

# Surface-mounted junction boxes

Designed and made in the Nordics



- Sturdy and durable structure for all installations.
- IP65 class for demanding environments.
- Many color options for color coding of different wiring groups.

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**ABB junction boxes are the professional benchmark due to their ease of installation and functionality, fulfilling the essential fire safety requirements according to the Low Voltage Directive (2006/95/EC).**

# Wide range of junction boxes that covers demanding installation needs



**AP9, AP9/G and AP9M**  
(white, grey and black)  
Box color can be chosen according to color scheme of the surroundings or can be used for color coding different wiring groups.

**Size (LxWxD):** 86x86x39 mm  
**Enclosure class:** IP65



**AP9R and AP9V**  
(green and red)  
Can be used for special cases, such as color coding of different wiring groups.

**Size (LxWxD):** 86x86x39 mm  
**Enclosure class:** IP65



**AP10, AP10/G and AP10M**  
(white, grey and black)  
When extra installation space is needed. Box color can be chosen according to color scheme of the surroundings or can be used for color coding different wiring groups.

**Size (LxWxD):** 104x104x46 mm  
**Enclosure class:** IP65



**AP75**  
Compact box with a lot of functionalities. Pull-out brackets make it easy to fix to the wall. There is a place, for example, for PCB.

**Size (LxWxD):** 75x75 mm  
**Enclosure class:** IP65



**AP7**  
Screw-closed, suitable for special installations in premises such as car parks.

**Size:** Ø115 mm  
**Enclosure class:** IP44



**AP7.1**  
Screw-closed with strain relief. Suitable for electrical installations of devices such as ovens and stoves.

**Size:** Ø115 mm  
**Enclosure class:** IP44





Due to superior design and materials used in AP9 and AP10, boxes are protected against cold environment and suitable for use at the temperature down to minus  $-25^{\circ}\text{C}$ .





AP9 and AP10 junction boxes are manufactured using a two-component system and include 12 easily perforated membrane cable entries on the sides and two in the bottom.



**Total 14 cable entries.**  
Three on each side (Ø 17 mm)  
and two at the bottom Ø 19 mm



**IP65 enclosure class**



**Mounting temperature**  
-25...+60 °C



**Large space for wires  
and connectors**



**Superior self-sealing membrane  
cable entries**



**Quick snap-on cover  
fastening**



**Sealing possibilities**



**The lid is reassembled  
to the box at the  
factory. It can be  
removed manually  
without any tools.**



**High-quality halogen-free  
material**



# Specifications

## AP9 (86x86 mm)

Available colors



Quick  
snap-on  
cover



Approved for -25°C  
mounting temperature

IP65

Approved for IP65  
enclosure class

The cover can be sealed  
from two opposing corners



Includes 14 membrane cable entries, 3 on each side (Ø 17 mm) and 2 at the bottom (Ø 19 mm). The entries include markings for the maximum cable size.

