



- for safe earthing and conduction of shielding textiles (Dali, Picasso, Topas- ST), as well as the shielding fleece (Rubens Light) and loosely laid building fabrics (Adamantan 003)

- transparent earthing cable with attached snap fastener

- for fixed wiring

- The earthing set-B consists of a 3.5 metre long transparent earthing cable with a push button and a wire end sleeve at each end.

The push button has an enlarged contact surface for better contact with the umbrella material.

The wire end sleeve attached to the end is used for fixed wiring at the points provided for this purpose in the electrical installation (socket, fuse box, FPA rail).

● **IMPORTANT!**

The necessary installation must be carried out by a qualified electrician. A residual current circuit breaker (FI, RCD  $\leq 30\text{mA}$ ) must be present in the circuit. This device is a standard part of every electrical installation and will be installed by your electrician if not available.

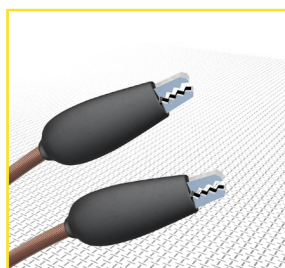
All electrical work (work on electrical equipment and installations) must be carried out and inspected by a qualified electrician or under their direction and supervision!

Only use the earthing set in normally tempered, dry indoor rooms. Do not use outdoors!

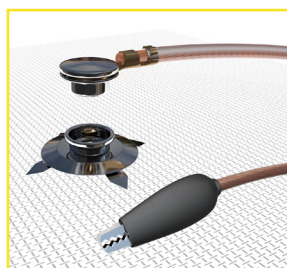
**Order-No.: 710069**

Short-Desc.: Grounding set ESB

- **Grounding set ESR-AK or ESB-K for temporary grounding of screen textiles and fleeces. Very well suited for building biology premeasurements.**



Grounding set ESR-AK



Grounding set ESB-K

### Grounding accessories

#### Grounding set-B (ESB)

##### Technical data

length:	3,5 metre
colour:	transparent
weight:	ca. 100 g
cross section:	2,5 mm <sup>2</sup>
push button:	part inside: Ø 12 mm pad: Ø 25 mm

#### Suitable for the following shielding textiles

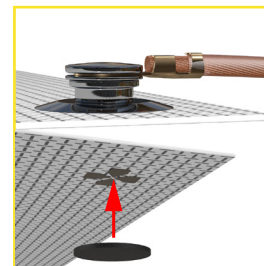
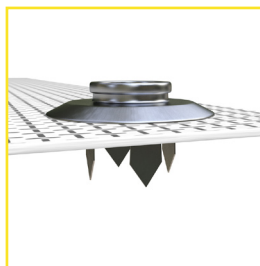
shielding fabric Picasso
shielding knitted fabric Dali
canopy underlay Topas-ST

#### Suitable for the following fleeces

shielding fleece Rubens Light
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#### Suitable for the following construction fabrics

shielding fabric Adamantan 003
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### Grounding Accessories

#### Grounding set ESR-AK

##### Technical data

length, colour, cross-section:	3,5 metre, transparent, 2,5 mm <sup>2</sup>
tapping clamp:	insulated on both sides

### Grounding accessories

#### Grounding set ESB-K

##### Technical data

length, colour, cross-section:	3,5 metre, transparent, 2,5 mm <sup>2</sup>
tapping clamp:	insulated on one side
push button:	inner part: Ø 12 mm support: Ø 25 mm

**Order-No.: 721165**

Short-Desc.: Grounding set ESR-AK

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Short-Desc.: Grounding set ESR-AK

