pol.

Output: 3 sockets with earthing contact; also secured without earthing contact by way of 3 MCB 6 A/1 pol. in B type

- each with an engraved caution sign:

#### ATTENTION!

Connect only 1 consumer to each earthing contact socket!

#### Model Features:

- highly insulated

- K2 type
- transformer according to VDE 0570
- splashproof
- the circuit breakers are externally accessible and are situated behind 2 transparent hinged windows for protection
- the steel frame of the trolley features a plastic powder coating
- 2 ball-bearing-mounted solid rubber tires, 200 mm in diameter
- compact structural shape and favorable center of gravity

3 m feed line with contour plug
 3 m feed line with CEE plug, 400 V 16 A 5p.

	Isolati	on Tr	ansfo	r <b>mers</b> f	rom 120	VA-2000VA 🖯	Wall-Mo	ounted Distribution Boxes
LORA	nno <sub>ur</sub> , no <sub>ste</sub> Power	Outpu	r r	Socress Indu		Output Order	No.	C € ▲ ☀ ⊕ Solid Rubber Housing
	Power	Volta	ige ~	Output				Series
	125 VA	230V	230V	1 socket with earthing contact -without ≟ -	0,5 A	_	3388011	•
	160 VA	230V	230V	1 socket with earthing contact -without ≟-	0,7 A	_	3388012	HILDEN
	350 VA	230V	230V	1 socket with earthing contact -without <del>_</del> -	1,5 A	_	3388010	
	500 VA	230V	230V	1 socket with earthing contact -without ≟ -	2,0 A	_	3788004	REMSCHEID
	1000 VA	230V	230V	1 socket with earthing contact -without ≟ -	4,0 A	_	3888001	
	2000 VA -without fig	230V	230V	1 socket with earthing contact -without <u>+</u> - els on request / subject to	8,0 A		3888002	* screw size M

- other models on request / subject to modification and errors -

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### Solid Rubber Cable Reels Spring Cable Reels Cable Trolleys



























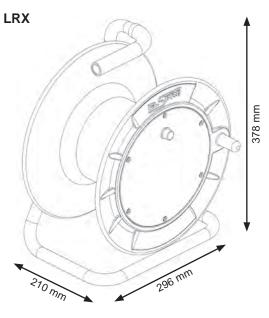
### **ELSPRO Solid Rubber Cable Reels**

#### suitable for rough operating conditions in industry, trade, and at construction sites

- according to DIN VDE 0623, section 100/EN61316
- reel body made of solid rubber
  - maintenance-free and unbreakable
  - cold-resistant and thermally stable
  - highly flame-resistant and self-extinguishing
  - resistant to corrosion, oil, acid, and lye
  - utterly weatherproof and ageing resistant
- kink-free cable entry
- heavy-duty strain relief for push, pull, and against torsion
- steel-tube frame
  - ergonomic
  - robust
  - stable
  - plastic powder coated
- insulated carrying handle
- inside parking and dispensing brakes
- highly insulated and splashproof
- cable type: INDUSTRIEFLEX®07 HT see reg. no. 8
- with colored engraving on request

#### **Connector System**

- VDE-test and certified
- nickel-plated contacts
- individually replaceable
- fastened with ISO bolts



Winding Core 146 mm Ø

LRG

Winding Core 185 mm Ø

# LRX our number 1

2

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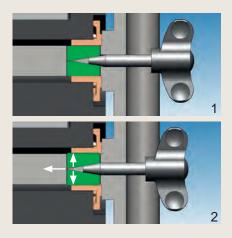
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#### SPECIAL FEATURES

- K + M = X  $\rightarrow$  advantages of the proven LRK and LRM series combined in one cable reel
- new compact industrial design
- optimised shape, weight reduction and ergonomics
- large front cover for many variants, e.g. max. 5 x sockets with earthing contact
- front cover with injected PU seal
- adapted shape protects the brake wing screw
- optimised/small gap size between frame and reel body prevents jamming of the cable
- with internal locking and unwinding brake, braking efficiency adjustable by means of the wing screw (see diagrams below)
- soft cable entry prevents wire breaks by means of generous bending radii
- with overheating protection
- · LED with switch optionally for initial lighting or illumination of a small construction site
- carrying frame optionally with clamping shell feet
- robust and stable tube frame, plastic powder coated
- protectively insulated and splash-proof
- compliant with the test principle in accordance with GS-ET-35 (principles for the testing and certification of cable reels for construction and installation sites)



#### Principle of the Inside Brake:

- The wing screw has a tapered tip that rests between the two brake blocks (see fig. 1).
- By screwing in the wing screw, the brake blocks are pressed apart (see fig. 2) and exert force on the nylon bearing bush, which in turn is tightly connected to the rubber reel body.
- Braking pressure can be continually increased by turning the wing screw.
- If the wing screw is turned back, then pressure on the brake is reduced and the brake blocks return to their original position.

- other models on request / subject to modification and errors -



with overheating protection

insulated carrying handle

equipment variants with different safety features possible

the shape of the carrying frame protects the wing screw of the internal brake from damage



the mar vari

alternatively with integrated LED light with switch

the optimised gap size between carrying frame and reel body prevents jamming and possible damage to the cable

the large front cover allows many different equipment variants

optionally with clamping shell feet









- other models on request / subject to modification and errors -

ELSPRO Elektrotechnik GmbH & Co. KG Kleinhülsen 47 · 40721 Hilden · Germany

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#### Solid Rubber Cable Reels

Series LRX

Sockets

NUMBER OUTOUT

**Configuration Examples** 

PIUOS

Order No.

4X00001

with overheating protection

### **€€**⊗∆�⊡K2









3 sockets with earthing contact	33 40 50	3 G 1,5	with earthing contact	4X00002 4X00003 4X00004
3 sockets with earthing contact	25 33 40 50	3 G 2,5	with earthing contact	4X00021 4X00022 4X00023 4X00027
3 sockets with earthing contact IP 66/68	25 33 40 50	3 G 1,5	with earthing contact IP 66/68	4X00041 4X00042 4X00043 4X00044
3 sockets with earthing contact IP 66/68	25 33 40 50	3 G 2,5	with earthing contact IP 66/68	4X00061 4X00062 4X00063 4X00066
2 sockets with earthing contact LED + switch	25 33 40 50	3 G 1,5 3 G 1,5 3 G 1,5 3 G 1,5 3 G 1,5	with earthing contact	4X00081 4X00082 4X00083 4X00084
3 sockets with earthing contact with PRCD-S	25 33 40 50	3 G 1,5	with earthing contact	4X10001 4X10002 4X10003 4X10004
3 sockets with earthing contact with PRCD-S	25 33 40 50	3 G 2,5	with earthing contact	4X10021 4X10022 4X10023 4X10025

Crossed Inn

Cable not Neters

25

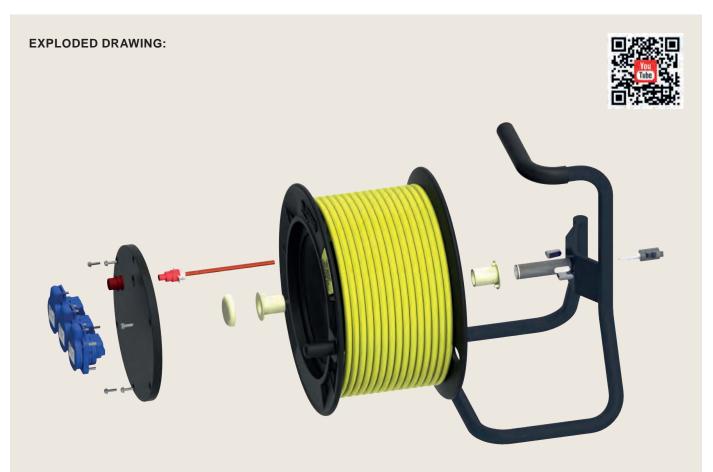
- other models on request / subject to modification and errors -



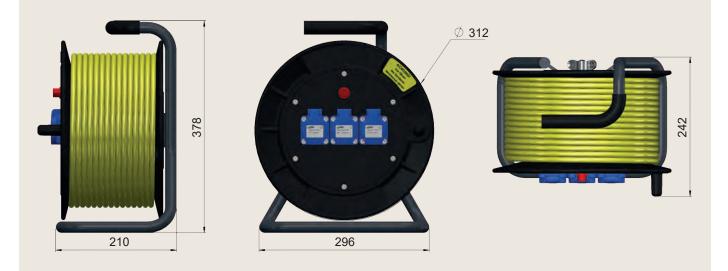
- other models on request / subject to modification and errors -

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#### DIMENSIONS:



- other models on request / subject to modification and errors -

Solid Rubber Cable Reels Series LRG **Configuration Examples** Cross Section Meters Order No. Cable Length Number Output Sockets Plugs with overheating protection 1 pol. / 3 pol. **(€ \* △ ⊕ □**K2 4 sockets with 60 3 G 2.5 4G02203 with earthing earthing contact contact (no fig.) 2 CEE 400V 16A 5p. 50 5 G 2.5 CEE 400V 16A 5p. 4G01107 and 3 sockets with earthing contact 1 CEE 400V 32A 5p. 5 G 6.0 CEE 400V 32A 5p. 40 4G53324 and 1 CEE 400V 16A 5p. protected with 1 C-Autom. 3p. and 3 sockets with earthing contact protected with 3 B-Autom. 1p. 1 residual-current circuit breaker RCD Type A I\_=40A l \_\_\_\_=30mA 4p. 40 5 G 6.0 CEE 400V 32A 5p. 4G43332 1 CEE 400V 32A 5p. - waterproof - and - waterproof -2 CEE 400 V 16A 5p. - waterproof protected with 2 C-Autom. 3p. and 1 socket with earthing contact - water-pressure-tight protected with 1 B-Autom. 1p. 5 CEE 42V 16A 2p. 80 2 G 4.0 CEE 42V 16A 2p. 4G01132 2 G 4.0 4G01114 4 CEE 42V 16A 2p. 50 CEE 42V 16A 2p. 2 G 4.0 CEE 24V 16A 2p. 4G01112 4 CEE 24V 16A 2p. 50

- other models on request / subject to modification and errors -

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#### ELSPRO Solid Rubber Cable Reels Series LRG

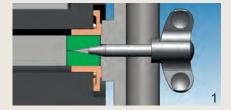


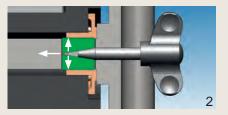
Back-friendly, bilateral transport by two people

Testing standard GS-ET-35 specifies that the overall mass of a cable reel being appropriately transported by one person without auxiliary means cannot exceed 25 kg!

#### The following apply as well:

- Directive 90/269/EWG
- Load Handling Regulation (LasthandhabV)
- German Occupational Safety Act (ArbSchG)
- DIN EN 1005-2 "Safety of machinery Human physical performance Part 2: Manual handling of machinery and component parts of machinery"
- BGHM-I 101 (BGI 523)
- Exposure Limit Values 2019 Safety and Health in the Workplace (IFA Report 1/2019)





• The wing screw has a tapered tip that rests between the two brake blocks

Principle of the Inside Brake:

- (see fig. 1). By screwing in the wing screw, the brake blocks are pressed apart.
- By screwing in the wing screw, the brake blocks are pressed apart (see fig.
   2) and exert force on the nylon bearing bush, which in turn is tightly connected to the rubber reel body.
- Braking pressure can be continually increased by turning the wing screw.
- If the wing screw is turned back, then pressure on the brake is reduced and the brake blocks return to their original position.

# Meets various special requirements where an interior barke is necessary on cable reels, e.g., German Federal Agency for Technical Relief (THW), German Red Cross (DRK), etc.



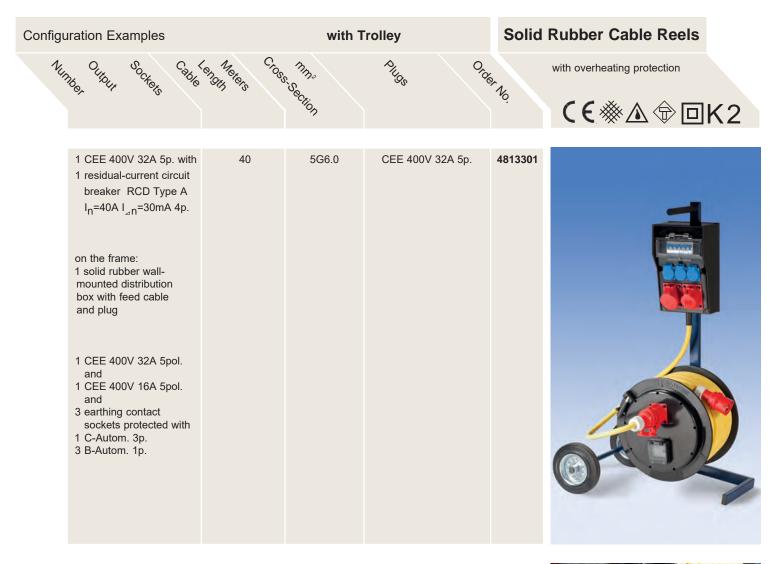
#### ACCESSORIES:

 Stainless-steel trolley with solid rubber wheels and rubberized handle Order No.

JOG48

Even 40 kg can be moved effortlessly: hook up - tilt - ready to go





#### **Characteristics and Special Features:**

- A foldable rotary handle for easy reeling in of the cable
- large solid rubber front panel with integrated rubber seal and eight lid screws made of V2A steel with an M4 thread
- wear-free nylon bushing guarantees easy and even running of the reel body along the axis
- robust and sturdy tubular carrying frame, fashioned from a single piece of metal and powder-coated
- favorable center of gravity and the ergonomic handle foster high carrying comfort
- conforms to VDE 0623-100, DIN EN 61316
- carrying handle, rotary handle, and reel body made of insulating material according to DGUV 203-006 / 203-004
- for models with three-phase sockets, the 3 pol. overheating protection runs via an interior power contactor
- for models with a residual-current circuit breaker (RCD), deactivation due to overheating is carried out by the RCD





- other models on request / subject to modification and errors -

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#### ELSPRO Cable Reeling Drums Typ LR600F and LR700F



LARGE cable cross-sections

LONG cable lengths

Easy to do with the "THE 2"!

Temporary power supply must often be achieved using large cable cross-sections and long cable lengths. These cables are then so heavy that they cannot be handled by one person alone.

#### Frame

The plastic-powder-coated steel frame is designed to be torsion-resistant in order to ward against mechanical impact. A stable bar serves as a grip. The "THE 2" reels offer optimal support in laying and neatly rolling up again even the heaviest and longest of cables, making the process manageable and timesaving as well. The operational readiness of the lines is therefore consistently ensured.