### Cover markings

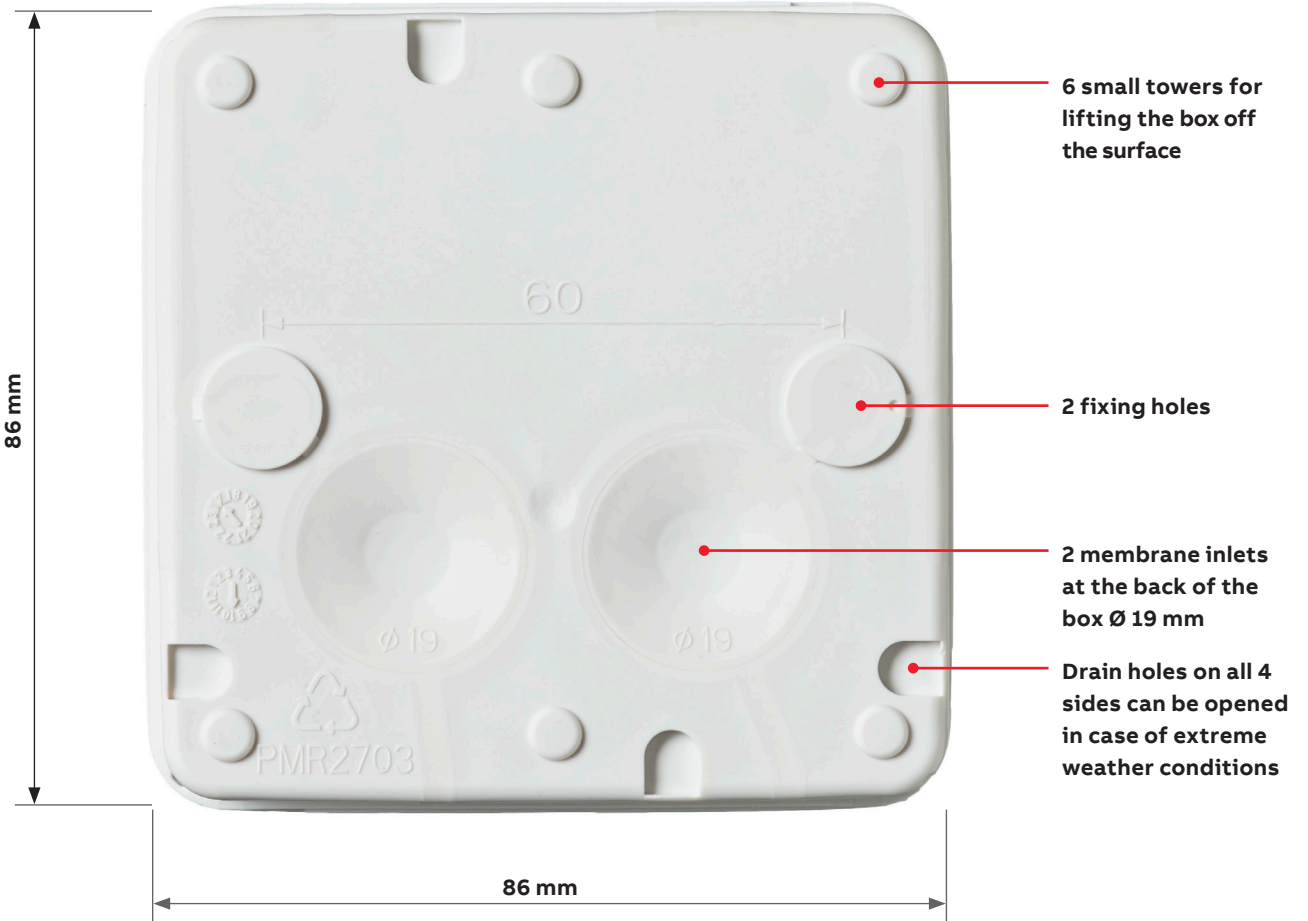
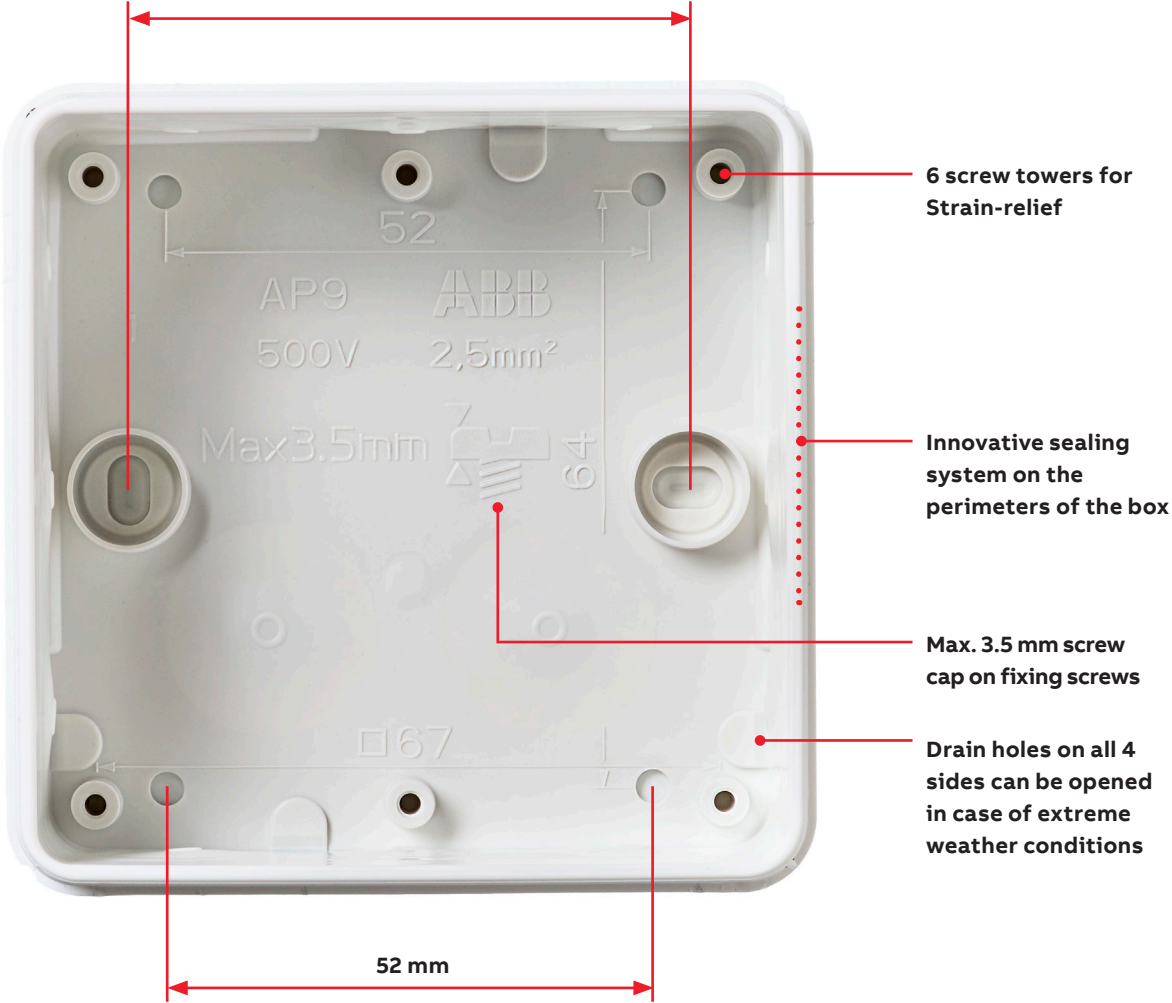
The max. number of terminals and conductors for the different cable thicknesses can be found in the cover. Due to different testing procedures between national certification companies (Fimko/ Semko/Demko and VDE), the amount of terminals and wires are different. With AP9 box VDE approval, there are fewer wires and terminals compared to Fimko/ Semko/Demko or Nemko.