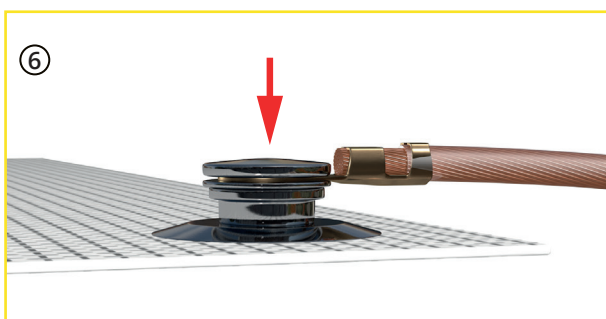
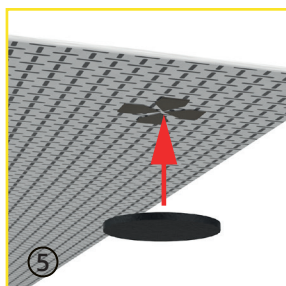
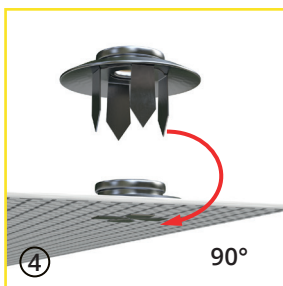
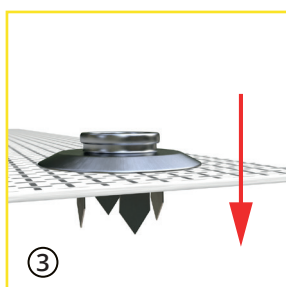
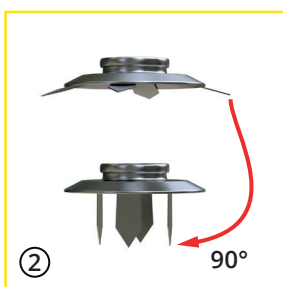
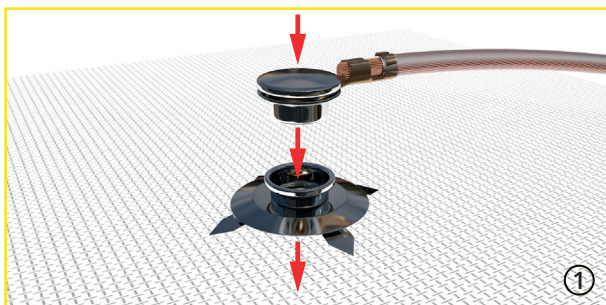
## Grounding push-button

### General assembly Grounding push button

#### Products

For stationary use:

Grounding sets: ESB, ESB-K, ESR-DK



#### Installation

1. Specify the position of the ground connection.  
See Fig. 1. When using two sheets, it is recommended to set the grounding point in the overlap area. If more than two strips of fleece or fabric are used, the grounding strap AEB 3.0 is required for the connection. In this case, the push-button base is butted through the grounding strap and shielding material.
2. Bend the tips of the push button base 90° and carefully push them through the shielding material at the intended point. See fig. 2 + 3.
3. Then bend the tips a further 90° to permanently attach the push button base to the shielding material. See fig. 4.
4. Stick the supplied protective pad onto the bent-over tips of the push-button bottom part. Connect the top part of the push button to the bottom part attached to the material. See fig. 5.
5. Now the lower part of the push button can be connected to the upper part of the push button of the respective grounding set. See fig. 6.