#### Tires

Stable footing and facile movement of the cable reel are promoted through two solid rubber fixed wheels and two solid-rubber castor wheels, each with a wheel diameter of 200 mm.

Туре	Model	Dimensions (L x W x H)	Weight	Order No.
LR600F	without cable	700 x 600 x 800 mm	78.0 kg	LR600F
LR600F	* 40 m cable 5 G 16 mm²	700 x 600 x 800 mm	137.0 kg	LR600F/CS40K6
LR700F	without cable	1,050 x 700 x 800 mm	90.0 kg	LR700F
LR700F	* 150 m cable 5 G 16 mm²	1,050 x 700 x 800 mm	312.0 kg	LR700F/CS150K6
LR700F	** 80 m cable 5 G 35 mm²	1,050 x 700 x 800 mm	315.0 kg	LR700F/CS80KX

\* with CEE plug and CEE connector 400V 63A 5p.

\*\* with CEE plug and CEE connector 400V 125A 5p.

- other models on request / subject to modification and errors -

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- 1 Hand-Operated Safety Crank Handle
- when not in use, the handle is disengaged
- handle is engaged through axial movement (pressing motion)
- by "letting go" of the handle, it automatically disengages

#### 2 Chain-Protection Cover

The chain is situated under a protective cover to prevent the user from touching the chain drive and the braking system, which could lead to accidental injury.



#### 3 Chain Drive with Two Gear Wheels

The chosen gear transmission ration (10:44) for the two gear wheels is designed to ensure easy reeling in, even in the case of heavy loads ("one-man operation").

#### 4 Braking System

The fixed and saddle brakes with their brake pads exert pressure on the large gear wheel that is situated along the drum axle. The brake caliper distributes force continuously with even flow along both sides of the gear wheel.

#### 5 Ball-Bearing Mounted Drum Body

The stable, ball-bearing-mounted axle of the drum body is enclosed by two pedestal bearings. This allows the heavy drum body to turn with ease and avoids wear.

#### Advantages ...

- the crank handle only induces traction force at the drive shaft during active use; by contrast, when the shaft is unintentionally activated, the disengaged handle does not turn
- chain drive and braking system are fully encased
- chain drive with gear transmission ratio of 10:44
- ball-bearing mounted drum body





#### ... and Benefits:

- no risk of injury due to unintentionally rotating crank handle!
- → no risk of injury from drive since it is inaccessible!
- $\rightarrow$  one-man operation possible!
- even-flowing braking effect and drive protection due to continuous strain; accidental unreeling is prevented, and readying the cable made easier: "cable flow as smooth as possible – as strong as necessary!"
- → smooth, protective unreeling

### **€** ⊡ ⊗ ∆ ∆ K2

### Spring hose reels – the solution for more safety and cleanliness in the workplace

#### Fields of Application:

- industry
- trade
- commerce

Disorganized cables lying on the ground, often a cause of accidents, are a thing of the past. Cables that are not needed for the time being are securely and neatly rolled up until the next project. Delivered with a locking mechanism in place. The cable can be fixated at almost any length and thus allows for a traction-free working experience. The locking mechanism can be deactivated when necessary.



Туре	Voltage	Input	Output	Dimensions (W x H x D)	Order No.
SYLT 1	230 V	bend-protection grommet	12 m cable 3 G 1.5 mm <sup>2</sup> with earthed connector	170 x 315 x 350 mm	4689001SI
SYLT 2	230 V	bend-protection grommet	17 m cable 3 G 1.5 mm <sup>2</sup> with earthed connector	180 x 375 x 400 mm	4689050SII

#### **SPECIAL FEATURES:**

- versatile installation possibilities for wall, floor, and ceiling
- closed, corrosion-free housing made of polyoxymethylene; drum made of polypropylene
- highly insulated and splashproof
- with a wall console that can be swiveled at 160°
- spring encapsulated in a cassette
- safety locking device that can be switched on or off by hand
- 3 collector rings (L1-N-PE), max. 10 ampere
- overheating protection switch with manual reset
- adjustable cable stopper
- equipped with flexible INDUSTRIEFLEX® 07 cable

- → flexible mounting of the spring cable reels according to operating site and workplace
- → long service life, even under extremely rough operating conditions: COST SAVINGS!
- → high measure of electrical SAFETY, even outdoors and in damp spaces
- → smooth motion in all directions guarantees excellent handling while also protecting the cable
- → simple and danger-free replacement without needing special tools
- → if safety locking device is activated, the cable can be tightly fixated at any given unreeled length
- dual contact system for the PE conductor = double the SAFETY
- → when line overload occurs, power is shut down FIRE PROTECTION
- protection against back-reeling of the entire line; individual length adjustment of sagging cable
- extended service life of the reeled up cable; for detailed features and qualities, see register group 8

- other models on request / subject to modification and errors -

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#### ELSPRO Spring Cable Reels Series AMRUM

### **C€**♦♠▲K2

Spring cable reels alleviate tripping hazards that arise from lines lying on the ground. Neatly wound cables not only facilitate a convenient and safe working environment but also protect the materials used. Cables that are left lying around are frequently run over or subjected to heightened mechanical strain. This results in premature wear and tear of the materials.

#### What advantages do spring cable reels offer?

- reduction of accident risks
- efficient use of materials
- longer service life = cost reduction



Vo	oltage	Input	Output	Order No.
2	30 V	1.0 m power supply cable $3 \times 2.5 \text{ mm}^2$	25 m cable 3 G 2.5 mm <sup>2</sup> with earthed connector	4685010A
4	00 V	1.0 m power supply cable 5 x 2.5 mm <sup>2</sup>	22 m cable 5 G 2.5 mm <sup>2</sup> with CEE connector 5 x 16A/400V	4685110A

#### **SPECIAL FEATURES:**

- versatile installation options for wall, floor, and ceiling
- galvanized steel tube frame and corrosion-free drum made of fiberglass-reinforced plastic
- sprayproof cable reel; splashproof standard connector system models
- cable discharge via 4 reels, adjustable to 60°
- encapsulated spring
- exterior, removable 7-fold locking mechanism
- 5 collector rings (L1-N-PE) with carbon brushes, max. 10 ampere
- adjustable cable end stop
- equipped with flexible INDUSTRIEFLEX® 07 cable

- flexible mounting of the spring cable reels according to operating site and workplace
- long service life, even under extremely rough operating conditions: COST SAVINGS!
- perfectly suited for safe implementation, even outdoors and in damp spaces
- low-abrasion cable routing protects the cable and extends its service life: COST SAVINGS
- simple and danger-free replacement without needing special tools
- if safety locking device is activated, the cable can be tightly fixated at almost any given unreeled length and offers a traction-free working experience; if the locking system is dismantled, the cable is constantly subject to tension
- excellent low-maintenance and safe contact system
- protection against back-reeling of the entire line; individual length adjustment of sagging cable
- extended service life of the reeled up cable; for detailed features and qualities, see register group 8

- other models on request / subject to modification and errors -

### Spring hose reels are the effective solution for more safety and cleanliness at the workplace

#### Fields of Application:

- industry
- trade
- commerce

Disorganized hoses lying on the ground frequently cause work-related accidents. Spring hose reels promote order in the workplace, which helps avoid dangerous tripping hazards and protects the materials used.

Air and water hoses are securely and neatly rolled up, ready to use at any time.

Delivered with a locking mechanism in place. The hose can be fixated at almost any length and thus allows for a traction-free working experience. The locking mechanism can be deactivated when necessary.



Туре	Input	Output	max. operating pressure MPa (bar)	Dimensions (W x H x D)	Order No.
BORKUM 1	connection nozzle for 3/8" hose	12 m 1/4" hose with connection thread	1.2 (12)	170x315x350mm	4602201BI

1					
Туре	Input	Output	max. operating pressure MPa (bar)	Dimensions (W x H x D)	Order No.
BORKUM 2	connection nozzle for 3/8" hose	10 m 3/8" hose with connection thread	1.5 (15)	180x375x400mm	4602250BII

#### SPECIAL FEATURES:

- versatile installation possibilities for wall, floor, and ceiling
- closed, corrosion-free housing made of polyoxymethylene; drum made of polypropylene
- includes a wall bracket with 160° swivel range
- spring encapsulated in a cassette
- safety locking device that can be switched on or off by hand
- with adjustable hose stopper
- equipped with heavy-duty PUR/PVC hose featuring cord reinforcement

- flexible mounting of the spring cable reels according to operating site and workplace
- → long service life, even under extremely rough operating conditions: COST SAVINGS!
- smooth motion in all directions protects the hose while offering superb handling
- → simple and danger-free replacement without needing special tools
- if safety locking device is activated, the hose can be tightly fixated at any given unreeled length
- protection against back-reeling of the entire line; individual length adjustment of sagging hose
- → high durability, long service life

- other models on request / subject to modification and errors -

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Spring hose reels – the solution for more safety and cleanliness

- fewer work accidents
- less hose wear
- more efficient use of materials

Spring hose reels provide enhanced order in the workplace and reduce the risk of accidents that are frequently caused by hoses lying around on the floor in an unorganized way.

Neatly rolling up hoses between work projects serves to protect materials and heighten durability.





Input	Output*	Order No.
connection nozzle for 1/2" hose	15 m 3/8" hose with hose clamp	4602201F

\* models available with 1/4" and 1/2" hoses

#### SPECIAL FEATURES:

- versatile installation possibilities for wall, floor, and ceiling
- galvanized tube frame and corrosion-free drum made of fiberglass-reinforced plastic
- hard-wearing grommet made of brass and stainless steel
- encapsulated spring
- removable 5-fold drum locking mechanism
- hose discharge via four reels, adjustable
- adjustable hose stopper
- equipped with heavy-duty PUR/PVC hose featuring cord reinforcement for max. pressure of 1.5 Mpa (15 bar)

- → flexible mounting of the spring cable reels according to operating site and workplace
- → long service life, even under extremely rough operating conditions: COST SAVINGS!
- high durability and therefore reduction of maintenance costs
- maintenance-friendly and safe; simple and danger-free replacement without needing special tools
- → thanks to a safety locking device, the cable can be tightly fixated at almost any given unreeled length and offers a traction-free working experience; if the locking system is dismantled, the air hose is constantly subject to tension
- → low mechanical load on the hose, less abrasion, EXTENDED SERVICE LIFE
- → protection against back-reeling of the entire hose line; individual length adjustment of sagging hose
- → high durability, long service life

### Distributors - Special Models according to DGUV informations 203-006 and 203-032





















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### K2 🎰 ⚠⚠ 🆓 🗇 🖸 (€

The PRCD-S (Portable Residual Current Protective Device - Safety) offers electronic residual current analysis and is run as a portable intermediate device between lines that is capable of switching between poles. It is designed for alternating currents, pulsating direct currents, and phase-controlled nominal fault currents of 10 and 30 mA, with undervoltage release, protective earthing identification and monitoring, as well as external voltage recognition.

\*PRCD = Portable Residual Current Protective Device is a new general term used even in German-speaking regions.



ADVICE : "I-ON" button have to be operated with one's bare hands (without gloves, etc.)

#### Models:

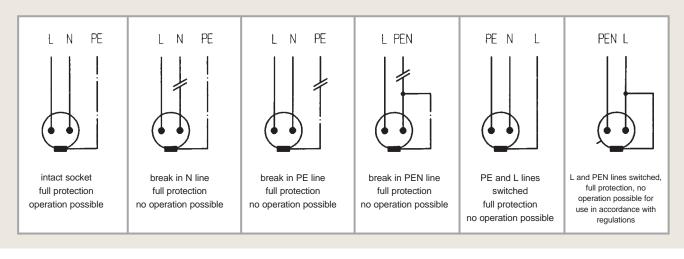
Input Plug with Cable	PRCD-S 30 mA	Output Cable with Connector		Order Number	
none	-		_	none	PRCD-S30
solid rubber earthing sockets	1.5 m	- Ser	1.5 m	solid rubber earthing sockets	PR03/S1.5K
CEE 230 V 16 A 3p.	1.5 m	1	1.5 m	CEE 230 V 16 A 3p.	PR03/CS1.5CK
solid rubber earthing sockets angle plug	0.2 m		3.0 m	solid rubber earthing sockets angle plug	PR03/W02K3

— INDUSTRIEFLEX®07 cables –

- other cable lengths and further models on request / subject to modification and errors -

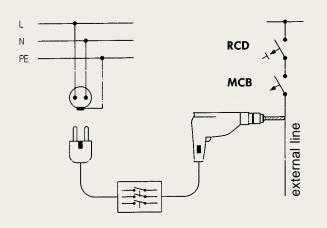
#### Extent of protection provided by the PRCD-S:

1. For errors in the connected electrical device, protection is provided in accordance with DIN VDE 0661. Residual currents caused by defective contact lead the PRCD-S to carry out all-pole disconnection. 2. Equipment failure in the case permanent installations: the PRCD-S detects all possible errors in permanent installations and then refuses to be switched on.



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- drilling into external lines
- full protection through safety measures in the external line
- PRCD-S detects the external voltage on the protective earthing yet without interrupting the protective earthing connection, thus allowing the external voltage to be activated through its own upstream RCD and MCB safety devices

#### **Use and Function**

Especially for construction and installation sites, fire departments and emergency services.