AP9		1,5 <sup>2</sup>	2,5 <sup>2</sup>
Terminals Littinia	Klemmen Klemmor	10	8
Conductors Johtimia	Leiter Ledare	30	24
Anzahl der Klemmen		8	6
Anzahl der Leiter		24	20



**60 mm**

The distance between the mounting screws is 60 mm, which means it can be attached straight onto a mounting box





# Specifications

## AP10 (104x104 mm)

Available colors



Quick  
snap-on  
cover



Approved for -25°C  
mounting temperature



Approved for IP65  
enclosure class



The cover can be sealed  
from two opposing corners



Includes 14 (Ø 19 mm) membrane cable entries.  
3 on each sides and 2 at the bottom. The entries  
include markings for the maximum cable size.

### Cover markings

The max. number of terminals and conductors for the different cable thicknesses can be found in the cover. Due to different testing procedures between national certification companies (Fimko/ Semko/Demko and VDE), the amount of terminals and wires are different. With AP10 box VDE approval, there are fewer wires and terminals compared to Fimko/ Semko/Demko or Nemko.

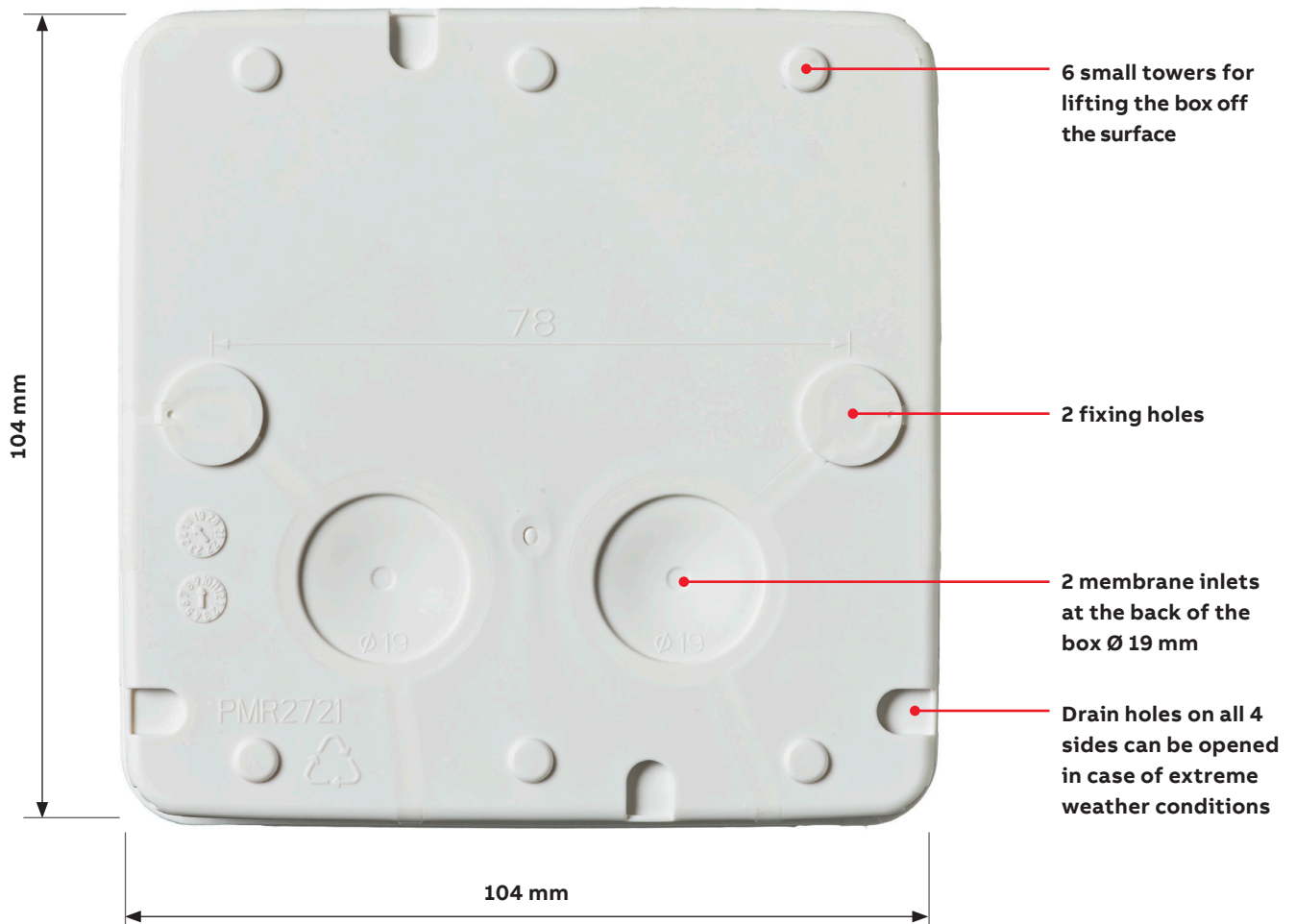
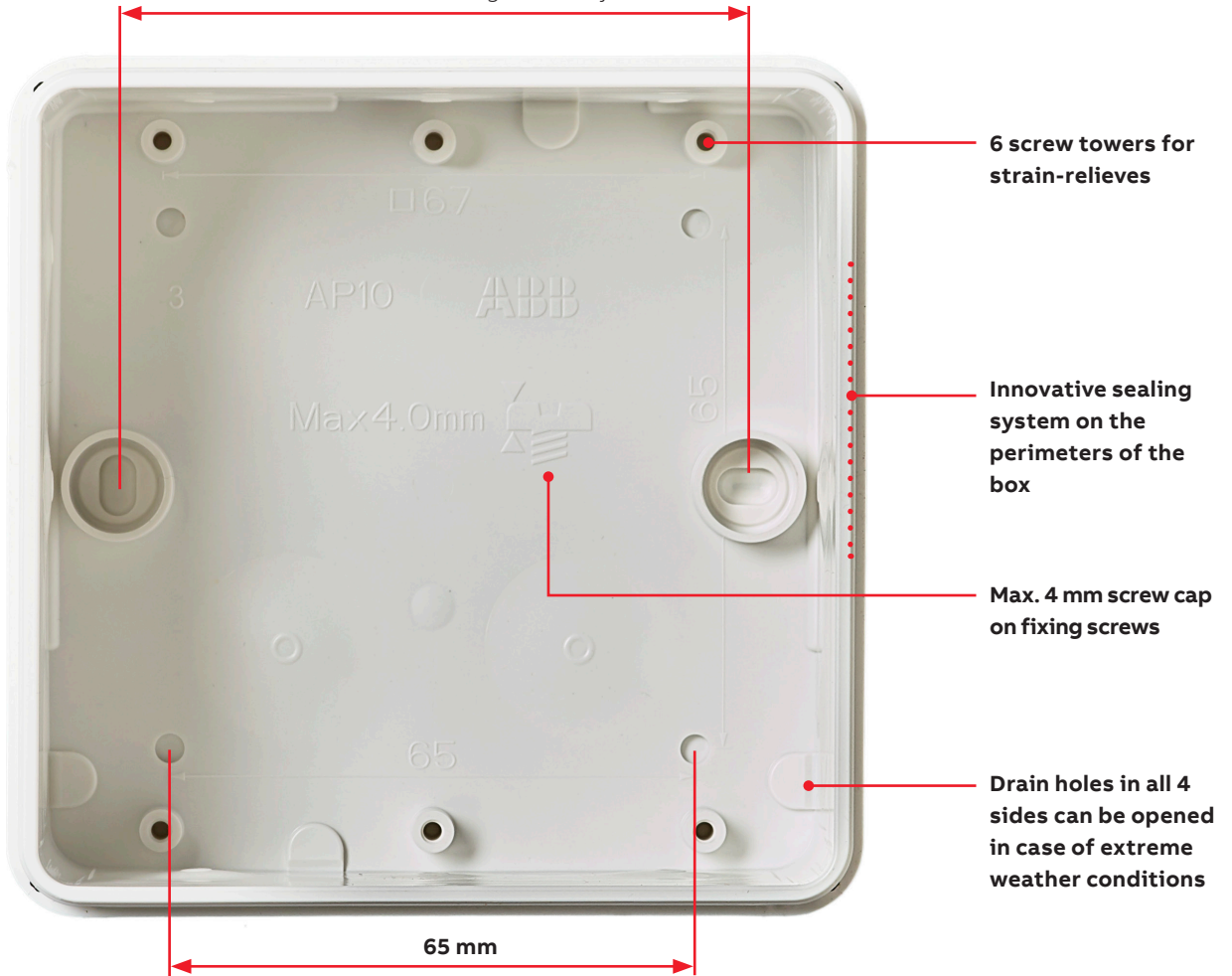
AP10					
	1,5 <sup>2</sup>	2,5 <sup>2</sup>	4 <sup>2</sup>	6 <sup>2</sup>	
Terminals Lättima Klemmen Klemmor	12	10	7	5	
Conductors Joltimia Leiter Ledare	60	40	25	20	
Anzahl der Klemmen	10	8	6	5	
Anzahl der Leiter	30	24	20	15	