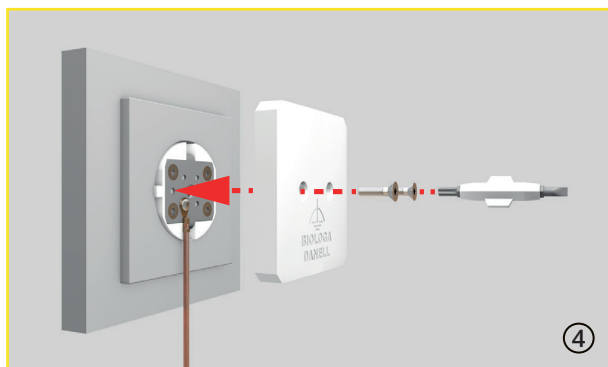
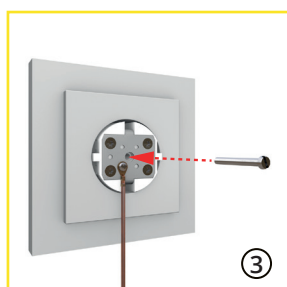
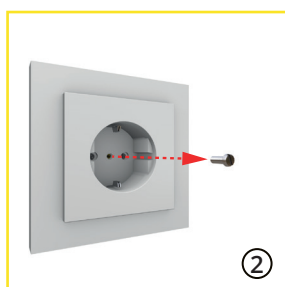
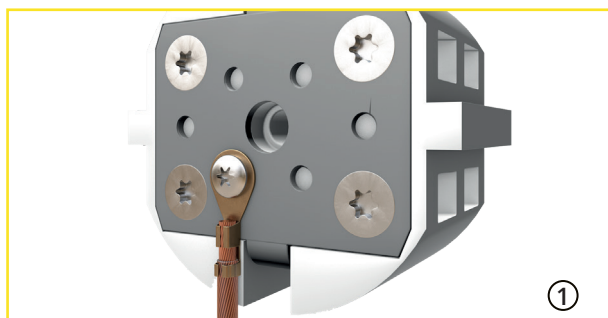
ESR-SA - Grounding adapter - Art.No.: 711076

## General installation grounding plug ESR-SA

### Products

For stationary use:

Grounding sets: ESR-ST, ESR-USB



### Installation

1. Using the screw aid, connect one of the supplied M4 x 6 mm Torx screws to the M4 ring eye of the connection cable to the adapter (Torx T20). **See fig. 1.**
2. Turn off the circuit of the socket by means of the fuse.
3. Remove the centre screw of the socket. **See fig. 2.**
4. Connect the plug to the socket by first placing the adapter. Depending on your needs, you can use the supplied longer M2.5 or M3 x 35 mm centre screw to fix the plug. **See fig. 3.**
5. Secure the cover with the two M4 x 8 mm Torx screws supplied. **See fig. 2.**
6. Now the other side of the respective grounding set can be mounted and connected.

The socket is no longer available for the use of electrical consumers.  
For temporary use, the schuko grounding adapter can also be used in Schuko socket strips or other Schuko distributors.

### The 5 security rules

*Before starting the work:*

- **Unlock**
- **Secure against being switched on again**
- **Check that no voltage is present**
- **Ground and short-circuit**
- **Cover or isolate neighbouring live parts.**

**ESB - Push button ➔ Wire end sleeve - Art.no.: 710069**

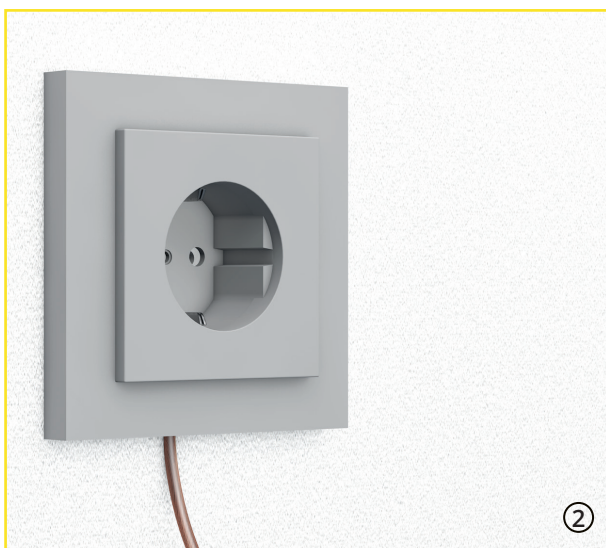
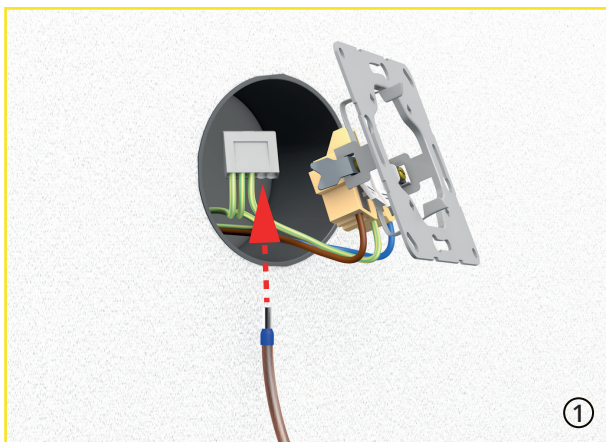
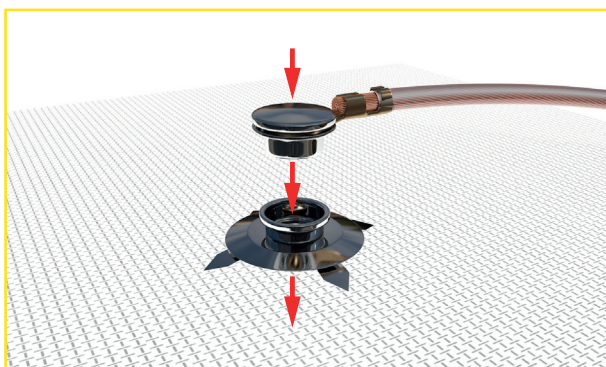
**Grounding set B - ESB**

