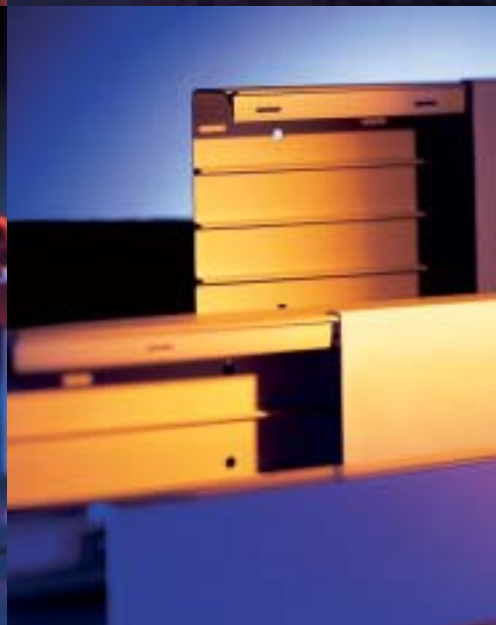


# Halogen-free components

Greater safety in fires



# Halogen-free components

## VBS. Connection systems

Thermoplastic junction boxes

Duroplast junction boxes

Screwless terminals

V-TEC cable glands

V-TEC EX cable glands

Conical cable glands

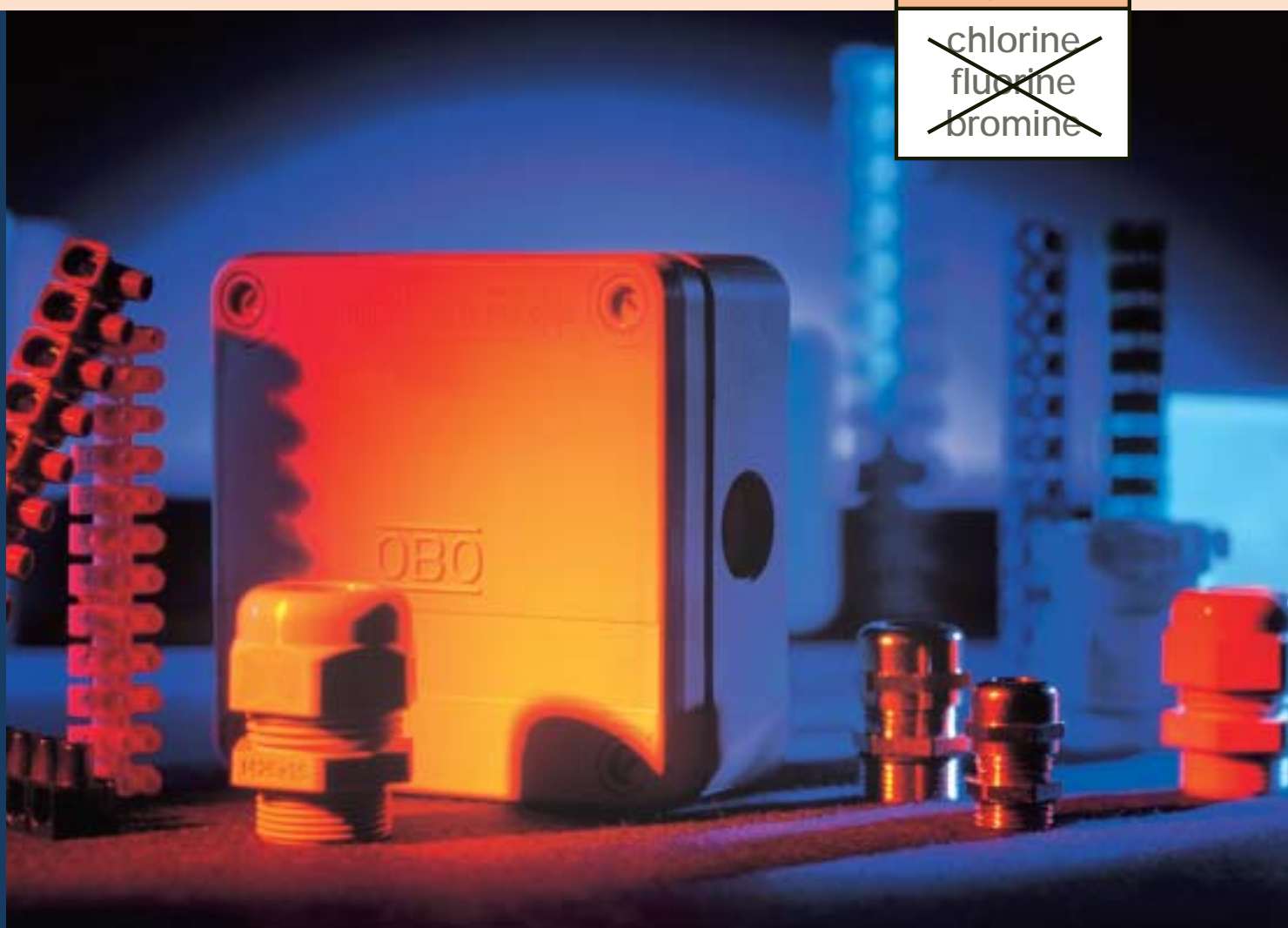
Reducers

Enlarging adapters

Threaded nipples

halogen-free

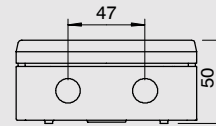
~~chlorine  
fluorine  
bromine~~



**Water-proof junction boxes**



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
<b>B9/T w. VBX/KL60</b>	l. grey	40	5	17.500	<b>2001802</b>
<b>B9/T empty</b>	l. grey	40	5	13.000	<b>2001810</b>
<b>B9/T NL</b>	l. grey	40	5	17.000	<b>2001829</b>
<b>B9/T RED</b>	red	40	5	13.000	<b>2001837</b>



**B9/T...:** Comprises 2 halogen-free plastics components, 8 threaded entries (Pg 16) with push-through membrane (for cable diameter up to 15 mm) including one in base. Where cable glands are used (giving additional strain relief) there is no need to remove the membrane (this saves time). Protection IP 67 with push-through membrane

Protection IP 67 with cable gland without removal of the push-through membrane  