PMR2722



**78 mm**

The distance between the mounting screws is 78 mm, which means it can be attached straight onto a junction box.





## Sturdy structure with innovative two component technology

For proper classification

The installation of surface-mounted junction boxes is simple and quick. The two-component boxes include easily perforated knockouts on all sides. Simultaneously, the knockout membranes operate as gaskets.



Open entries with a screwdriver or cable.

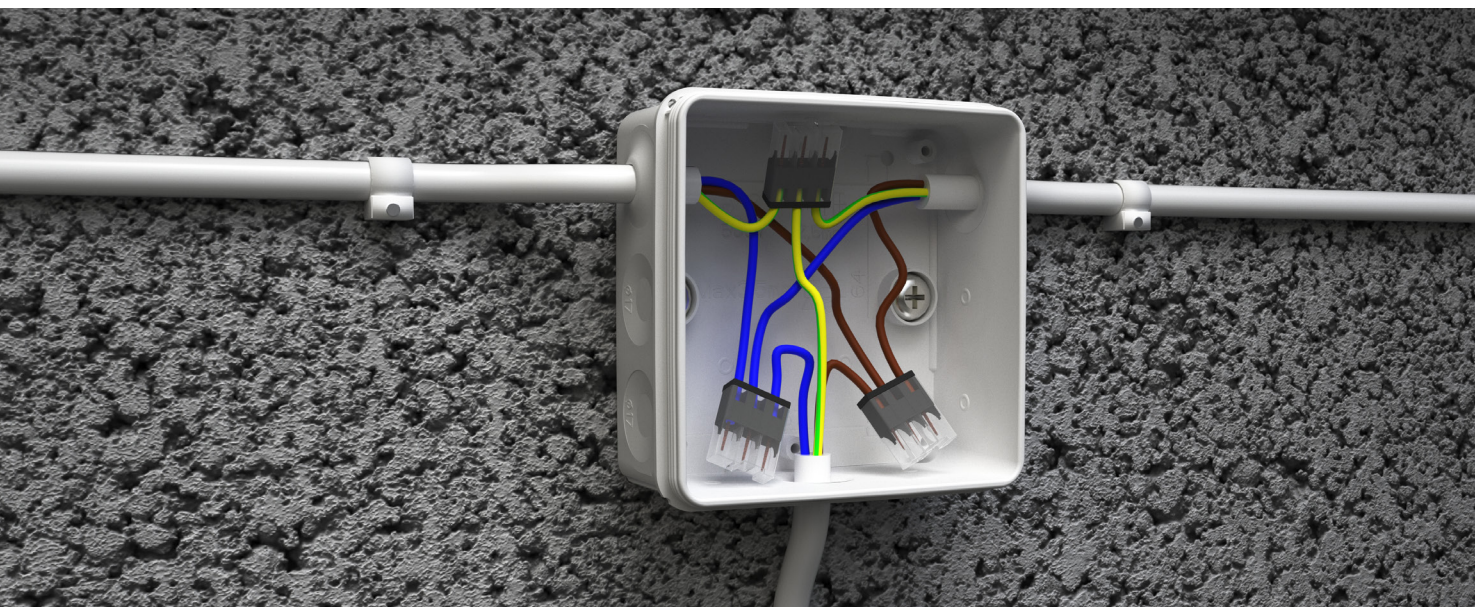


Pull cable into box.





Pull cable back to seal entry. Box enclosure class IP65.



Large space for wires and connectors.



Quick snap-on cover fastening. No screws are needed. The lids can be sealed.

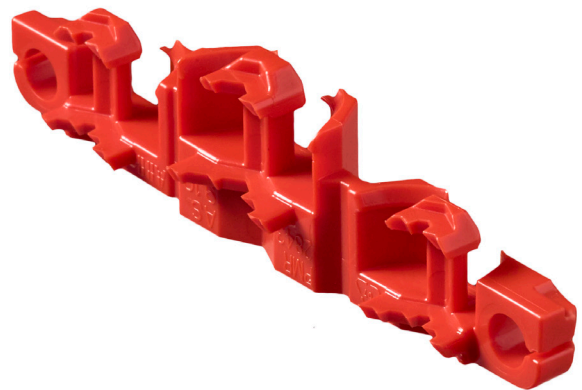


## New Strain-relief AS9.10

### For junction boxes AP9 and AP10

Screwless, faster and cost-effective solution.

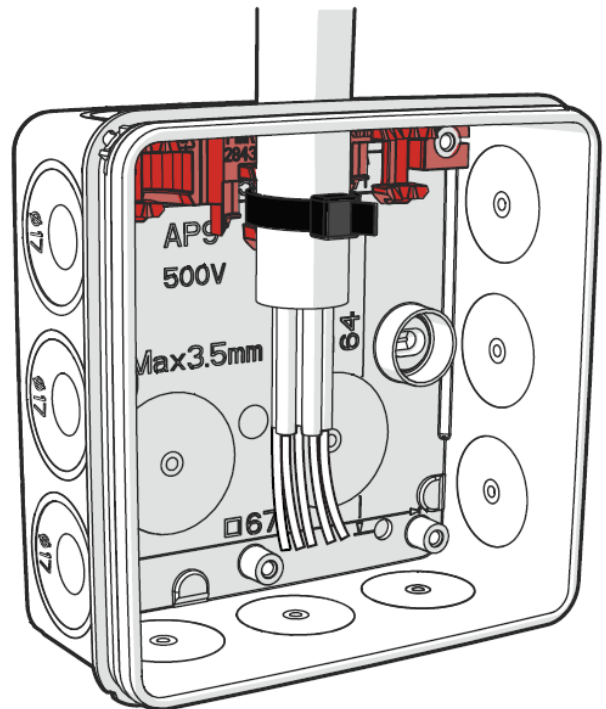
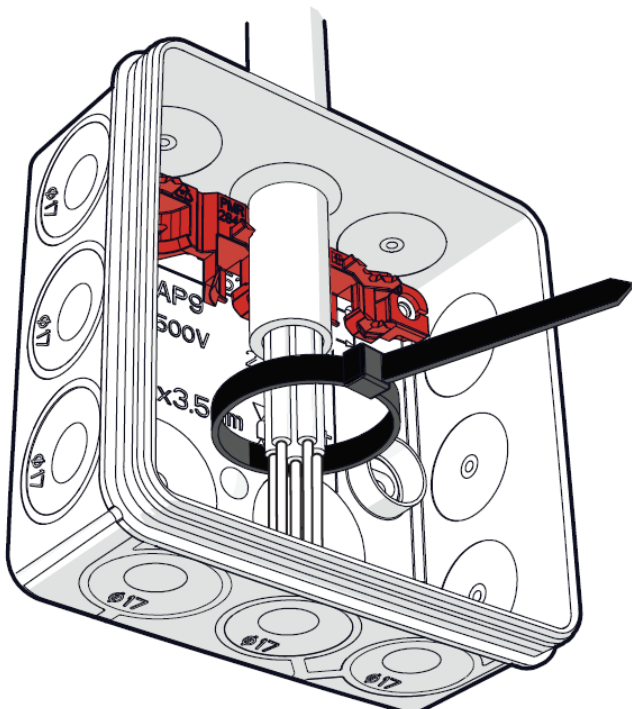
Thanks to this innovative solution, no screws or tools are needed to make a strain-relief for the cable. The cable is secured with a cable tie, making installation easy and saving installation time.