**Scope of delivery**

- 1 x Grounding cable transparent 350 cm  
incl. mounted push-button top
- 1 x Push-button base  
to pierce the shielding material
- 1 x Protection pad

**For stationary use:**

- Rubens Light (loose placing)
- Adamantan 003 (loose placing)
- Picasso
- Dali



**Installation**

1. Push-button installation.  
**See page 1.**
2. The open end is now firmly connected to the potential bonding by a qualified electrician.
3. To do this, the socket insert is removed and the open end is inserted into the appliance box and connected to the PE terminal. **See fig. 1.**
4. The socket can now still be used for electrical consumers. **See fig. 2.**

**The 5 security rules**

*Before starting the work:*

- Unlock
- Secure against being switched on again
- Check that no voltage is present
- Ground and short-circuit
- Cover or isolate neighbouring live parts.

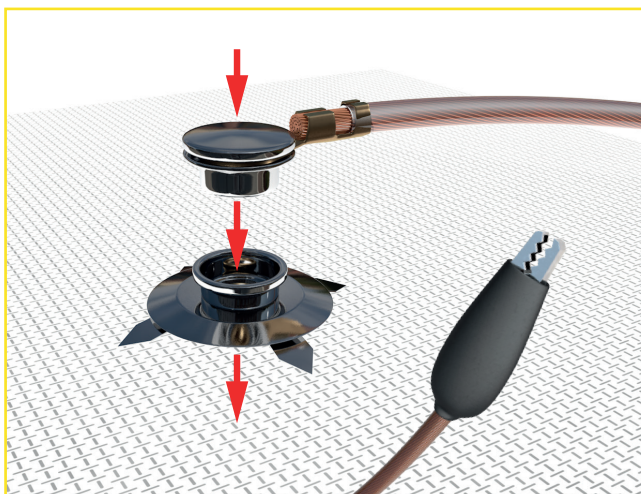
**ESB-K - Push button ➔ Pick-up clamp - Art.Nr.: 710554**