- encapsulated models for rough operating conditions
- suitable for direct connection with the feed cable of the electrical device (H07 RN-F 3G 2.5 mm2)
- can be implemented independently of whichever plug system is being used
- Iarge, easy-to-use ON and OFF buttons
- additional optical switch position display
- undervoltage release
- extremely short trigger time
- splashproof according to IP 55

- → long service life even when subjected to excessive strain
- → unit cannot be operated without personal protection if safety precautions are compulsory
- → plug types can be changed without needing to make a new purchase COST SAVINGS
- ightarrow simple and safe operation
- ightarrow operational status is easy to discern
- → prevention of uncontrolled restarting of machines after power returns
- ightarrow the user's protection level is heightened
- ightarrow designed for use in damp areas

#### **Technical Data:**

Rated voltage: 230 V/50 Hz	Nominal Current: 16 A	Protection Class: max. IP 55	Conductor Cross-Section: 1 mm2 to 2.5 mm2
Nominal Fault Current:	Ambient Temperature:		Norms and Standards:
10 or 30 mA	-25° to 40° C with a daily mean value that		- DIN VDE 0661 - DIN 40040 or
	does not exceed 35° C		DIN EN 60721

#### **ELSPRO Safety Distributors**

### (€ ❀▲ �回K2

 in accordance with rules for safety and health protection as specified by the DGUV (DGUV Information 203-006): "Selection and operation of electrical installations and equipment on building and installation sites"

Fig. 1

#### SPECIAL FEATURES:

**Technical Data about:** 

PRCD-S (Personal Safety Switch)

INDUSTRIEFLEX® 07 HT Cables

Solid Rubber Cable Reels

 when the PRCD-S is turned on, the socket that serves as a feed point is assessed to ensure proper functioning, for example:

**ELSPRO Solid Rubber Safety Distribution Boxes** 

1. the protective earthing conductor must be available and voltage-free

2. the phase and the neutral conductor must be in contact (undervoltage release)

- the PRCD-S (personal safety switch) cannot be switched on after an error has been discovered
- → an even higher degree of security is achieved, even when the equipment is supplied with power from unknown networks or uncontrolled sockets

on Pages:

5.1/5.2

4.0

8.2

1.0

- after a power failure incident, protection is offered to ensure that connected handheld instruments do not automatically shut on once power is returned, thus preventing damage
- → an endangerment of persons due to errors in permanent installations is avoided; electrical equipment cannot be used until the error has been corrected

Input Plug with Cable		PRCD-S 30 mA		Output Cable with and sockets	Order Number	Fig.
solid rubber earthing sockets angle plug	0,2 m		25 m	solid rubber cable reel 3 earthing contact sockets	4X10001	1
solid rubber earthing sockets angle plug	0,2 m		5 m	DUISBURG solid rubber distribu- tor with 4 earthing contact sockets	5410001	2
solid rubber earthing sockets	1,5 m	P	3 m	CELLE solid rubber distributor with 3 earthing contact sockets	5310001	3

Fig. 2





#### - INDUSTRIEFLEX® 07 HT cables-

- other cable lengths and further models on request / subject to modification and errors -

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PRCD-S in water-pressure-tight aluminum injection molded housing



The PRCD-S (Portable Residual Current Protective Device - Safety) offers electronic residual current analysis and is run as a portable protective system device between lines that is capable of switching between poles. It is designed for alternating currents, pulsating direct currents, and phase-controlled nominal fault currents of 10 and 30 mA, with undervoltage release, protective earthing identification and monitoring, as well as external voltage recognition.

\*PRCD = Portable Residual Current Protective Device is a new general term used even in German-speaking regions.



#### Models:

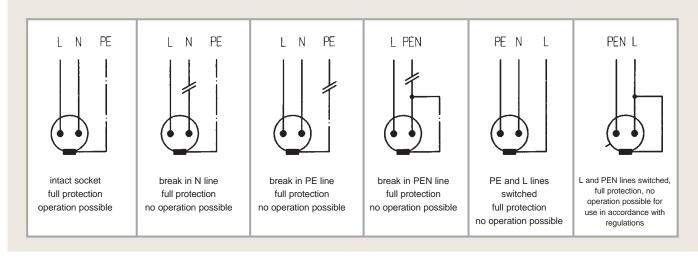
Input PRCD-S Plug – water-pressure-tight – 30 mA with Cable				Output e with Connector er-pressure-tight –	Order Number	
none	-		_	none	PD 03	
earthing contact sockets	1.5 m		3.0 m	earthing contact sockets	PD 03/S 1,5 K3	

— INDUSTRIEFLEX®07 cables —

- other cable lengths and further models on request / subject to modification and errors -

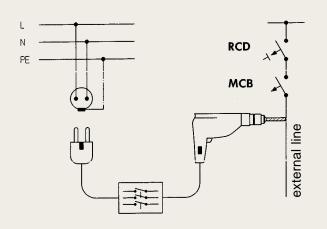
#### Extent of protection provided by the PRCD-S:

- 1. For errors in the connected electrical device, protection is provided in accordance with DIN VDE 0661. Residual currents caused by defective contact lead the PRCD-S to carry out all-pole disconnection.
- 2. Equipment failure in the case permanent installations: the PRCD-S detects all possible errors in permanent installations and then refuses to be switched on.



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- drilling into external lines
- full protection through safety measures in the external line
- PRCD-S detects the external voltage on the protective earthing yet without interrupting the protective earthing connection, thus allowing the external voltage to be activated through its own upstream RCD and MCB safety devices

#### **Use and Function**

Specially designed for construction and assembly sites.

- IP 68 protection class
- aluminum injection molded housing
- suitable for direct connection with the feed cable of the electrical device (H07 RN-F 3G 2.5 mm2)
- can be implemented independently of whichever plug system is being used
- large, easy-to-use ON and OFF buttons
- additional optical switch position display
- undervoltage release
- extremely short trigger time

- → neither prolonged submersion in water nor extreme levels of dust exposure can negatively impact functionality, efficiency, or durability
- → long service life even when subjected to excessive strain
- → unit cannot be operated without personal protection if safety precautions are compulsory
- → plug types can be changed without needing to make a new purchase COST SAVINGS
- ightarrow simple and safe operation
- ightarrow operational status is easy to discern
- prevention of uncontrolled restarting of machines after power returns
- $\rightarrow$  the user's protection level is heightened

#### **Technical Data:**

Rated voltage: 230 V/50 Hz	Nominal Current: 16 A	Protection Class: max. IP 68	Conductor Cross-Section 1 mm2 to 2.5 mm2
Nominal Fault Current:	Ambient Temperature:		Norms and Standards:
10 or 30 mA	-25° to 40° C with a		- DIN VDE 0661
	daily mean value that		- DIN 40040 or
	does not exceed 35° C		DIN EN 60721

## Aluminum Energy Columns



#### ELSPRO Aluminum Energy Columns Series ALPEN - modular





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#### ELSPRO Aluminum Energy Columns Series ALPEN - modular

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The cover plate of each energy column is tightly secured with a rubber seal.

The feed cable enters the column through the base plate. This area houses the generously dimensioned energysupply compartment, which ensures the quick and uncomplicated connection of the feed cable after removal of the front panel.





The column profile and the base plate are tightly screwed together. The base plate is affixed with four M8 screws to the respective ground surface.

#### SPECIAL FEATURES:

- closed anodized and plastic-powder-coated aluminum profile with base and cover plates made of anodized and plastic-powder-coated aluminum
- EPDM seals between the individual column sections
- timeless and premium-quality appearance
- available in different heights and models
- individual modular configurations with the highest possible safety thanks to compartmentalization
- range of application
- protection guards are externally accessible and situated safely behind transparent hinged windows
- dimensions

- corrosion-resistant and weatherproof to ward against outside elements; long service life
- high protection class, up to max. IP 65; suitable for use in damp areas and outdoor sites
- the columns make a good impression in representative areas as well, such as reception or office spaces
- individual models custom-tailored to each client's needs; 4-sided configurations also possible
- Iow-voltage sockets, extra-low-voltage sockets, network sockets, air, intercom systems, switches, etc.
- → offices, reception areas, stand-alone solutions, access control, production areas, laboratories, etc.
- simple operation of the protection guards without opening the housing
- → Footprint: 250 x 180 mm Profile size: 200 x 120 mm Wall thickness: min. 2.5 mm

### Plugs with Earthing Contact and CEE Plug Connectors – Industrial Models –



### **CEE Industrial Connector Systems**

as per DIN VDE 0623 Part 1/EN 60309/IEC 60309



#### **SPECIAL FEATURES:**

#### **Housing and Inserts**

- breakproof and impact-resistant, highly resistant to wear and abrasion
- high resistance to cold and hot temperatures
- cadmium- and halogen-free
- very strong resistance to a large number of different chemicals

#### Contacts

all pins and connectors are nickel-plated

#### **Terminal Screws**

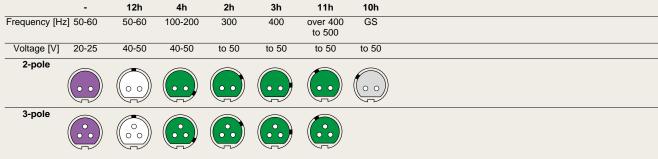
- easily accessible from one direction
- safeguarded against accidental removal when open (ready-to-connect)

- → long service life, even under demanding conditions cost savings
- → dimensionally stable and safe from -25° to +80°
- → low impact on the environment
- → safe during use, even under extreme working conditions
- → increased level of corrosion resistance, prevents pins and connectors from sticking
- → convenient handling during the connection process
- → time savings

							Time pos	ition of th	ne earthing	g contact	and color	r coding:
	4h	9h	6h	11h	7h	5h	12h	1h	10h	2h	3h	8h
	1 50 00	50.00	50.00	00	50.00	50.00	50.00		400.000	over 300		
Frequency [H:	z] 50-60	50-60	50-60	60	50-60	50-60	50-60	-	100-300	to 500	50-60	
Voltage [V]	57/100 to	120/208 to	200/346 to	250/400 to	277/480 to	347/600 to		over 50	over 50	over 50	250/440	
5-pol.	75/130	144/250	240/415	265/460	288/500	400/690					16+32 A	
3-pol.+N+≟												
Voltage [V]	100-130	200-250	380-415	440-460	480-500	600-690 iso	voltage according to lating transfo		over 50	over 50	380-440 only for 16+32 A	
<b>4-pol.</b> 3-pol. <b>+</b> ≟	•••	•••										
Voltage [V]	100-130	380-415	200-250		480-500	277 iso	voltage according to lating transfo					over 250 rect current
<b>3-pol.</b> 2-pol. <b>+</b> ≟	•••		•			•			•••	•		$\bigcirc$

View of the contact sockets as seen from the front side of the connector sockets. 63 A + 125 A plug connectors with pilot contact.

#### Position of auxiliary nose to earth nose for voltages up to 50 V and frequencies up to 500 Hz and color coding.:



View of the contact sockets as seen from the front side of the connector sockets.

**Industrial Connector Systems** 

Number of poles

3

5 16

16 4

16

2 h

S5012H

<u>> 50 V</u> 301–500 HZ

**Item Numbers** 

400 V

50-60 HZ

6 h

S3814

S3815

,500 V ~

50-60 HZ

7 h

S5014

>50 V ~

100–300 HZ

10 h

S50110H

110 V ~

50-60 HZ

4 h

S1113

S1114

230 V -

50-60 HZ

S2213

S2214

Noninar Cuterr Angele Plugs Connectors Surface-Mounted Sockets (tilted)













S1133 S1134	S2233 S2234	S3834 S3835	S5034	S50310H	S5032H	3 32 4 32 5 32	
S1163 S1164	S2263 S2264	S3864 S3865 S38X4 S38X4 S38X5	S5064 S50X4	S50610H	S5062H	3 63 4 63 5 63 3 125 4 125 5 125	
K1113 K1114	K2213 K2214	K3814 K3815	K5014	K50110H	K5012H	3 16 4 16 5 16	Co As
K1133 K1134	K2233 K2234	K3834 K3835	K5034	K50310H	K5032H	3 32 4 32 5 32	
K1163 K1164	K2263 K2264	K3864 K3865	K5064	K50610H	K5062H	3 63 4 63 5 63	- Contraction
		K38X4 K38X5	K50X4			3 125 4 125 5 125	
AD1113S AD1114S	AD2213S AD2214S	AD3814S AD3815S	AD5014S	AD50110HS	AD5012HS	3 16 4 16 5 16	150
AD1133S AD1134S	AD2233S AD2234S	AD3834S AD3835S	AD5034S	AD50310HS	AD5032HS	3 32 4 32 5 32	. 6.9
AD1163S AD1164S	AD2263S AD2264S	AD3864S AD3865S	AD5064S	AD50610HS	AD5062HS	3 63 4 63 5 63	
		AD38X4S	AD50X4S			3 125 4 125	

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AD38X5S

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5 125

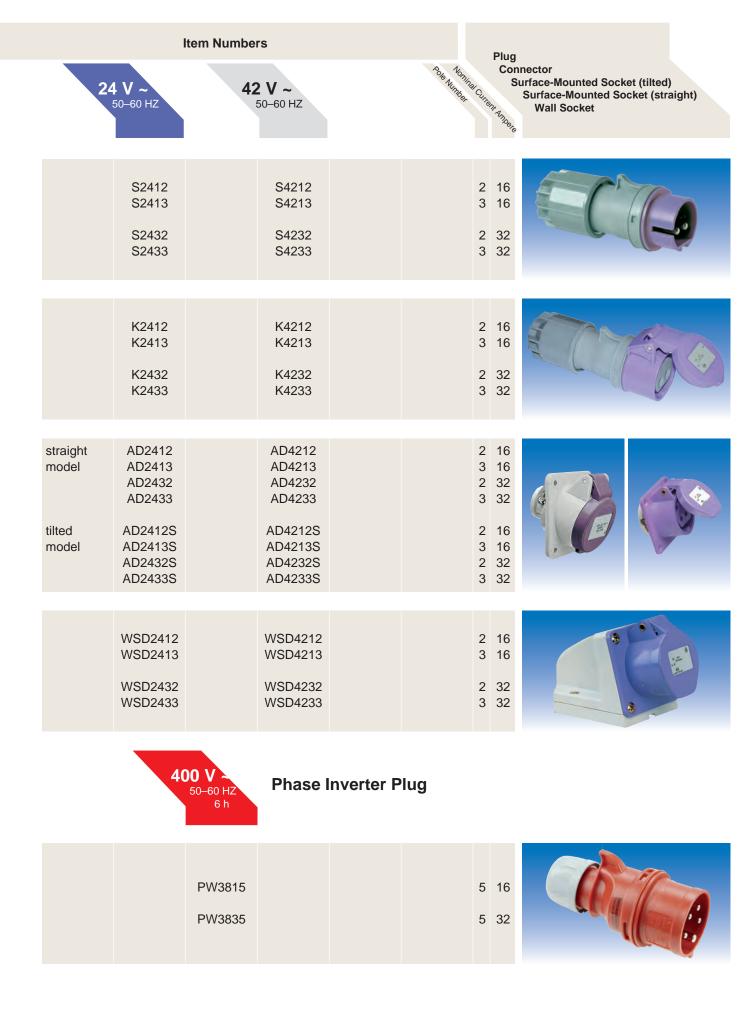


		ŀ	tem Number	s				Connector Systems
		<b>V ~ 400</b> 50–60 HZ			50 V ~ > 5 100-300 HZ 10 h	<b>0 V</b> ~ <b>1</b> 01-500 HZ 2 h	ALCUTER ATOBIE	Surface-Mounted Sockets (straight) Surface-Mounted Plug Connectors Wall Sockets
/	AD1113 AD1114 AD1133	AD2213 AD2214 AD2233	AD3814 AD3815	AD5014	AD50110H	AD5012H	3 16 4 16 5 16 3 32	1000
	AD1134	AD2233 AD2234	AD3834 AD3835	AD5034	AD50310H	AD5032H	4 32 5 32	
	AD1163 AD1164	AD2263 AD2264	AD3864 AD3865	AD5064			3 63 4 63 5 63	
			AD38X4 AD38X5	AD50X4			3 125 4 125 5 125	
	raight ersion	AGS2213 AGS2214	AGS3814 AGS3815	AGS5014			3 16 4 16 5 16	
		AGS2233 AGS2234	AGS3834 AGS3835	AGS5034			3 32 4 32 5 32	
	oping esign	ASS2263 ASS2264	ASS3864 ASS3865	ASS5064			3 63 4 63 5 63	
			ASS38X4 ASS38X5	ASS50X4			3 125 4 125 5 125	
	/SD1113S /SD1114S	WSD2213 WSD2214	WSD3814 WSD3815	WSD5014	WSD50110H	WSD5012H	3 16 4 16 5 16	
		WSD2233 WSD2234	WSD3834 WSD3835	WSD5034	WSD50310H	WSD5032H	3 32 4 32 5 32	
		WSD2263 WSD2264	WSD3864 WSD3865	WSD5064			3 63 4 63 5 63	
			WSD38X4 WSD38X5	WSD50X4			3 125 4 125 5 125	