#### Installation

Attach the strain-relief to the junction box, push the cable through the membrane inlet. Attach the cable tie around the cable and strain-relief.

Make sure that the cable tie is secured around the strain-relief before tightening the cable tie. When the cable tie has been tightened and the installation is complete, make sure that the strain-relief is secured by pulling firmly at the cable in an outward direction.

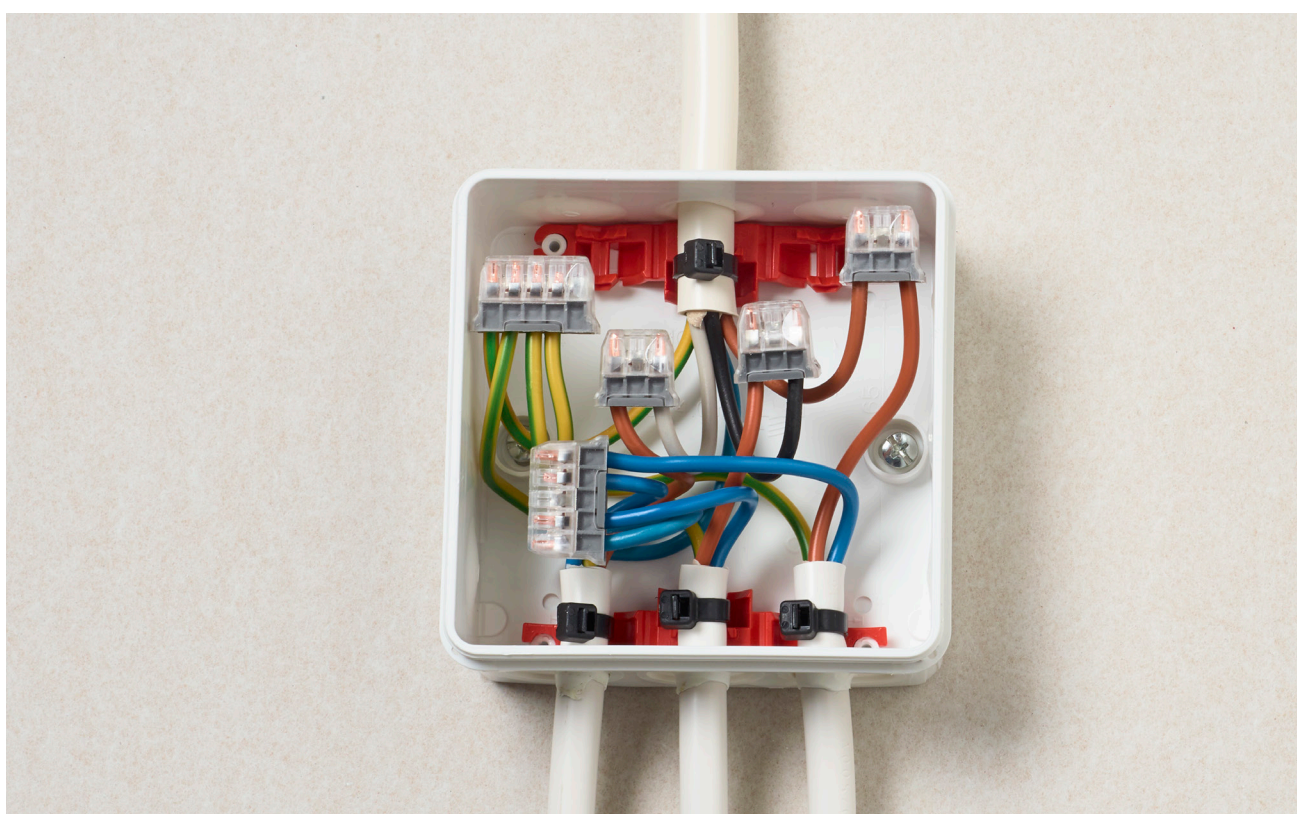
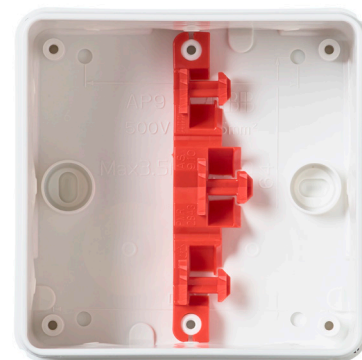
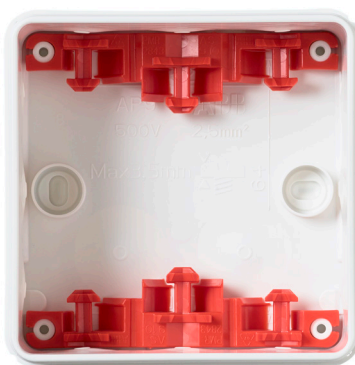


The strain-relief is suitable for junction boxes AP9 and AP10, and has three slots for cables. It can be used with a wide range of cable diameters, as well as with flat thin installation cable.