**Grounding set ESB-K**

**Scope of delivery**

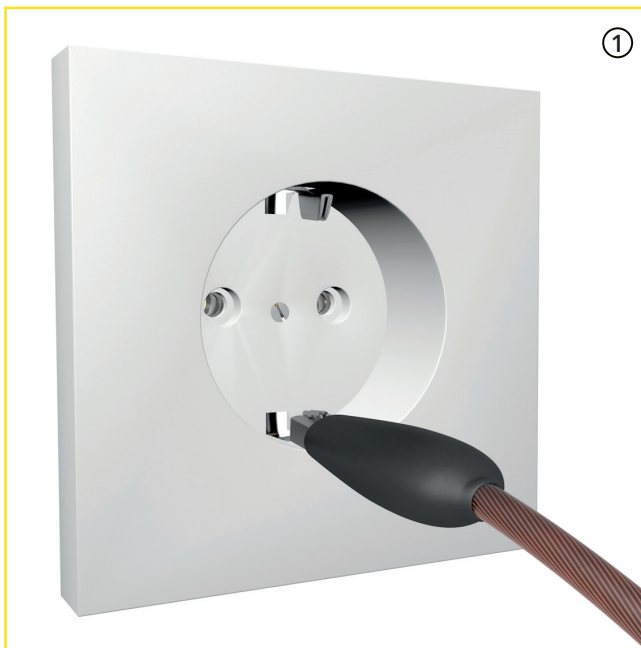
- 1 x Grounding cable transparent 350 cm  
incl. mounted push-button upper part and  
Pick-up clamp
- 1 x Push-button bottom part  
for piercing the shielding material
- 1 x Protection pad

**For temporary application:**  
Rubens Light (Loose placing)  
Adamantan 003 (Loose placing)  
Picasso  
Dali



**Installation**

1. Push-button mounting.  
See page 1.
2. The opposite tapping terminal can now be temporarily connected to the potential bonding as with PE terminals of sockets or suitable earthed pipes. See Fig. 1.



**Attention:**  
For temporary use only.

**The 5 security rules**

*Before starting the work:*

- Unlock
- Secure against being switched on again
- Check that no voltage is present
- Ground and short-circuit
- Cover or isolate neighbouring live parts.

ESB-AK - Pick-up terminal ➔ Pick-up terminal - Art.Nr.: 711165

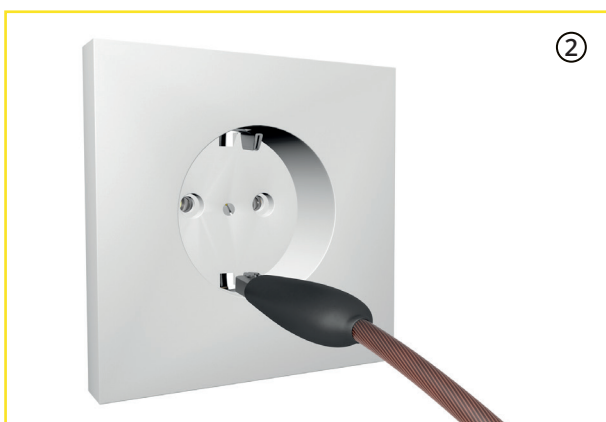
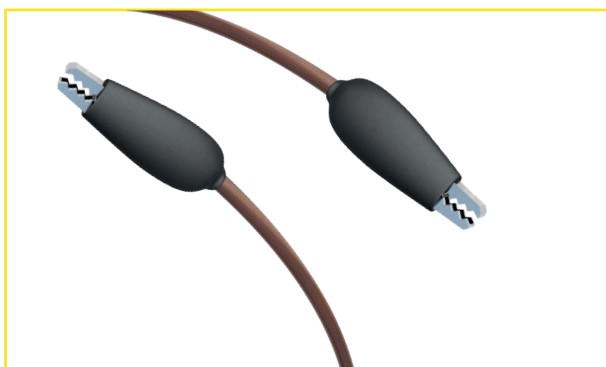
## Grounding set ESB-AK

### Scope of delivery

1 x Grounding cable transparent 350 cm  
incl. mounted tapping clamps

### For temporary use:

Rubens Light (Loose placing)  
Adamantan 003 (Loose placing)  
Picasso  
Dali



### Installation

1. Determine the position of the ground connection. When using two sheets of shielding material, it is recommended to set the grounding point in the overlap area. If more than two strips of fleece or fabric are used, the grounding strap AEB 3.0 is required for the electrically conductive connection. In this case, the grounding set is connected directly to the grounding strap and the material with the help of the pick-up clamp.

2. Attach a pick-up clamp with the shielding material. **See fig. 1.**

3. The opposite tapping terminal can now be temporarily connected to the potential bonding as with PE terminals of sockets or suitable earthed pipes. **See fig. 2.**

**Attention:**  
For temporary use only.

### The 5 security rules

*Before starting the work:*

- Unlock
- Secure against being switched on again
- Check that no voltage is present
- Ground and short-circuit
- Cover or isolate neighbouring live parts.