- further models on request / subject to modification and errors -

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#### ELSPRO Solid Rubber Earthed Connector Systems Plugs and Connectors with Metric Screw Connection



MODEL:	Order No.	
Solid rubber plug with earthing contact 3 pol. / 16 A / 230 V / black-blue	SCH11/PG/BL/N	4,00
<ul> <li>complying with the standard DIN 49440/441</li> </ul>		
with metric screw connection		T
<ul> <li>impact-resistant</li> </ul>		
<ul> <li>IP54 - splashproof</li> </ul>		
<ul> <li>for a cable diameter 6 - 14 mm</li> </ul>		
<ul> <li>flexible connection cross-section 3G1,0 / 3G2,5 mm<sup>2</sup></li> </ul>		
<ul> <li>screwless quick locking system</li> </ul>		A Destruction of the second se
external strain relief		
Solid rubber connector with earthing contact 3 pol. / 16 A / 230 V	SCH21/K/PG/BL/N	
<ul> <li>complying with the standard DIN 49440/441</li> </ul>		
<ul> <li>with metric screw connection</li> </ul>		
<ul> <li>with self-closing hinged lid</li> </ul>		
<ul> <li>impact-resistant</li> </ul>		optional withLED
<ul> <li>IP54 - splashproof</li> </ul>		
• for a cable diameter 6 - 14 mm		
<ul> <li>flexible connection cross-section 3G1,0 / 3G2,5 mm<sup>2</sup></li> </ul>		
<ul> <li>screwless quick locking system</li> </ul>		
external strain relief		
<ul> <li>optional with integrated voltage indicator (green LED lamp) (see small picture)</li> </ul>	SCH21/K/PG/BL/LED	unlock contact carrier
Solid rubber tripple connector with earthing contact 3 pol. / 16 A / 230 V	- SCH31/P	
<ul> <li>complying with the standard DIN 49440/441</li> </ul>		
<ul> <li>with metric screw connection</li> </ul>		A COL
<ul> <li>with self-closing hinged lids</li> </ul>		
<ul> <li>with integrated voltage indicator (green LED lamp)</li> </ul>		
<ul> <li>impact-resistant</li> </ul>		
<ul> <li>IP44 - splashproof</li> </ul>		
<ul> <li>with separate connection compartment</li> </ul>		
<ul> <li>for a cable diameter 6-19 mm</li> </ul>		
<ul> <li>flexible connection cross-section 3G1,5 / 3G2,5 mm<sup>2</sup></li> </ul>		
<ul> <li>screwless, centric strain relief</li> </ul>		
<ul> <li>customized models: equipped with flexible INDUSTRIEFLEX® 07 HT cable</li> </ul>		
<ul> <li>with solid rubber earthed plug and 5 m INDUSTRIEFLEX<sup>®</sup> 07 HT 3G1,5 mm<sup>2</sup></li> </ul>	S5KD	AL IA
<ul> <li>with solid rubber earthed plug and 10 m INDUSTRIEFLEX<sup>®</sup> 07 HT 3G1,5 mm<sup>2</sup></li> </ul>	S10KD	
<ul> <li>with solid rubber earthed plug and 20 m INDUSTRIEFLEX<sup>®</sup> 07 HT 3G1,5 mm<sup>2</sup></li> </ul>	S20KD	
<ul> <li>other models on request / subject to modificat</li> </ul>		

06.21

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#### Industrial Plugs and Sockets with Earthing Contact

	2pol. + PE, 10/16 A, 250 V, as per DIN 49440 and 49441-2-AR1 (IEC 884) DIN VDI 2pol. + PE, 10/16 A, 250 V, SEV 1011	E 0620h, CEE7/VII	Order No.
	<ul><li>Built-in socket</li><li>with self-closing hinged lid</li></ul>	@▲�	SCH51P
	Wall-mounted socket (lower segment)		SCH61P
	Wall-mounted socket – no fig. – (SCH51P + SCH61P)	@▲�	SCH71P
0	Cable entry from top and bottom!		
	<ul> <li>Plug with earthing contact, water-pressure-tight</li> <li>with lock ring and cap</li> <li>material PC/ABS</li> <li>DIN 49 443-R2</li> <li>protection class IP66/68</li> </ul>	<b>▲</b> ∲	SCH11WDP
	<ul> <li>Socket with earthing contact, water-pressure-tight</li> <li>with cap</li> <li>material PC/ABS</li> <li>DIN 49 442-B</li> <li>protection class IP66/68</li> </ul>	۵	SCH21WDP
	<ul> <li>Built-in socket, water-pressure-tight</li> <li>with self-closing hinged lid</li> <li>material PC/ABS</li> <li>DIN 49 442</li> <li>protection class IP66/68</li> </ul>	۵ 🖗	SCH51WDP

#### Industrial connection boxes



- subject to modification and errors -

# **Special Cable Solutions**







Heavy-duty rubber special hose lines that are waterproof and heat-resistant and adhere to:

## EN 50525-2-21 DIN VDE 0285-525-2-21 H07RN-F H07RN8-F H07BN4-F

# TYPICAL FIELDS OF APPLICATION:

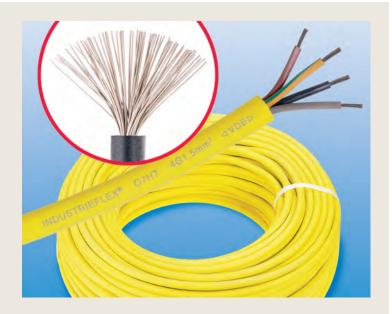
- construction and assembly sites
- steel and automobile industries
- heavy welding manufacturers
- chemical industry / Ex manufacturers (VDE 0165)
- municipal utilities, waterworks, and sewage treatment plants
- power plants and nuclear power stations

### For use as per HD 516 / DIN VDE 0298

- in both dry and damp spaces
- for continuous implementation in outdoor areas
- in potentially explosive atmospheres (as per VDE 0165)
- in commercial and agricultural settings

# **SPECIAL FEATURES:**

- cross-linked and compressed external sheathing material
- "closed" external sheath surface
- modified external sheath mixture
- silicon-free sheath and lead insulation
- tin-plated copper wires / inner leads
- depending on the cross-section, ultra-fine wires of either copper class 6 or copper class 5 (for details, see page 8.2)



- in engines or machines at construction sites
- in unpolluted water up to 10 meters deep and water temperature of 40° C in accordance with AD8 (e.g., for diving pumps); also water-resistant down to 50 meters in slightly polluted wastewater of industrial and domestic origin
- → also designed to withstand high mechanical strain; durability is enhanced thanks to extremely tear-resistant qualities, which amounts to COST SAVINGS
- absorption of oils and chemicals is next to impossible
- → resistant to UV, ozone, hydrolysis, and inclement weather; also flame-resistant, immediately self-extinguishing, infusible
- → extremely flexible, even at low temperatures
- $\rightarrow$  easy implementation in paint-related contexts (e.g., auto motive industry); no coating effect or aggressive deposits (e.g., in electronics / circuit boards)
- → no adverse interaction between copper and lead insulation material; no corrosion and no scaling of the connection points
- → maximal flexibility for easy handling, even under challenging conditions, lower lead rupture, and therefore COST SAVINGS thanks to HIGH DURABILITY

- other models on request / subject to modification and errors -

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Cross-Section	Copper Class	Average Outside Diameter	Order No.
in mm <sup>2</sup>		in mm	
2 x 1.00	6	8.2	SL07HT 210
3 G 1.00	6	9.1	SL07HT 310
			SL07HT 410
	6	9.6	
5G 1.00	5	11.6	SL07HT 510
2 x 1.50	6	9.1	SL07HT 215
3G 1.50	6	9.8	SL07HT 315
4 G 1.50	6	11.3	SL07HT 415
5G 1.50	5	11.9	SL07HT 515
7 G 1.50	5	15.7	SL07HT 715
12 G 1.50	5	18.5	SL07HT 1215
2 x 2.50	5	10.9	SL07HT 225
3 G 2.50	5	11.6	SL07HT 325
4 G 2.50	5	12.7	SL07HT 425
			SL07HT 525
5 G 2.50	5	13.9	
2G 4.00	5	12.9	SL07HT 240
5G 4.00	5	16.9	SL07HT 540
2 x 6.00	5	15.1	SL07HT 260
5G 6.00	5	18.9	SL07HT 560
5 G 10.00	5	25.5	SL07HT 5100
5 G 16.00	5	28.9	SL07HT 5160

- other models on request; if desired also with imprinting (e.g., company name)

- presentation: drum or 100 m rings

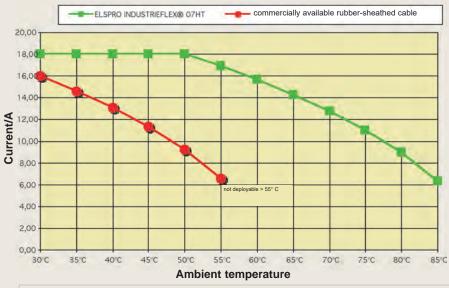
- inside wiring up to 5 leads, color-coded

> 5-lead numbering

# **TECHNICAL DATA:**

Nominal current:	450 V / 750 V
Conductor temperature:	up to +90°C
Ambient temperature:	up to +85°C
	up to -25°C (flexible) as per HD 22.4,
	also deployable down to -35°C
Test voltage:	2,500 V
Flame resistance:	DIN EN 60332-1-2
Tensile load:	max. 15 N/mm <sup>2</sup> conductor cross-section
Cross-sections:	up to max. 5 x 16 mm² possible

#### Current load of a 1.5 mm<sup>2</sup> cable in connection to temperature



The adjacent chart presents the values for standard cables subjected to ambient temperatures of up to 55° C (H07RN-F) as compared to INDUSTRIEFLEX<sup>®</sup> 07 HT cables.

#### PLEASE NOTE:

The values displayed do not apply to feed lines attached to house or hand units. In order to avoid accidents caused by too high of temperatures along the external sheath, the latter may only be operated with a current load capacity in accordance with VDE 0298, chart 11, columns 3 and 4, regardless of the respective ambient temperature.

Please take the conditions of your specific operating situation into account!

In order to ensure that customers receive consistently high quality when using cables under the name INDUSTRIEFLEX<sup>®</sup>, protection is provided through the German Patent Office under the number 2043633.

# Models:

- any desired length
- all customary connection systems
- partially customized solutions also possible
- multipole connector systems in all sizes
- other cable types on request
- K2 marking



# SPECIAL FEATURES:

- ULTRA-FINE copper (see page 8.2)
- high-quality plug connectors with earthing contact displaying VDE, hammer, and drip symbols
- CEE plug connectors made of polyamide 6, with nickel-plated contacts
- made and tested by specialized professionals
- considerably lower chance of conductor breakage; easy handling even under difficult conditions
- → use in indoor and outdoor areas, such as in the open air, in damp rooms, and at construction and assembly sites
- → long service life even under extreme conditions, COST SAVINGS
- → cables ready to use immediately

Technical data and other specifics pertaining to the INDUSTRIEFLEX<sup>®</sup> HT cable can be found on pages 8.1 + 8.2

Plug	Length	Connector	Order No.	Version	Order No.
earthing contact	5 m 10 m 20 m	earthing contact	S5K S10K S20K	with triple connector	S5KD S10KD S20KD
CEE 230V/3pol. 16A	5 m 10 m 20 m	CEE 230V/3pol. 16A	CS5K2213 CS10K2213 CS20K2213		
CEE 400V/5pol. 16A	5 m 10 m 20 m	CEE 400V/5pol. 16A	CS5K1 CS10K1 CS20K1	with phase inverter plu	ig on request
32A	5 m 10 m 20 m	32A	CS5K3 CS10K3 CS20K3	with phase inverter plu	ıg on request
63A	5 m 10 m 20 m	63A	CS5K6 CS10K6 CS20K6		

- other models on request / subject to modification and errors -

Selection of our cables always adheres to the VDE regulations valid at the present time.

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For portable devices, electric tools, handheld units, etc.