#### Additional

Two strain-reliefs can be used on the opposite sides of the box with AP9 and AP10, or crosswise in AP9 boxes.





## Surface-mounted junction boxes



### Junction box 86 x 86 mm, IP65

The square junction box AP9 (2.5 mm<sup>2</sup>, 500 V, IP65) is equipped with 12 membrane cable entries (Ø17 mm) in the sides, and two (Ø19 mm) in the bottom. Cables are easy to connect by simply inserting the stripped ends through the inlets. The box locks by snapping and can be opened by inserting a screwdriver into the opening slots - no screws are needed. The box can also be sealed. The box can be furnished with the strain-reliefs AS9.10, AS9, AS9.1 and AS9.3. Fits Ø6-15.5 mm cable. VDE-approved. Mounting temperature is -25... +60 °C. Made of halogen-free material (IEC/61249-2-21).

Type	Colour	EAN	Description	Package
AP9		6410016125095	Surface-mounted junction box, IP65, 86 x 86 mm, white	5/50
AP9/G		6410016125088	Surface-mounted junction box IP65, 86 x 86 mm, grey	5/50
AP9M		6418677329906	Surface-mounted junction box, IP65, 86 x 86 mm, black	5/50
AP9V		6438199003177	Surface-mounted junction box, IP65, 86 x 86 mm, green	5/50
AP9R		6438199003184	Surface-mounted junction box, IP65, 86 x 86 mm, red	5/50
<b>Accessories</b>				
AS9.10		6438199005355	Strain-relief for 3 cables, Ø6-17 mm	10/100

### Junction box 104 x 104 mm, IP65

The square junction box AP10 (6.0 mm<sup>2</sup>, 500 V, IP65) is equipped with 14 membrane cable entries (Ø19 mm), three on each sides, and two in the bottom. Cables are easy to connect by simply inserting the stripped ends through the inlets. The box locks by snapping and can be opened by inserting a screwdriver into the opening slots - no screws are needed. The box can also be sealed. The box can be furnished with the strain-reliefs AS9.10, AS9, AS9.1 and AS9.3. Mounting temperature is -25... +60 °C. Made of halogen-free material (IEC/61249-2-21)

Type	Colour	EAN	Description	Package
AP10		6410016125101	Surface-mounted junction box, IP65, 104 x 104 mm, white	5/30
AP10/G		6418677307287	Surface-mounted junction box, IP65, 104 x 104 mm, grey	5/30
AP10M		6438199008158	Surface-mounted junction box, IP65, 104 x 104 mm, black	5/30
<b>Accessories</b>				
AS9.10		6438199005355	Strain-relief for 3 cables, Ø6-17 mm	10/100

### Strain-relief for 3 cables, Ø 6 – 17 mm

Junction boxes AP9 and AP10 can be furnished with the strain-relief AS9.10 for 3 cables.

AP9: 3x 6 - 17 mm. AP10: 1x 6 - 19 mm (middle) and 2x 6 - 12mm (sides). It can also be used with 3 flexible connecting cables H03VVH2-F 2x0,75. Strain relief is done with help of cable tie (not included). Two strain-reliefs can be used in opposite sides the box with AP9 and AP10, or crosswise in AP9 boxes.

Type	EAN	Description	Package
AS9.10	6438199005355	Strain-relief for 3 cables, Ø6-17 mm	10/100

### Junction box Ø115 mm, IP44

The round junction box AP7 (2.5 mm<sup>2</sup>, 400 V, IP44) is similar to the AP9 and the AP10 is equipped with 10 membrane cable entries (Ø17 mm) at the sides and two in the bottom. Cables are easy to connect by simply inserting the stripped ends through the inlets. The cover is locked with two screws at distance of 78 mm. The box can be furnished with strain-reliefs AS9, AS9.1 and AS9.3. Made of halogen-free material (IEC/61249-2-21).

Type	EAN	Description	Package
AP7	6410016125170	Junction box, IP44, Ø115 mm, white	5/50



#### Strain-relief and connector

The junction boxes AP7, AP9 and AP10 can be furnished with the strain-relief AS9 for Ø 6 - 19 mm cables. The strain-relief AS9 has a 5-pole connector (2,5 mm<sup>2</sup>). The maximum wire capacity per connector is 4 x 2,5 mm<sup>2</sup> or 6 x 1,5 mm<sup>2</sup>.



Type	EAN	Description	Package
AS9	6410016125903	Strain-relief and connector, for 1 cable, Ø 6 – 19 mm	1 / 50

#### Strain-reliefs

The junction boxes AP7, AP9 and AP10 can be furnished with the strain-relief AS9.3 for three cables Ø 6-13,5 mm or the strain-relief AS9.1 for one cable Ø 10,5-20 mm.



Type	EAN	Description	Package
AS9.1	6410016125927	Strain-relief for 1 cable, Ø 10,5 – 20 mm	1 / 50
AS9.3	6410016125910	Strain-relief for 3 cables, Ø 6 – 13,5 mm	1 / 50

#### Junction box Ø115 mm, with connection cover, IP44

The round, dual-component connection box AP7.1 (2.5 mm<sup>2</sup>, 400 V, IP44) is equipped with 10 membrane cable entries (17 mm) and two in the bottom. The cover of the box is equipped with three membrane seals (one Ø20 mm and two Ø16 mm) and with three strain-reliefs.