ESR-ST - Ring eyelet ➔ Schuko adapter - Art.Nr.: 711068+711076

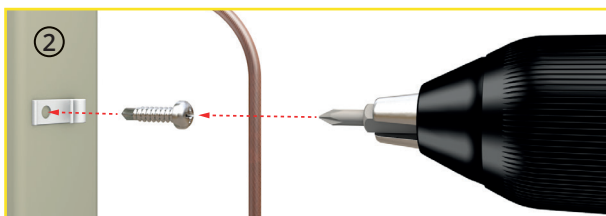
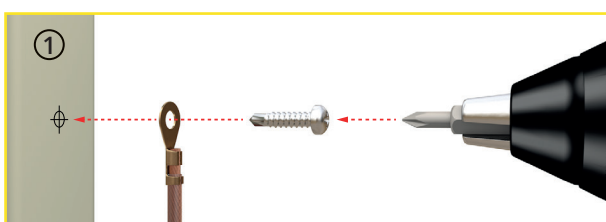
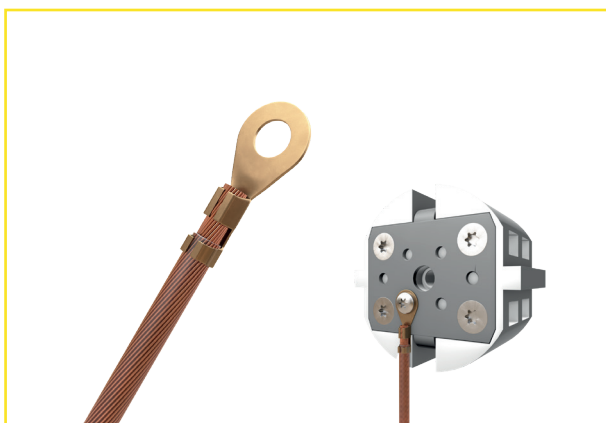
## Comfort desk grounding set - ESR-ST

### Scope of delivery

- 1 x Grounding cable transparent 350 cm  
incl. mounted ring eyelets (M4 + M5)
- 1 x Schuko adapter (grounding plug)  
for installation on socket outlet
- 1 x Adapter
- 1 x Cover (lid)
- 1 x Screwing tool for installation
- 4 x Screw Eyelet M4 x 5 mm
- 2 x Screw fixation plug  
M2.5 + M3 x 35 mm
- 1 x Self-tapping screw
- 1 x Cable clamp
- 1 x Cable tie 100 mm

### For stationary use:

Grounding of desk frames or other  
electrically conductive parts.



### Installation

1. Adapter mounting. **See page 2.**
2. To attach the ring eyelet to desk or bed frames and other electrically conductive parts, screw the self-tapping screw supplied through the ring eyelet at the previously determined grounding point using a cordless screwdriver. **See fig. 1.**
3. If the cable is to be fed through a wall, drill a hole with a diameter of 5 mm, cut off the existing ring eye and put the cable first through the grommet, then through the wall. Crimp the supplied ring eye 2.5 mm<sup>2</sup> M4 to the end of the cable.
4. Define the point of the cable clamp (approx. 5 - 10 cm from the ring eyelet) and also screw it in through the cable clamp with a cordless screwdriver. **See fig. 2.**