# **RANGE OF APPLICATION:**

- construction and assembly sites
- industry, trade, and agriculture
- special rubber cable
- signal color yellow
- tin-plated inside wiring
- internal marker threads
- type code printed on external sheath



# MODEL:

- with molded contour plug and 2-lead cable
- with molded earthed plug and 3-lead cable
- sheath has been removed from the end, while leads have been insulated and fitted with end ferrules

# **SPECIAL FEATURES:**

- ergonomic and anti-slip plug form
- ready to use; featuring extended protective earthing conductor (3-lead)
- ultra-fine copper wire (highly flexible)
- → minimized installation time COST SAVINGS
- $\rightarrow$   $% \left( a_{1}^{2}\right) =0$  easy handling, even under rough conditions

	.2			
Length	Cross-Section	Outside ∅ ca.	Plug Type	Order No.
2 m 3 m 5 m 10 m	2 x 1.0 mm <sup>2</sup>	8.2 mm	contour plug	210 M2 SL07 210 M3 SL07 210 M5 SL07 210 M10 SL07
2 m 3 m 5 m 10 m	2 x 1.5 mm²	9.1 mm	contour plug	215 M2 SL07 215 M3 SL07 215 M5 SL07 215 M10 SL07
2 m 3 m 5 m 10 m	3 G 1.5 mm <sup>2</sup>	9.8 mm	earthed plug	315 M2 SL07 315 M3 SL07 315 M5 SL07 315 M10 SL07

- other models on request / subject to modification and errors -

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# For hand-operated electrical equipment

- special rubber cable
- signal color yellow
- tin-plated inside wiring
- internal marker threads

**RANGE OF APPLICATION:** - permissible at construction and

type code printed on external sheath



\* with small outside diameter \*

# MODEL:

- with molded contour plug and 2-lead cable

assembly sites for up to 4 m in length, provided that no other supplementary

DIN/VDE regulations apply (e.g., 0740)

- with molded earthed plug and 3-lead cable
- sheath has been removed from the end, while leads have been insulated and fitted with end ferrules

# SPECIAL FEATURES:

- small outside diameter
- ergonomic and anti-slip plug form
- ready to use; featuring extended protective earthing conductor (3-lead)
- ultra-fine copper wire (highly flexible)
- → effortless installation, even in the case of small device entry
- easy plugging and unplugging
- → minimized installation time COST SAVINGS
- → easy handling, even under rough conditions

Technical data and other specifics pertaining to the INDUSTRIEFLEX® 05 HT cable can be found on page 8.8

Length	Cross-Section	Exterior $\emptyset$ ca.	Plug Type	Order No.
4 m	2 x 1.0 mm <sup>2</sup>	6.8 mm	contour plug	210M4IF
4 m	3 G 1.0 mm <sup>2</sup>	7.2 mm	earthed plug	310M4IF

# **Device Connecting Cables with Your Company Name**

#### INDUSTRIEFLEX® 07 HT and INDUSTRIEFLEX® 05 HT

- special rubber cable
- signal color yellow
- tin-plated inside wiring
- internal marker threads
- type code printed on external sheath



# MODEL:

- with molded contour plug and 2-lead cable
- with molded earthed plug and 3-lead cable
- sheath has been removed from the end,

while leads have been insulated and fitted with end ferrules

## **SPECIAL FEATURES:**

- with imprinting using state-of-the art technology, e.g., company name, department, telephone and fax numbers
- special ink
- ultra-fine copper wire (highly flexible)
- delivery available at a minimum purchase of 20 cables per model
- clear recognition of company property; assignment of devices according to department; advertising
- → imprint is smudgeproof, even when in contact with chemicals (oils, solvents, gasoline, etc.)
- → all handheld units can be marked
- → easy handling, even under rough conditions

INDUSTRIEFLEX® 07 HT	Technical data and further special features on pages 8.1 and 8.2
----------------------	--

Length	Cross-Section	Outside $\varnothing$ ca.	Plug Type	Order No.
3 m	$2 \times 10 \text{ mm}^2$	9.0 mm	contour plug	210 M3 SL07/A
5 m	2 x 1.0 mm	8.2 mm	contour plug	210 M5 SL07/A
3 m	2 x 1.5 mm <sup>2</sup>	9.1 mm	contour plug	215 M3 SL07/A
5 m	2 X 1.5 mm	9.1 11111	contour plug	215 M5 SL07/A
3 m	3 G 1.5 mm <sup>2</sup>	9.8 mm	earthed plug	315 M3 SL07/A
5 m	5 6 1.5 mm	9.0 11111	earmed plug	315 M5 SL07/A

**INDUSTRIEFLEX® 05 HT** 

Technical data and further special features on pages 8.8

4 m	2 x 1.0 mm <sup>2</sup>	6.8 mm	contour plug	210M4IF/A
4 m	3 G 1.0 mm <sup>2</sup>	7.2 mm	earthed plug	310M4IF/A

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Special rubber hose line with internal marker threads and type code printed on external sheath; color: yellow

Regulations:	DIN/VDE 0282-1/-2/-4/02	293-308/0295/0298-3
Nominal voltage:	$U_{o}/U = 300/500 \text{ V}$	SL05 HT
Alternating current test voltage:	$U_{o}/U = 2000 V$	SL05 HT

Operating temperature:

Combustion behavior and self-extinguishment:

Conductors: Bending radii (in open wiring contexts):

Tensile load:

### **SPECIAL FEATURES:**

- cross-linked and compressed external sheathing material
- "closed" external sheath surface
- modified external sheath mixture
- silicon-free sheath and lead insulation
- tin-plated inside wiring

max. 60°C -40°C (retains full functionality) -25°C, working with cable possible DIN VDE 0482-332-1/-2 SL05 HT

copper, flexible, tin-plated  $3d \leq 8mm$  outside diameter  $4d > 8mm \le 12mm$ , 5d > 12mmmax. 15 N/mm<sup>2</sup>

- $\rightarrow$  also designed to withstand high mechanical strain, enormously TEAR-RESISTANT, long service life
- → absorption of oils and chemicals is next to impossible; extremely high durability
- → resistant to UV, ozone, hydrolysis, and inclement weather; also flame-resistant, immediately self-extinguishing, infusible
- → extremely flexible, even at low temperatures
- → easy implementation in paint-related contexts (e.g., automotive industry); no coating effect or aggressive deposits (e.g., in electronics / circuit boards)
- → no adverse interaction between copper and lead insulation material
  - → no corrosion and no scaling of the connection points

# **TYPICAL FIELDS OF APPLICATION:**

- construction and assembly sites
- steel and automobile industries
- municipal utilities, waterworks, and sewage treatment plants
- power plants and nuclear power stations

In order to ensure that customers receive consistently high quality when using cables under the name INDUSTRIEFLEX®, protection is provided through the German Patent Office under the number 2043633.

<sup>-</sup> other models on request / subject to modification and errors -

# ELSPRO-FLEX<sup>®</sup> G 05 (from 2 x 0.75 - 5 G 1.00 mm<sup>2</sup>) ELSPRO-FLEX<sup>®</sup> G 07 (from 2 x 1.50 - 5 G16.00 mm<sup>2</sup>)

# Special hose line with modified polyurethane sheath and EPR lead insulation

- cable certified by VDE and HAR
- tin-plated CU conductor
- signal color yellow
- type code printed on external sheath



## SPECIAL FEATURES:

•	ULTRA-FINE copper wire (class 6), highly flexible	<b>→</b>	significantly lower chance of "lead rupture"; easy hand- ling, even under rough conditions	
•	halogen-free	$\rightarrow$	no harmful halogens released (e.g., chlorine/hydroch- loric acid)	
•	silicon-free sheath and lead insulation	<b>→</b>	easy implementation in paint-related contexts; no coa- ting effect or aggressive deposits	
•	withstands high mechanical loads	<b>→</b>	long service life, fewer production losses COST SAVINGS	
•	resistant to grease, organic and inorganic oils (as per VDE 0472/803A)	<b>→</b>	next to no "swelling" of the cable	
•	outstanding abrasion resistance	$\rightarrow$	implementable under high shear and abrasion loads	
•	excellent resistance to tear and high notch tensile strength	<b>→</b>	any damage to the sheath remains "localized"	
•	high radiation resistance	→	can be used in various contexts, e.g., with radiation equipment, fusion research facilities, particle accelerators, etc.	
	Outside Bismaten in mm	T	One of Continu	

Outside Diam	eter in mm	Cross-Section	Orden Ne
Mean Value	Max.	in mm <sup>2</sup>	Order No.
7.2	8.1	3 G 0.75	G05 3075
7.8	8.8	4 G 0.75	G05 4075
8.8	9.8	5 G 0.75	G05 5075
7.1	8.0	2 x 1.00	G05 210
7.5	8.5	3 G 1.00	G05 310
7.1	9.3	4 G 1.00	G05 410
8.7	9.8	2 x 1.50	G07 215
10.3	11.6	2 x 2.50	G07 225*
9.2	10.4	3 G 1.50	G07 315
11.0	12.4	3 G 2.50	G07 325*
10.2	11.6	4 G 1.50	G07 415
11.1	12.7	5 G 1.50	G07 515*
13.7	15.3	5 G 2.50	G07 525*
16.0	17.9	5 G 4.00	G07 540*
17.9	20.0	5 G 6.00	G07 560*
13.0		7 G 1.50	G07 715*

Inside wiring up to 5 leads, color-coded > 5-lead numbering

\* Model with copper class 5

- other models on request / subject to modification and errors -

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REGULATIONS:	DIN VDE 0282 (Part 10	)	
EXTERIOR SHEATH:	<ul><li>modified polyurethane</li><li>color: yellow</li></ul>	9	
VOLTAGES:	Nominal voltage: Nominal voltage: Operating voltage: Operating voltage: Alternating current test	$U_o/U = 300/500V$ $U_o/U = 450/750V$ $U_o/U = 330/570V$ $U_o/U = 500/865V$ voltage: <b>3000V</b>	G05 G07 G05 G07
TEMPERATURES:	during operation (condu in the case of a short ci lowest working tempera lowest working tempera	rcuit iture, flexible	+ 90° C + 200° C - 35° C - 45° C
BENDING RADII:	d ≤ 8 mm = 2d d 8-12 mm = 3d d > 12 mm = 4d		
INSIDE WIRING:		, ductor (class 6 / DIN/VD n in accordance with DI	,

Skin contact should be avoided when the cable is used under high-temperature conditions. For use in areas where • hot components are touched

- "heavy" sweating occurs, beats of sweat appear
- thermal radiation is present
  there is exposure to open fire
  - $(e.g., \, steel \, production \, and \, processing)$

please use our INDUSTRIEFLEX® cables (catalog pages 8.1-8.8) or ELSPRO-FLEX® THERM-MF cables (catalog pages 8.17) instead!

# **MODELS:**

- all customary connection systems
- partially customized solutions also possible
- any desired length
- K2 marking



# SPECIAL FEATURES:

- *ULTRA-FINE* copper wire (highly flexible)
- high-quality plug connectors with earthing contact displaying VDE, hammer, and drip symbols
- CEE plug connectors made of polyamide 6, with nickel-plated contacts
- made and tested by specialized professionals
- largely UV- and ozone-resistant

- → significantly lower chance of "lead rupture"; easy handling, even under rough conditions
- → use in indoor and outdoor areas, such as in the open air, in damp rooms, and at construction and assembly sites
- → long service life, even under extreme conditions, COST SAVINGS
- → cables ready to use immediately
- → longer service life in outdoor areas

Technical data and other specifics pertaining to the ELSPRO-FLEX®	
G cable can be found on pages 8.9 / 8.10	

Plug	Length	Connector	Order No.	Version	Order No.
earthed plug	5 m 10 m 20 m	earthed plug	S5KG S10KG S20KG	with triple connector with earthing contact	S5KDG S10KDG S20KDG
CEE 230V/3pol 16A	5 m 10 m 20 m	CEE 230V/3pol 16A	CS5K2213G CS10K2213G CS20K2213G		
CEE 400V/5pol 16A	5 m 10 m 20 m	CEE 400V/5pol 16A	CS5K1G CS10K1G CS20K1G	with phase inverte on request	er plug
32A	5 m 10 m 20 m	32A	CS5K3G CS10K3G CS20K3G	with phase inverter plug on request	

- other models on request / subject to modification and errors -

Selection of our cables always adheres to the VDE regulations valid at the present time.

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Special hose line with modified polyurethane sheath and EPR lead insulation

# **RANGE OF APPLICATION:**

- construction and assembly sites
- industry, trade, and agriculture
- cable certified by VDE and HAR
- tin-plated CU conductor
- signal color yellow
- type code printed on external sheath

# MODEL:

- with molded contour plug and 2-lead cable
- with molded earthed plug and 3-lead cable
- sheath has been removed from the end, while leads have been insulated and fitted with end ferrules

# **SPECIAL FEATURES:**

- ULTRA-FINE copper (highly flexible)
- ergonomic and anti-slip plug form
- ready to use; featuring extended protective earthing conductor (3-lead)
- largely UV- and ozone-resistant
- → significantly lower chance of "lead rupture"; easy handling, even under rough conditions
- → easy plugging and unplugging
- → COST SAVINGS THANKS TO MINIMIZED INSTALLATION TIME
- → longer service life in outdoor areas

Technical data and other specifics pertaining to the ELSPRO-FLEX<sup>®</sup> G cable can be found on pages 8.9 + 8.10

Length	Cross-Section	Outside $\emptyset$ ca.	Plug Type	Order No.
3 m 5 m	2 x 1.0 mm <sup>2</sup> 2 x 1.0 mm <sup>2</sup>	7.1 mm	contour plug	210 M3 G05 210 M5 G05
3 m 5 m	2 x 1.5 mm <sup>2</sup> 2 x 1.5 mm <sup>2</sup>	8.7 mm	contour plug	215 M3 G07 215 M5 G07
3 m 5 m	3 G 1.5 mm <sup>2</sup> 3 G 1.5 mm <sup>2</sup>	9.2 mm	earthed plug	315 M3 G07 315 M5 G07

- other models on request / subject to modification and errors -



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# **ELSPRO<sup>®</sup> THERM-HBFL**

- color of exterior sheath: orange or pink (depending on cross section)
- withstands high mechanical loads, features abrasion resistance
- flexible
- oil- and acid-resistant (oil resistance as per VDE 0472 T 803)
- silicone- and halogen-free
- high resistance to ageing (even when subject to continuous use)
- will not become brittle or hardened prematurely
- infusible

## SPECIAL FEATURES:

- high mechanical strength
- abrasion- and tear-resistant
- strong resistance to chemicals
- halogen-free
- enhanced flexibility
- high resistance to ageing

- → in most fields of application, service life is extended significantly; in most cases no extra protective measures are needed - COST SAVINGS
- → low degree of exterior sheath damage
- → implementation even under challenging conditions: oils, grease, lyes, diverse chemical substances - in certain cases a trial run may be advisable -
- → additional safety in the case of fire
- → easy handling
- will not become brittle or hardened prematurely; extended service life (even under continuous use) COST SAVINGS

- other models on request / subject to modification and errors -

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# **ELSPRO® THERM-HBFL**

Cross-Section	Approx Outoido	Annray Maight	
in mm <sup>2</sup>	Approx. Outside Diameter in mm	Approx. Weight in kg/km	Order No.
2 x 0.75	7.0	70.0	HBFL2075E
3 G 0.75	7.5	80.0	HBFL3075E
4 G 0.75	8.5	100.0	HBFL4075E
5 G 0.75	9.0	130.0	HBFL5075E
7 G 0.75	10.5	160.0	HBFL7075E
12 G 0.75	on request	on request	HBFL12075E
3 G 1.00	8.0	100.0	HBFL310E
2 x 1.50	8.0	90.0	HBFL215E
3 G 1.50	9.0	130.0	HBFL315E
4 G 1.50	10.0	150.0	HBFL415E
5 G 1.50	11.0	190.0	HBFL515E
7 G 1.50	13.0	240.0	HBFL715E
12 G 1.50	17.0	430.0	HBFL1215E
25 G 1.50	24.0	770.0	HBFL2515E
3 G 2.50	11.0	190.0	HBFL325E
4 G 2.50	12.0	230.0	HBFL425E
5 G 2.50	13.0	290.0	HBFL525E
5 G 4.00	on request	on request	HBFL540E
5 G 6.00	17.0	530.0	HBFL560E
5 G 16.00	25.5	1,300.0	HBFL5160E

Presentation: 100 m rings or drum; delivery by arrangement Inside wiring up to 5 leads, color-coded

> 5-lead numbering

# **TECHNICAL DATA:**

Litz wire:	fine, tin-plated copper VDE 0295 class 5, IEC 60228 class 5, HD 383, lead insulation made of cross-linked polymer compound (HI 1)
Bending radius:	$\geq$ 4d (fixed installation)
	$\geq$ 5d (flexible use) DIN VDE 0298 / T3
Temperature range:	-25°C to +135°C, 1-2 hrs.: +190°C, 2-3 min.: up to +600°C
Nominal voltage:	Uº / U / U <sup>max</sup> = 300 / 500 / 550 V
Test voltage:	2,000 V AC
External sheath:	cross-linked polymer compound (VDE 0207/HM 1),
	oil-resistant (VDE 0472 T 803)
Halogen-free:	EN 50267-2-1 / EN 60684-2
Non-corrosive:	EN 50267-2-2
Ecologically sound:	EN 50305-9.2
Flame-retardant and	EN 60332-2-1
self-extinguishing:	

- other models on request / subject to modification and errors -

# **ELSPRO-FLEX® THERM-MF**

The ELSPRO-FLEX<sup>®</sup> THERM-MF cable is excellently suited for all thermal areas within industrial contexts, where conventional silicone cables cannot be used (or only conditionally) due to their inability to handle high mechanical loads.