Type	EAN	Description	Package
AP7.1	6410016125187	Junction box with connection cover, IP44, Ø115 mm, white	50

#### Surface-mounted junction box 75 x 75 mm, IP65

The AP75 junction box (2.5 mm<sup>2</sup>, 400 V, IP65) is equipped with fixed, two-component membrane lid cable entries, 10 in the sides and three on the bottom. It has a stiff frame. Suitable for cables up to Ø18. The locks box by snapping and can be opened by inserting a screwdriver into the opening slots. Pull-out brackets make it possible to mount it to a conductive base. The box can also be sealed. Mounting temperature -15... +60 °C. Made of halogen-free material (IEC/61249-2-21).



Type	EAN	Description	Package
AP75	6410016125200	Surface-mounted junction box, white 75 x 75 mm	5/50
<b>Accessory</b>			
AS12.3	6410016125217	Strain relief, Ø8 - 12, for junction box AP75	10/250

#### Junction box 60 x 60 mm, IP20

The box is equipped with an insulated 5-way connector. The maximum wire size per connector is 4 x 2.5 mm<sup>2</sup> or 6 x 1.5 mm<sup>2</sup>. The box has 6 knock-outs at the side and 2 in the bottom. Made of halogen-free material (IEC/61249-2-21).



Type	EAN	Description	Package
AP6	6410016020062	Junction box IP20, white, 60 x 60 mm	10/100
AP6.2	6418677308055	Junction box, grey, 60 x 60 mm, incl. connector	10/100

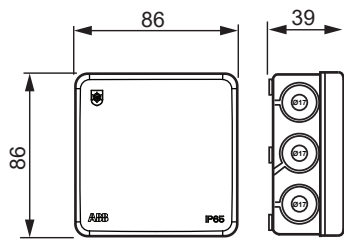
#### Junction box 59 x 79 mm, IP20

The AP12 junction box has two 3-pole insulated 6 mm<sup>2</sup> connectors. The base plate offers a choice of eight different connection points for the connectors. There are three knock-outs in the bottom of the box. The cover has knock-outs in the corners and on the long sides of the cover. The maximum wire capacity per connector is 8 x 1.5 mm<sup>2</sup> or 5 x 2.5 mm<sup>2</sup>.

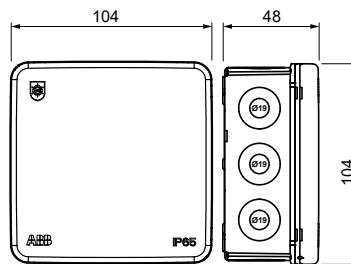


Type	EAN	Description	Package
AP12	6410016020123	Junction box IP20, 59 x 79 mm,	10/50
AP12.1	6418677301452	Junction box IP20, 59 x 79 mm, without connectors	10/50

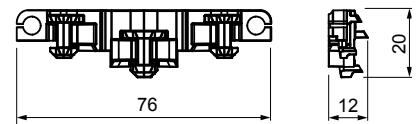
## Dimensional drawings



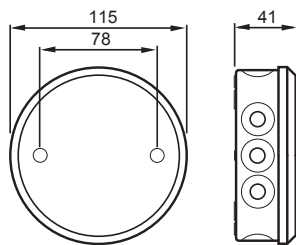
AP9



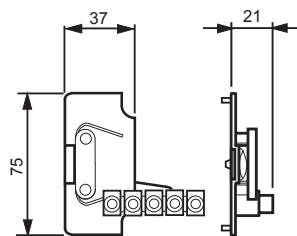
AP10



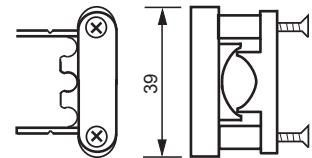
AS9.10



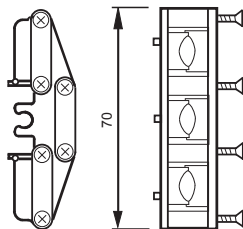
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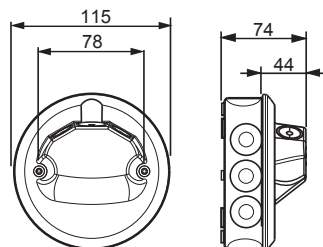
AS9



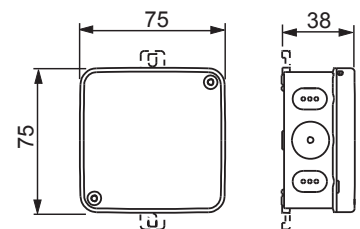
AS9.1



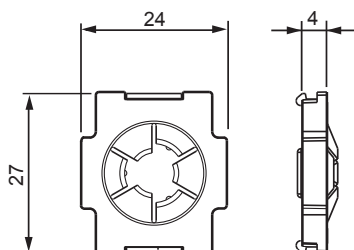
AS9.3



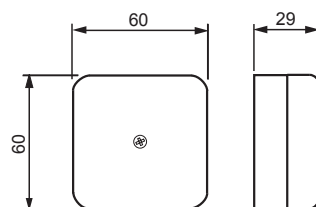
AP7.1



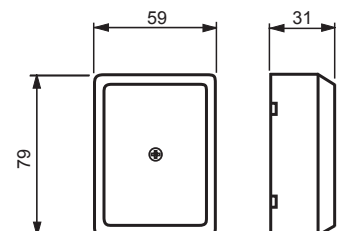
AP75



AS12.3



AP6



AP12 and AP12.1







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