Rated voltage 400 V; nominal cross-section 4-6 mm<sup>2</sup>  
The lid is secured with 4 pre-fitted rapid fixings (180°). The fixing holes are additionally moulded with a soft plastics component for screw ø 5 mm (spacing 75 mm).  
Clear internal dimensions: 98 x 98 x 40

**B9/T with VBX/KL 60**

2 fixing screw caps,  
1 terminal strip VBX/KL 60 and 1 blanking plug

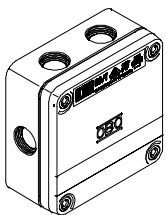
**B9/T empty and B9/T RED**

2 fixing screw caps and 1 blanking plug

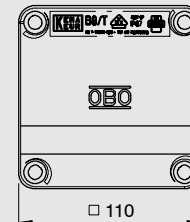
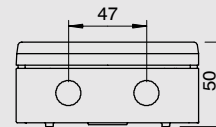
**B9/T NL**

2 fixing screw caps,  
1 blanking plug and 3 cable glands V-TEC/KA Pg 16

**PP** Polypropylene, light grey (RAL 7035)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
<b>B9/T M w. VBX/KL60</b>	l. grey	40	5	17.500	<b>2001845</b>
<b>B9/T M empty</b>	l. grey	40	5	13.000	<b>2001853</b>
<b>B9/T M NL</b>	l. grey	40	5	17.000	<b>2001861</b>
<b>B9/T M RED</b>	red	40	5	13.000	<b>2001888</b>



**B9/T M...:** Comprises 2 halogen-free plastics components, 8 threaded entries (M20 x 1.5) with push-through membrane (for cable diameter up to 15 mm) including one in base.