## SPECIAL FEATURES:

- high mechanical strength
- abrasion- and tear-resistant
- strong resistance to chemicals
- high flash point
- halogen-free
- enhanced flexibility

- in most fields of application, service life is extended significantly; in most cases no extra protective measures are needed - COST SAVINGS
- → low degree of exterior sheath damage
- implementation even under challenging conditions: oils, grease, lyes, diverse chemical substances - in certain cases a trial run may be advisable -
- → in the case of fire, the charred exterior sheath provides an added insulating effect (safety aspect)
- → additional safety in the case of fire
- easy handling

# TECHNICAL DATA:

Litz wire:	fine, tin-plated copper wire VDE 0295 class 5/CEI20-29C5 lead insulation EI 2 VDE 0207 T20 (notch-resistant)
Bending radius under dynamic use:	15 d
Temperature range:	– 50°C to at least +180°C, even higher for short periods
Nominal voltage:	450/750 V
Test voltage:	2,500 V AC
External sheath:	mechanically resistant and notch-resistant special black silicone mixture 2GM/VDE 0207 T21
Halogen-free:	IEC 754-1 and VDE 0472 T813/IEC 754-2
Breakdown voltage:	20 KV/mm

- other models on request / subject to modification and errors -

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Cross-Section	Outside Dia	meter in mm	Order No.
in mm <sup>2</sup>	Mean Value	+/-	
2 x 0.75	6.4	0.2	MF2075
3 G 0.75	6.9	0.2	MF3075
4 G 0.75	7.6	0.2	MF4075
5 G 0.75	8.5	0.2	MF5075
7 G 0.75	9.2	0.2	MF7075
3 G 1.00	7.1	0.2	MF310
2 x 1.50	8.0	0.2	MF215
3 G 1.50	8.4	0.2	MF315
4 G 1.50	9.5	0.2	MF415
5 G 1.50	10.4	0.2	MF515
7 G 1.50	11.3	0.3	MF715
12 G 1.50	14.0	0.3	MF1215
16 G 1.50	17.1	0.4	MF1615
25 G 1.50	19.9	0.4	MF2515
3 G 2.50	9.8	0.2	MF325
4 G 2.50	11.1	0.3	MF425
5 G 2.50	12.4	0.3	MF525
5 G 4.00	14.0	0.3	MF540
5 G 6.00	16.6	0.4	MF560

Inside wiring up to 5 leads, color-coded > 5-lead numbering

The designation MF stands for heightened mechanical strength and stronger tear resistance.

Presentation: 100 m rings or drum

- other models on request / subject to modification and errors -

#### FIELDS OF APPLICATION:

- crane and conveyor systems
- elevators and pendant control stations
- high-bay warehouse and pit construction
- indoors and outdoors

#### CONDUCTOR:

- bare ultra-fine copper litz wire

#### LEAD MARKING:

- single-color and consecutive numbering
- with green/yellow protective earthing conductor

#### OUTER SHEATH:

- special plastic
- cold-resistant, weatherproof, notch ductile, abrasion-resistant

#### SHEATH COLOR:

- signal colour yellow (or black on request)

# **TEMPERATURE RANGE:**

- from -30°C to +70°C

#### **BENDING RADIUS:**

- with alternate bending 12 x D

#### PACKAGING:

- ring ware in any desired length (full meters only)
- longer lengths on drums

#### **BESONDERHEITEN:**

- 2 galvanized, plastic-coated steel cords are laterally
- 140 kp breaking load per cord

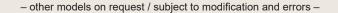
- → no need to fasten separate cords -TIME SAVINGS
- → a considerably higher tensile load and almost no axial distortions prolong service life -COST SAVINGS

TEST VOLTAGE:

NOMINAL VOLTAGE: Uo/U 300/500 volt

3000 volt

Cross-Section	Outside $\varnothing$ (with bearer organs) ca.	Order No.
12 x 1.00 mm <sup>2</sup>	15.0 (27.0) mm	SLSD1210
18 x 1.00 mm <sup>2</sup>	17.0 (32.0) mm	SLSD1810
25 x 1.00 mm <sup>2</sup>	21.0 (36.0) mm	SLSD2510
8 x 1.50 mm <sup>2</sup>	15.0 (27.0) mm	SLSD0815
12 x 1.50 mm <sup>2</sup>	16.5 (31.5) mm	SLSD1215
14 x 1.50 mm²	17.6 (33.8) mm	SLSD1415
20 x 1.50 mm <sup>2</sup>	21.0 (36.0) mm	SLSD2015
25 x 1.50 mm <sup>2</sup>	23.1 (38.3) mm	SLSD2515



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05.23

# ELSPRO-FLEX<sup>®</sup> WL 05 (from 2 x 0.75 - 5 G 1.00 mm<sup>2</sup>) ELSPRO-FLEX<sup>®</sup> WL 07 (from 2 x 1.5 - 7 G 2.5 mm<sup>2</sup>) SPIRAL CABLE

## FIELDS OF APPLICATION:

- tambour doors, hydraulic ramps, electrical tools, portable equipment, etc.
- indoors and outdoors

# Special hose line with modified polyurethane sheath

- signal color orange
- type code printed on external sheath



# NOMINAL VOLTAGE:

- − WL 05 U∘/U = 300/500 V
- − WL 07 U∘/U = 450/750 V

# SPECIAL FEATURES:

- custom-tailored to your needs starting at just 3 cables
- block lengths, extended lengths, and stretched ends can be adapted individually
- extremely high restoring force thanks to state-of-the-art winding technology
- sheath withstands high mechanical loads and is notch ductile and abrasion-resistant
- resistant to grease, organic and inorganic oils

# **OPERATING VOLTAGE:**

- WL 05 U∘/U = 330/570 V
- WL 07 U $_{\circ}$ /U = 500/865 V

**TEMPERATURE RANGE:** 

- flexible -30°C / +90°C

(conductor temperature)

- $\rightarrow$   $\,$  no need to store large amounts of material
- → optimized use during each application
- → long-term restorative effect
- → long service life, fewer production losses COST SAVINGS
- $\rightarrow$  next to no "swelling" of the cable

# SEVERAL EXAMPLES: (with both ends straight, each 20 cm in length)

Cross-Section	Block Length	Extended Length	Order No.
	80 cm	320 cm	WL08210
2 x 1.0 mm <sup>2</sup>	120 cm	480 cm	WL12210
	260 cm	1040 cm	WL26210
	80 cm	320 cm	WL08215
2 x 1.5 mm <sup>2</sup>	120 cm	480 cm	WL12215
	260 cm	1040 cm	WL26215
	80 cm	320 cm	WL08315
3 G 1.5 mm <sup>2</sup>	120 cm	480 cm	WL12315
	260 cm	1040 cm	WL26315
	80 cm	320 cm	WL08510
5 G 1.0 mm <sup>2</sup>	120 cm	480 cm	WL12510
	260 cm	1040 cm	WL26510
	80 cm	320 cm	WL08515
5 G 1.5 mm <sup>2</sup>	120 cm	480 cm	WL12515
	260 cm	1040 cm	WL26515

- other models on request / subject to modification and errors -

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This equipotential bonding cable has been developed to ensure a safe connection under inclement conditions.

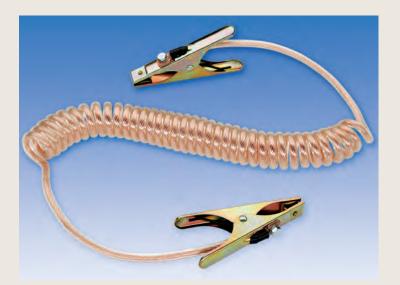
The equipotential bonding cables are available as customized models and also offered as models ready for self-customization.

# MODELS:

- ground clamp 200 A, with strong string
- cable lug for M8 screw

# **TECHNICAL DATA:**

- operating voltage: 1,000 V
- alternating current test voltage: 3,500 V
- cadmium- and CFC-free
- conductivity resistance as per DIN VDE 0295, IEC 60228



Customized cables (other models available on request):

Cross-Section	Max. Extended Length*	Cable Configuration Beginning End		Order No.
4.4.0.0 mm²	4.0 m	earthing pliers cable lug cable lug	earthing pliers earthing pliers cable lug	WLP30EE6 WLP30EK6 WLP30KK6
1 x 6.0 mm <sup>2</sup>	5.0 m	earthing pliers cable lug cable lug	earthing pliers earthing pliers cable lug	WLP50EE6 WLP50EK6 WLP50KK6

Cables with straight ends for self-customization (other models available on request):

Cross-Section	Max. Extended	Cable Conf	Order No.	
	Length*	Beginning	End	
1 x 6.0 mm²	4.0 m 5.0 m			WLP30/6 WLP50/6
1 x 16.0 mm <sup>2</sup>	4.0 m 6.0 m			WLP30/16 WLP60/16/400
1 x 25.0 mm <sup>2</sup>	3.0 m 5,0 m			WLP30/25 WLP50/25

\* the predefined maximum length should not be exceeded

# **SPECIAL FEATURES:**

- strand structure: ultra-fine class 6
- transparent exterior sheath made of polyether polyurethane
- resistant to oil and seawater; largely resistant to acid, lye, and solvents
- halogen-free
- high restoring force
- temperature range: -40°C to 80°C

- → considerably lower chance of conductor breakage
- → unbreakable and impact-resistant, leading to a longer service life, COST SAVINGS
- $\rightarrow$  next to no "swelling" of the cable
- no harmful halogens released (e.g., chlorine/ hydrochloric acid)
- → long-term restorative effect
- broad temperature range for various application areas

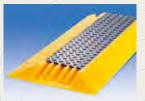
- other models on request / subject to modification and errors -

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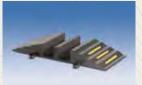
# Cable and Hose Bridge Systems Lightening Protection Bridges Cable Covers





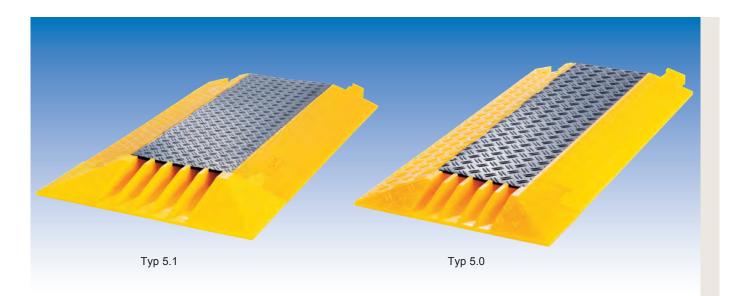








# Types 5.1 and 5.0



# ELSPRO cable bridge systems

lend order and safety to temporary cable routing situations. They provide optimal protection against outside damage at cable crossings and prevent accidents. Systems engineering refined down to the last detail has been proven through many years of practical experience.

### SPECIAL FEATURES:

- easy assembly thanks to modular connection system
- easily extendible and upgradable
- can be extended endlessly
- good fit on uneven ground
- slip- and abrasion-resistant
- temperature- and weatherproof

# Material:

- cast, modified polyurethane elastomer

### Suitable for:

 electrical, gas, water, compressed-air, and hydraulic cables

### Areas of Application:

- streets, construction sites, trade fairs
- airports, harbors, industrial sites
- amusement parks, traveling shows
- military, disaster relief
- film, television, radio
- sports fields or arenas

- other models on request / subject to modification and errors -

06.18

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# ELSPRO Cable Bridges for Temporary Mobile Energy Supply

# **Type 5.1**



# "Canale Grande"

Featuring 5 cable channels for lines with an outside diameter of up to 50 mm, Type 5.1 has plenty of capacity for large-scale projects that need temporary energy supply at professional standards.

- diverse range of application areas
- especially quick and simple assembly
- Stolperfallen werden entschärft

# **Technical Data:**

- 5 passage channels, 50 x 50 mm each
- material: hot-cast polyurethane, subsequently annealed, temperature-resistant up to 80°C
- non-slip surfaces with corrugated structure
- body color: traffic yellow; cover color: black
- surface resistance: 1012 ohm (109 antistatic)
- dielectric strength: 15 kV/mm

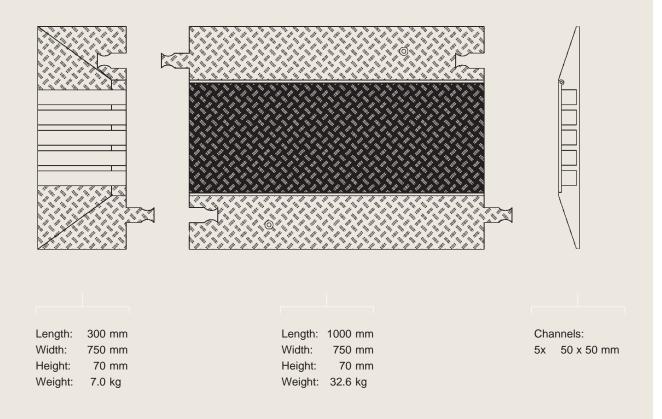
Description	Dimensions (L x W x H)	Weight	Gradient Angle	Order No.
Bridge piece 5.1	1000 x 750 x 70 mm	32.6 kg	ca. 15°	5.1
End piece 5.1	300 x 750 x 70 mm	7.0 kg	ca. 15°	5.1 E
Bridge piece 5.1 antistatic	1000 x 750 x 70 mm	32.6 kg	ca. 15°	5.1 X
End piece 5.1 antistatic	300 x 750 x 70 mm	7.0 kg	ca. 15°	5.1 E X



- other models on request / subject to modification and errors -

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#### Advantages ...