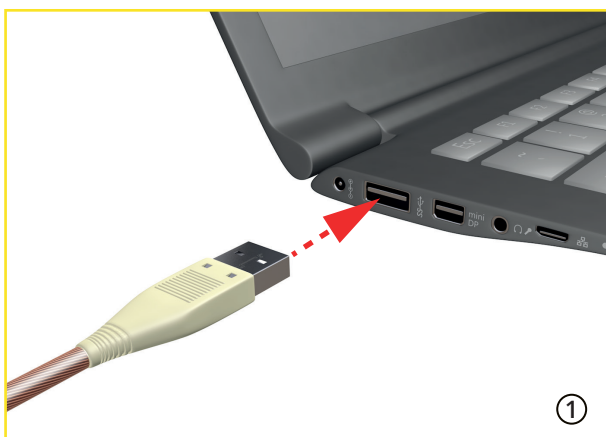
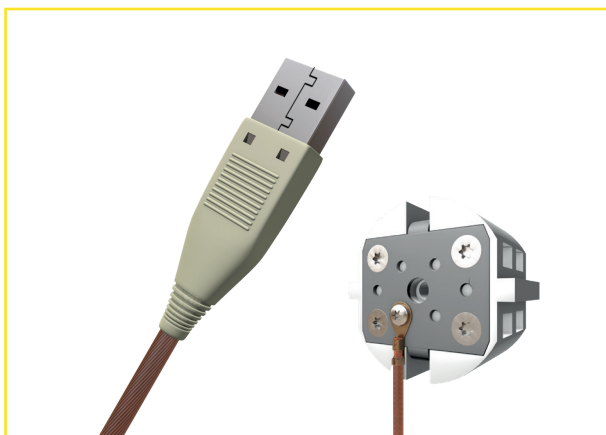
**ESR-USB - USB-plug ➔ Schuko adapter - Art.Nr.: 711150**

**Grounding set Comfort USB - ESR-USB**

**Scope of delivery**

- 1 x Grounding cable transparent 350 cm  
incl. mounted ring eye (M4) and  
USB TYPE A plug
- 1 x Schuko adapter (grounding plug)  
for installation on socket outlet
- 1 x Adapter
- 1 x Cover (lid)
- 1 x Screwing tool for installation
- 2 x Screw fixation plug  
M2.5 + M3 x 35 mm
- 4 x Screw Eyelet M4

**For stationary and mobile use:**  
Grounding of notebooks, routers and other  
USB-enabled devices.



**Installation**

1. Adapter mounting. See page 2.
2. Insert the USB A grounding plug into a suitable USB  
socket in your notebook. See fig. 1.
3. Other devices equipped with USB A sockets, such as  
routers, can also be grounded in this way.

Grounding plugs conduct only the earth contact, not the mains voltage or data! A prerequisite for the dissipation of the alternating electric fields is that the existing electrical installation and the protective equipotential bonding (consult a qualified electrician).

Experience shows that (depending on the measuring method) the value of the electrical alternating fields on notebooks is reduced from 50-300 V/m to mostly 1-6 V/m.

If necessary (not prescribed), the grounding plug can be mechanically fixed with the enclosed screw.

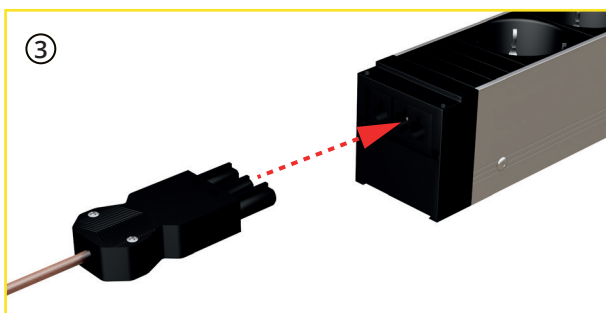
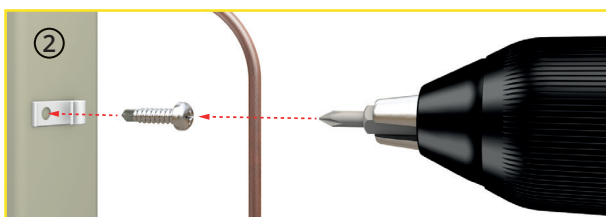
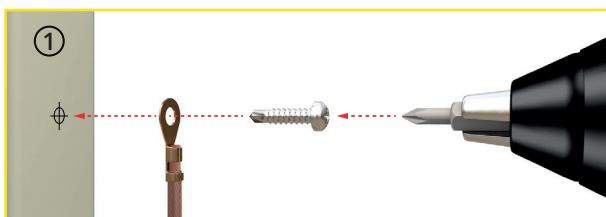
**ESR-SYS - System connector ➔ Ring eyelet - Art.Nr.: 301000**

**Desk system grounding set - ESR-MSDS-ST**

**Scope of delivery**

1 x Grounding cable transparent 350 cm  
incl. mounted ring eyelets (M4 + M5)

**For stationary use:**  
Grounding of desk frames or other  
electrically conductive parts.



**Installation**

1. To attach the ring eyelet to desk or bed frames and other electrically conductive parts, screw the self-tapping screw supplied through the ring eyelet at the previously determined grounding point using a cordless screwdriver. **See fig. 1.**
2. If the cable is to be fed through a wall, drill a hole with a diameter of 5 mm, cut off the existing ring eye and put the cable first through the grommet, then through the wall. Crimp the supplied ring eye 2.5 mm<sup>2</sup> M4 to the end of the cable.
3. Define the point of the cable clamp (approx. 5 - 10 cm from the ring eyelet) and also screw it in through the cable clamp with a cordless screwdriver. **See fig. 2.**
4. Plug the system connector into a free system socket of your MSDS system. **See Fig. 3.**

**Attention:**  
Always check the grounding of the  
existing electrical installation first!  
This can be done with a commercially  
available conventional socket tester.

ESR-SYS - System connector ➔ USB - Art.Nr.: 301105

## Grounding set System USB - ESR-MSDS-USB

### Scope of delivery

1 x Grounding cable transparent 350 cm with system plug incl. mounted ring eye (M4) and USB TYPE A plug

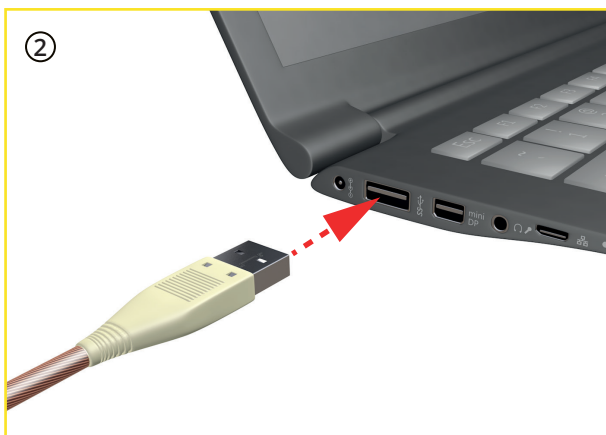
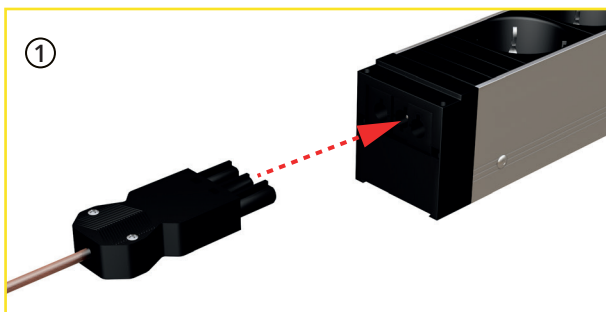
### For stationary use:

Grounding of notebooks, routers and other USB-enabled devices.



### Installation

1. Plug the system connector into a free system socket of your MSDS system.  
See Fig. 1.
2. Insert the USB type A grounding plug into a suitable USB socket in your notebook.  
See fig. 2.
3. Other devices fitted with USB type A sockets, such as routers, can also be grounded in this way.



### Further reduction of EWF in the workplace area:

Use of shielded connection and extension cables, socket strips and task lamps.

You can find these in our online shop at:  
[www.biologadanell.com](http://www.biologadanell.com)

As these are movable and pluggable connection and consumption devices, this measure can usually be carried out by a layperson. The use of these connection and consumption devices is also possible and sensible in other areas/rooms where people stay for a longer period of time.