- hardness: 93° Shore A
- tensile strength: 45N/mm2/DIN 53504 and breaking strain of 600%/DIN 53504
- tear resistance: 80N/mm/DIN 53515
- impact resilience: 40-45%/DIN 53512
- abrasion loss: ca. 40 mm3/DIN 53516
- dielectric oils: e.g., for metal-manufacturing and metal-processing industries
- color: yellow-black
- practical size

# ... and Practical Benefits:

- → load capacity of 30 tons if distributed evenly, that is, 60 kp/cm<sup>3</sup>
- → next to no chance of the cable bridge breaking, even under enormous strain; high flexibility
- → high mechanical load-bearing capacity, even after cut damage to the bridge
- → very severe blows are absorbed by the material
- → long service life, even when subjected to extreme mechanical strain
- → after 10 days at +80°C no significant changes in mechanical qualities were apparent; no swelling of the material (text carried out on the BP-180 Dielectric model)
- → hazard identification
- → light and easy handling

# **Type 5.0**



#### Order and Safety within Minutes

Thanks to relatively a low weight and convenient dimensions, the Type 5.0 cable bridges allow you to simply ensure mobile energy supply at professional standards within a very short time.

- diverse range of application areas
- very quick and simple assembly
- tripping hazards are mitigated

### **Technical Data:**

- 5 passage channels
   (4x 30 x 30 mm + 1x 40 x 30 mm)
- material: hot-cast polyurethane, subsequently annealed, temperature-resistant up to 80°C
- non-slip surfaces with corrugated structure
- body color: traffic yellow; cover color: black
- surface resistance: 1012 ohm (109 antistatic)
- dielectric strength: 15 kV/mm

Description	Dimensions (L x W x H)	Weight	Gradient Angle	Order No.
Bridge piece 5.0	900 x 510 x 50 mm	15.0 kg	ca. 15°	5.0
End piece 5.0	175 x 510 x 50 mm	2.6 kg	ca. 15°	5.0 E
Bridge piece 5.0 antistatic	900 x 510 x 50 mm	15.0 kg	ca. 15°	5.0 X
End piece 5.0 antistatic	175 x 510 x 50 mm	2.6 kg	ca. 15°	5.0 E X

### Small on the outside, big on the inside

The 30 x 30 mm channels are for instance suitable for accommodating our INDUSTRIEFLEX®07 cables up to a size of 5 x 16 mm2.

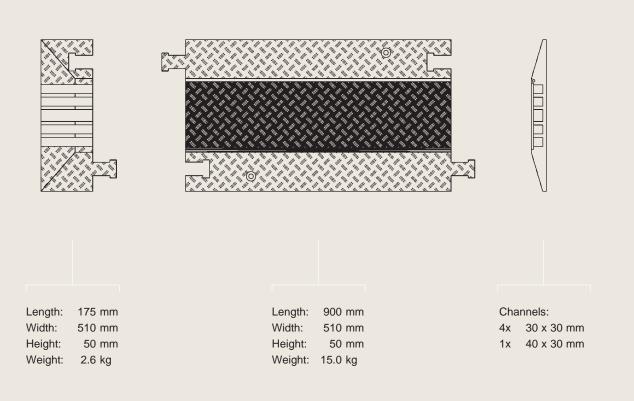
**ELSPRO cable bridges** implement systems engineering to address a variety of application areas. It strives for simple assembly in a short amount of time, for example when securing cables laid across roads.



- other models on request / subject to modification and errors -

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## Advantages ...

- hardness: 93° Shore A
- tensile strength: 45N/mm2/DIN 53504 and breaking strain of 600%/DIN 53504
- tear resistance: 80N/mm/DIN 53515
- impact resilience: 40-45%/DIN 53512
- abrasion loss: ca. 40 mm3/DIN 53516
- dielectric oils: e.g., for metal-manufacturing and metal-processing industries
- color: yellow-black
- practical size

# ... and Practical Benefits:

- → load capacity of 30 tons if distributed evenly, that is, 60 kp/cm3
- → next to no chance of the cable bridge breaking, even under enormous strain; high flexibility
- → high mechanical load-bearing capacity, even after cut damage to the bridge
- → very severe blows are absorbed by the material
- → long service life, even when subjected to extreme mechanical strain
- → after 10 days at +80°C no significant changes in mechanical qualities were apparent; no swelling of the material (text carried out on the BP-180 Dielectric model)
- → hazard identification
- → light and easy handling

# Type KB3X35



# Lightweight - Take the Next One ...

The KB3X35 is an ultra-light premium product made by ELSPRO, featuring an innovative folding mechanism<sup>\*</sup>. Two through holes for fixation guarantee additional opportunities for anchoring the cable bridge. By affixing the yellow ramp cover with the ground below using screws, it is possible to securely close the cable bridge system.

### **Technical Data:**

- load capacity of 9 tons if distributed evenly
- 3 passage channels, each 35 mm in diameter
- material: injection-molded polypropylene
- temperature-resistant from -40° C to +60° C
- non-slip surface with corrugated structure
- color: hazard identification black-yellow; end piece: yellow

Description	Model	Surface resistance	Dimensions (L x W x H)	Weight	Gradient Angle	Order No.
Bridge piece KB3X35			500 x 500 x 55 mm	4,00 kg		KB3X35
End piece KB3X35			160 x 500 x 55 mm	0,85 kg	ca. 20°	KB3X35E
Bridge piece KB3X35	antistatic	< 10 <sup>9</sup> Ohm	500 x 500 x 55 mm	4,00 kg	Ca. 20	KB3X35X
End piece KB3X35	antistatic	< 10 <sup>9</sup> Ohm	160 x 500 x 55 mm	0,85 kg		KB3X35EX

#### The ELSPRO cable bridge system KB3X35 is

designed for diverse fields of use. The system is easy to assemble in a short period of time, which makes it especially suitable for the protective laying of cables, for instance at street festivals, weekly markets, or music and sports events. Monitored crossing by heavy trucks is permitted.

diverse range of application areas

- very quick and simple assembly
- tripping hazards are mitigated

\*German patent no. 102007018590.3



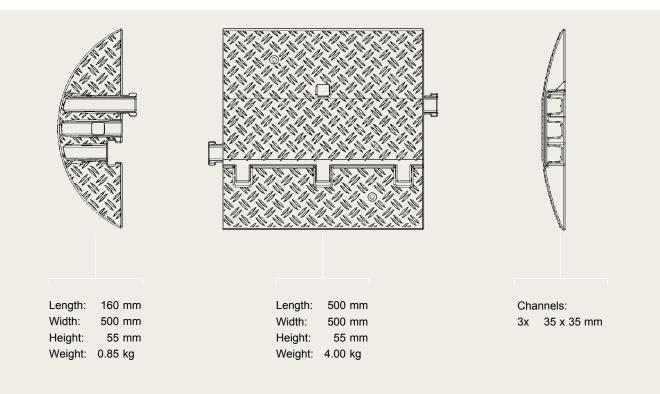
- other models on request / subject to modification and errors -

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# **ELSPRO Cable Bridges for Temporary Mobile Energy Supply**

# Type KB3X35



# FEATURES AND QUALITIES:

- load capacity of 9 tons if distributed evenly
- next to no chance of the cable bridge breaking, even under significant strain; high flexibility
- severe blows are absorbed by the material
- long service life, even when subjected to mechanical strain
- hazard identification yellow-black
- light and easy handling thanks to practical size and very lightweight design

## Special Models on Request:

- → imprinting of company name/logo
- → different color combinations



-	
Access	ories:

Order No.

Stopper Set (4 pieces)

KB3X35S

The underside of each bridge section has been prepared for the addition of four diamond-shaped stoppers made of non-slip elastomer. They improve the resting qualities of smooth surfaces.

- other models on request / subject to modification and errors -

# **ELSPRO Lighting Protection Bridge for Securing Lightening Rods on Flat Roofs**

# Type BB1X20



# Minimal Effort – Large Impact ...

The BB1X20 represents innovation in the field of lightning protection.

### Challenge:

Most buildings with flat roofs have lightning protection systems that are installed at an interval to the roof using special fastening technology. These lightning protection systems are frequently subject to damage because escape paths and operational routes lead across the roof. Damaged lightning conductors are functionally impaired, with repairs or potential damage usually proving to be costly.

**ELSPRO Solution:** ELSPRO lightning protection alleviates tripping hazards on flat roofs.

- no maintenance costs
- escape paths and operational routes are defined and clearly marked as such

# **Technical Data**

- 1 passage channel, 20 mm in diameter
- material: special polyurethane OLAPRENE
  - high resistance to hydrolysis and microbes
  - strong ozone- and UV-resistance
  - specially designed for low-temperature applications
  - highest possible dynamic load-bearing capacity
  - elaborate annealing method (see description on reverse side)
- temperature-resistant from -35° C to +80° C
- non-slip surface with corrugated structure
- color: danger identification yellow

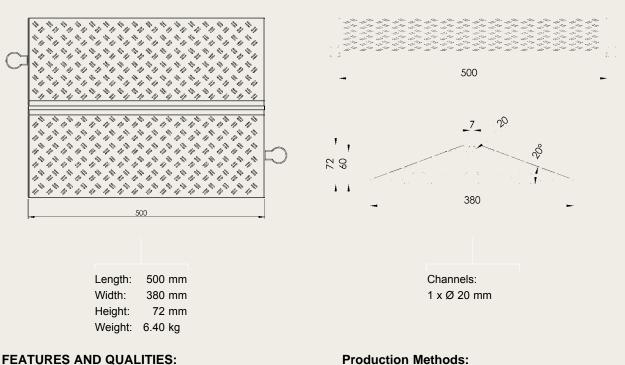
Description	Dimensions (L x W x H)	Weight	Gradient Angle	Order No.
Bridge piece	500 x 380 x 72 mm	6.40 kg	ca. 20°	BB1X20

- subject to modification and errors -

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# Type BB1X20

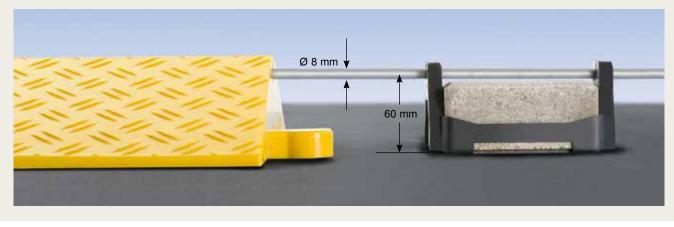


- expected service life of  $\geq$  12 years without any loss of quality
- high UV resistance
- high temperature resistance
- accommodates high water load
- hazard identification yellow
- light and easy handling thanks to practical size
- compatible with standard lightening protections systems (8-10 mm round wire)
- patent pending

# **Production Methods:**

- 1. the liquid components are placed under vacuum (no air pockets) at 95°C to facilitate a reaction
- 2. the prepared liquid raw material is pour into aluminum forms
- 3. the form sections are then annealed in special tempering ovens for at least 16 hours at 100°C
- 4. the annealing process induces a process of artificial ageing in order to achieve the desired physical properties

In the case of existing systems with 8 mm of round conductor wire, the bridge is slid under the conductor and the round wire is lowered into the recess with minimal pressure. That's all! Any unintentional or independent loosening of the round conductor is not possible due to the slightly narrowed opening!



- subject to modification and errors -

# Types SB und SBG



# Bring On the Water!

The ELSPRO hose bridge series guarantees the professional laying of hoses for mobile water supply and sewage disposal. The connecting pieces, which are screwed from one side, ensure strong cohesion and facilitate further extensions. The solid rubber material allows for a very good fit on uneven ground and thus promotes high non-slip qualities. Yellow warning strips on the sides serve to heighten visibility. The hose bridge type SBG2X100 is mainly suitable for light traffic and for keeping pedestrians safe, which is why this bridge model is additionally equipped with reflectors for even better visibility.

# **Technical Data**

- 2 passage channels for hoses with a max. diameter of 75/100/100 mm each
- load capacity if distributed evenly:
  - SB2X75 max. 44 t
  - SB2X100 max. 44 t
  - SBG2X100 max. 5 t
- material: solid rubber
- temperature-resistant from -16° C to +50° C
- color: black with lateral yellow warning stripes
- SBG2X100 additionally features reflectors

Description	Dimensions (L x W x H)*	Max. Hose Diameter	Weight	Gradient Angle	Order No.
Bridge piece SB2X75	855 x 302 x 84 mm	75 mm	13.0 kg	ca. 12°	SB2X75
Bridge piece SB2X100	830 x 320 x 102 mm	100 mm	16.0 kg	ca. 19°	SB2X100
Bridge piece SBG2X100	850 x 300 x 125 mm	100 mm	20.0 kg	ca. 16°	SBG2X100







\* All measurements are reference values and may deviate slightly.

- other models on request / subject to modification and errors -

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# **Electrical Welding Products**

– Plugs, Connectors,
Pliers, Cables,
Accessories

















# **ELSPRO Welding Products**

## **Electrode Holder Pliers**

Fig.	Welding Current/ED	Cable connection	Order No.
1.	300 A/35% 250 A/60%	max. 50 mm <sup>2</sup>	9ZE300
2.	400 A/35% 300 A/60%	max. 70 mm <sup>2</sup>	9ZE400
3.	600 A/35% 350 A/60%	max. 95 mm <sup>2</sup>	9ZE600

- other electrode holder pliers on request -

### Welding Set

#### Electrode holder with **super-flexible** welding cable and plug

Fig.	Length	Cross-Section	Sheath Color	Order No.
1. 2. 3.	3 m 5 m 3 m 5 m 3 m 5 m	25 mm <sup>2</sup> 25 mm <sup>2</sup> 35 mm <sup>2</sup> 35 mm <sup>2</sup> 50 mm <sup>2</sup>	schwarz orange rot	SET2503 SET2505 SET3503 SET3505 SET5003 SET5005

- other cable lengths and types on request -

## Welding Cable Connectors EN 60974.12-IEC 974.12

insulated solid rubber plug components with latch cone contact with clamping collet and clamping screw

16-25 mm <sup>2</sup>	9K025
35-50 mm <sup>2</sup>	9K050
70-95 mm <sup>2</sup>	9K095
120 mm <sup>2</sup>	9K120

# Welding Cable Plugs EN 60974.12-IEC 974.12

insulated solid rubber plug components with latch cone contactwith clamping collet and clamping screw

16-25 mm <sup>2</sup>	9S025
35-50 mm <sup>2</sup>	<b>9S050</b>
70-95 mm <sup>2</sup>	9S095
120 mm <sup>2</sup>	9S120

Built-In Welding Jacks			
	10-25 mm <sup>2</sup>	EB025	
	35-70 mm <sup>2</sup>	EB050	
	70-95 mm <sup>2</sup>	EB095	
	120 mm <sup>2</sup>	EB120	
Built-In Welding P	lugs		
	10-25 mm <sup>2</sup>	ES025	
	35-70 mm <sup>2</sup>	ES050	
	70-95 mm <sup>2</sup>	ES095	
	120 mm <sup>2</sup>	ES120	











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# **ELSPRO Welding Products**

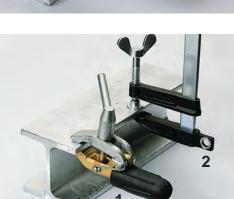
#### Earthing Clamps (brass with copper brackets):

Fig.	Welding Current	Order No.
ALFA 1	500 A	EKA01
ALFA 2	600 A	EKA02











Earthing Clamps (galvanized steel sheet with copper brackets):

Fig.	Welding Current	Order No.
BETA 1	200 A	EKB01
BETA 2	500 A	EKB02

# Earthing Clamps (galvanized steel sheet with copper brackets):

Fig.	Welding Current	Order No.
GAMMA 1	150 A	EKG01
GAMMA 2	200 A	EKG02
GAMMA 3	400 A	EKG03

#### Pol-Welding Screw Clamps (cast steel with copper brackets):

Fig.	Welding Current	Order No.
DELTA 1	600 A	EKD01
DELTA 2	400 A	EKD02

# Battery Clamps (fully insulated galvanized steel sheet with copper brackets):

Model	Welding Current	Order No.
black straight	600 A	BK01
red straight	600 A	BK02
black angled	600 A	BK01W
red angled	600 A	BK02W

 \* customized earthing clamps, pol-welding screw clamps, and battery clamps according to customer specifications \*
 – other items on request / subject to modification and errors –



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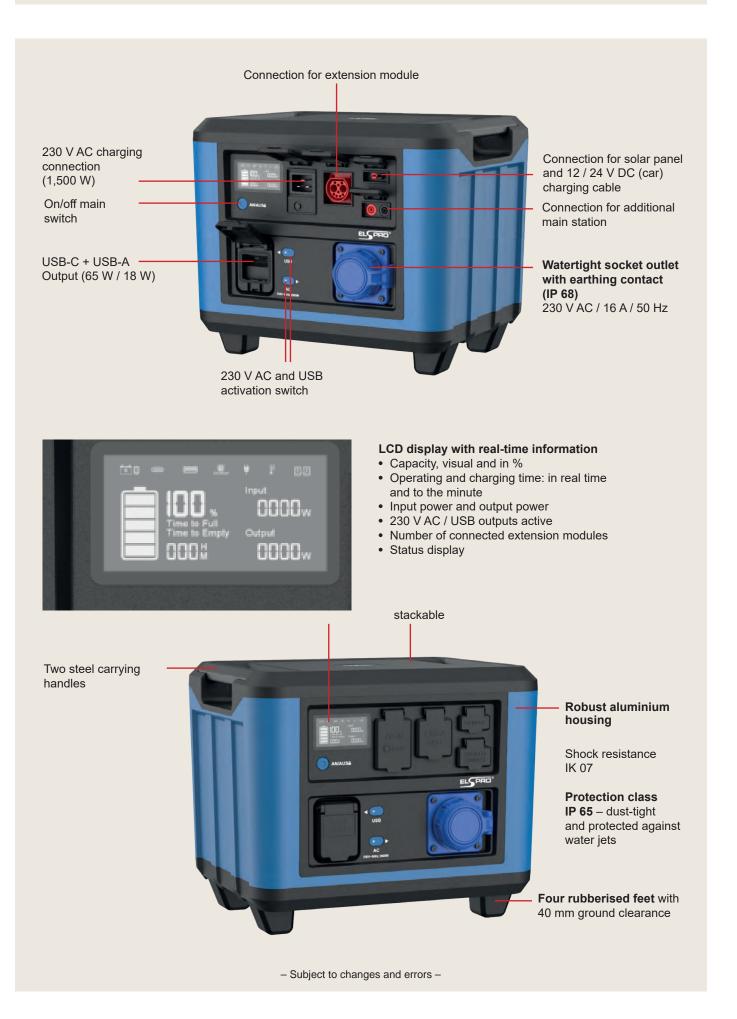
# ELS PRO® POWERSTATION

Off-grid power supply for industry and emergency services



# **Mobile POWERSTATION**

# Off-grid power supply for industry and emergency services



# Mobile POWERSTATION Mains-independent power supply





# TECHNICAL DATA: Main station

Order no.	EMPS2000
Continuous power	2,000 W
Top performance	4,000 W
Capacity	1.5 kWh
Outputs	1 socket outlet with earthing contact - without 📥 - 16 A / 230 V / IP 68 1 USB-C (65 W) / 1 USB-A (18 W)
Protection type	IP 65
Charging time	1 hour to 70% / 1.5 hours to 100%
Capacity display	LCD display
Ambient temperature	-20°C to +40°C
Protection class	1
Dimensions	385 x 322 x 310 (W x H x D)
Weight	26 kg

Supplied with 230 V AC charging cable (2 m) H07RN-F (item no. EMPS008)

### **Extension module**

Order no.	EMPS2000EM
Capacity	1.5 kWh
Protection type	IP 65
Capacity display	8 LEDs
Ambient temperature	-20°C to +40°C
Dimensions	385 x 230 x 306 (W x H x D)
Weight	19 kg

Delivery includes connection cable to the main station (item no. EMPS007)

- Subject to changes and errors -

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# Mobile POWERSTATION

# Off-grid power supply for industry and emergency services

# Cost savings

# Time saving

# Increased safety

### ELSPRO POWERSTATION - the mobile power source for demanding environments

The mobile ELSPRO POWERSTATION is a reliable portable power source for challenging applications and provides power wherever and whenever it is needed. It is perfect for spontaneous emergencies, temporary construction and assembly sites and use in remote areas - quietly and without emissions. If the ELSPRO POWERSTATION is not required for an extended period of time, it remains ready for use for months due to its extremely low self-discharge rate of < 3% per month.

# SPECIAL FEATURES:

LITHIUM-IRON PHOSPHATE - the particularly safe lithium-ion technology

- 32 high-performance LiFePO4 cells (51.2 V DC, 30,000 mAh, 1,536 Wh)
- Particularly safe: certified according to UN 38.3 and UL62133
- High operational reliability: the battery is fully charged in 1.5 hours and the self-discharge rate is < 3% / month</li>
  Environmentally friendly: LiFePO4 batteries can be largely recycled and individual battery cells or the entire
- Environmentally menoly: LiFePO4 ballenes can be larger POWERSTATION battery can be replaced
- Cobalt-free and long service life conserves resources

#### **INCREASED SAFETY**

- No risk of fire/explosion due to lithium iron phosphate battery
- Suitable for permanent outdoor use thanks to its robust design and high degree of protection
- · All outputs must be activated before each operation
- Self-closing hinged cover in front of all inputs and outputs
- Automatic switch-off after 30 minutes if no loads are connected
- LCD display with status and remaining capacity display
- Emergency power function for an uninterruptible power supply (UPS):
- When a device is connected to the POWERSTATION while it is plugged into the mains, the device is powered directly by the grid. If the power fails, the POWERSTATION switches to emergency power mode within ≤ 10 ms and supplies the load directly



### **ADDITIONAL PROTECTION:**

**Internal, automatic fire extinguishing unit:** Nitrogen is released when a sensor detects significant overheating inside the housing

# scan here for a video



### COST SAVINGS

- High **Battery service life** and **Cycle stability**  $\rightarrow$  after 2,500 charging cycles  $\geq$  80% of the original capacity
- Easy to repair: high availability of spare parts
- Charging via solar (800 W / 12-60 V DC) through Anderson connection
- robust and resistant die-cast aluminium housing, plastic powder-coated
- Low operating costs: no costs for petrol, oil and maintenance
- Intelligent battery management system (BMS) monitors and controls the complete charging and discharging process of every single battery cell in the POWERSTATION: overcharge protection / overdischarge protection / overvoltage protection / overcurrent protection / short-circuit protection / overheating protection / low temperature protection

### TIME SAVING

- · Easy handling: easy to stow away thanks to its compact design and quickly ready for use thanks to easy transport
- Maintenance-free thanks to passive cooling no tedious cleaning of fans or filters necessary
- Fast charging from 0 to 100% in 1.5 hours thanks to 1,500 W charging power
- Can also be charged in the car (12 / 24 V DC)

- Subject to changes and errors -

# Mobile POWERSTATION

# Off-grid power supply for industry and emergency services

# CAPACITY expandable:

Modular expansion to a capacity of up to 6 kWh







1 x EMPS2000 main station 1 x EMPS2000EM extension module



1 x EMPS2000 main station 2 x EMPS2000EM extension module 6 kWh



1 x EMPS2000 main station 3 x EMPS2000EM extension module

# PERFORMANCE AND CAPACITY expandable:

Modular expansion to a continuous output of 4,000 W (8,000 W peak output) – by connecting two main stations – and a capacity of up to 7.5 kWh

**Example 1 (Fig. left):** 2 x EMPS2000 main station with 1 x EMPS006 connection cable (PARALLEL CONNECT)

Capacity 3 kWh

Example 2 (Fig. right): 2 x EMPS2000 main station 1 x EMPS2000EM extension module Capacity 4.5 kWh



# OPERATING TIME of various consumers connected to a main station (1.5 kWh):



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# **Mobile POWERSTATION** Off-grid power supply for industry and emergency services



Steel protective frame for ELSPRO POWERSTATION



Transport trolley for ELSPRO POWERSTATION



ELSPRO POWERSTATION with safety distributor HILDEN

ACCESSORIES AND SPARE PARTS: Steel protective frame with carrying handles	Order no. <b>EMPS-SG</b>
Transport trolley with telescopic handle (max. load capacity 100 kg)	EMPS-TK
Protective cover (not shown)	EMPS-SH
Replacement cover (AC-IN)	EMPS001
Replacement lid (EXTRA BAT+)	EMPS002
Replacement cover (PV-INPUT)	EMPS003
Replacement lid (PARALLEL CONNECT)	EMPS004
Replacement cover (USB-C / USB-A)	EMPS005
Connection cable (PARALLEL CONNECT)	EMPS006
Replacement cable (EXTRA BAT+)	EMPS007
Spare charging cable (2 m standard H07RN-F)	EMPS008
Charging cable 12 / 24 V DC (car)	EMPS009
Solar charging cable (PV-INPUT)	EMPS011
Replacement stand cover	EMPS012
Charging cable (5 m INDUSTRIEFLEX $^{\ensuremath{\circledast}}$ 07 HT)	S/PG/5/KGK

Mobile solid rubber distributor HILDEN	1310052
in accordance with DGUV Information 203-032 3 socket outlets with earthing contact (3 pole / 16 A / 230 V)	
3 RCD residual current circuit-breaker (2 pole / 25 A / 30 mA / type A)	

10 m extension cable INDUSTRIEFLEX® 07 HT 3G1.5 mm<sup>2</sup> H07RN-F / H07RN8-F / H07BN4-F Earthing contact plug and coupling / 3 pol. / 16 A / 230 V

S10KPG

 additional special distributors on p. 5.12 and on request / also available as pressurised water-tight versions –



- Subject to changes and errors -

# COMPACT DIMENSIONS:

#### **Main station**

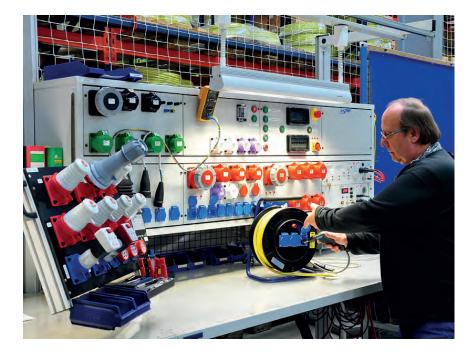




# **QUALITY GUARANTEED**

Our products reflect the current state of technology and conform to German and European norms. We are certified according to the standard DIN EN ISO 9001.





# **ELSPRO = ELECTROTECHNICAL SAFETY PRODUCTS**

Since the company was founded in April 1986, safety and personal protection when dealing with electrotechnical equipment has always been the primary focus for ELSPRO.

# Reliable, flexible and service-orientated – our focus is on long-term cooperation

ELSPRO products offer you maximum safety in the professional distribution of light and electricity. The implementation of your product requirements are always based on state-of-the-art technologies while being compliant with the latest directives.

We offer "technology without compromise", are happy to advise you and develop tailor-made solutions for you.

# Creative, customer-orientated and close to the market – we grow with your requirements

Constant training and consistent product development over many years form the basis of our extensive range of electrotechnical safety products. Innovative product solutions arise constantly from day-to-day business thanks to partnership-oriented cooperation between our qualified staff and discerning customers.

# ELSPRO – Electrotechnology at the highest level

From our headquarter in Hilden, we supply the European market with high quality ELSPRO products. Individual consultancy and order-related production are a key part of our day-to-day business. Customerorientated support is provided by an extensive network of regional offices and expert advice from our qualified field staff.

Upon request, your personal contact will be delighted to present products which may interest you at your premises.

# On the safe side with ELSPRO

Together we investigate your individual requirements. Our departments will then work out dedicated electrotechnical product solutions of the highest safety standard, true to our motto "technology without compromise".

# As a manufacturer, we offer you the following benefits:

- production to customer specifications
- on-site support by our technical field staff
- qualified contact persons in the head office
- detailed knowledge of the current regulations





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- ⊠ sales@elspro.de
- https://www.elspro.de/en