Where cable glands are used (giving additional strain relief) there is no need to remove the membrane (this saves time). Protection IP 67 with push-through membrane

Protection IP 67 with cable gland without removal of the push-through membrane

Rated voltage 400 V; nominal cross-section 4-6 mm<sup>2</sup>  
The lid is secured with 4 pre-fitted rapid fixings (180°). The fixing holes are additionally moulded with a soft plastics component for screw ø 5 mm (spacing 75 mm).  
Clear internal dimensions: 98 x 98 x 40

Clear internal dimensions: 98 x 98 x 40

**B9/T M with VBX/KL 60**

2 fixing screw caps,  
1 terminal strip VBX/KL 60 and 1 blanking plug

**B9/T M empty and B9/T RED**

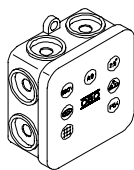
2 fixing screw caps and 1 blanking plug

**B9/T M NL**

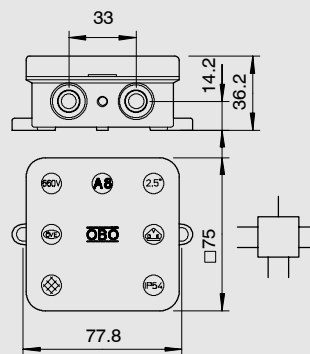
2 fixing screw caps,  
1 blanking plug and 3 cable glands V-TEC/KA M20 x 1.5

**PP** Polypropylene, light grey (RAL 7035)

## Damp-proof junction boxes



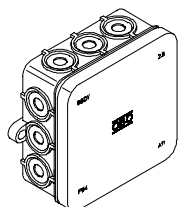
Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
A 8/HF	nat. white	150	10	5.140	2000075
A 8/HF RT	red	100	10	5.140	2000059



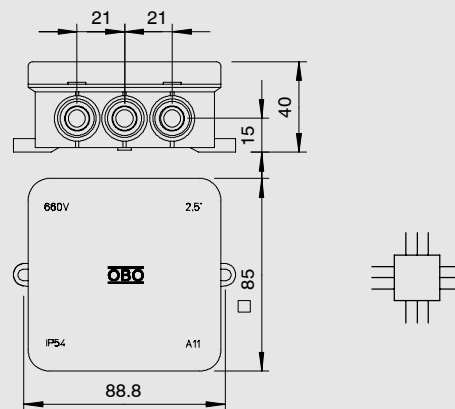
**A 8/...**: Protection IP 54, rated voltage 660 V, nominal cross-section 2.5 mm<sup>2</sup>  
7 entries for cable diameter 8–14 mm  
Snap-fit lid  
Clear internal dimensions: 65 x 65 x 32

**A8/HF: Halogen-free material**, without terminal strip

**PP** Polypropylene



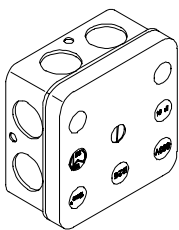
Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
A 11/HF	nat. white	80	10	6.200	2000180
A 11/HF RT	red	80	10	6.200	2000164



**A11/HF: Halogen-free material**, without terminal strip  
Protection IP 54, rated voltage 660 V, nominal cross-section 2.5 mm<sup>2</sup>  
12 entries for cable diameter 8–14 mm  
Snap-fit lid  
Clear internal dimensions: 75 x 75 x 35

**PP** Polypropylene

**OBO-DAB damp-proof junction boxes**



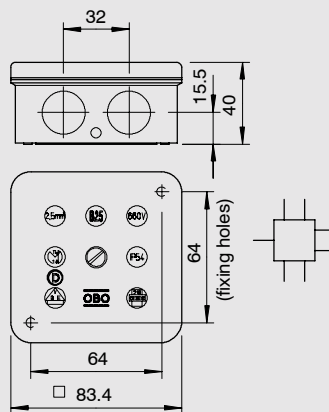
(M)



(D)



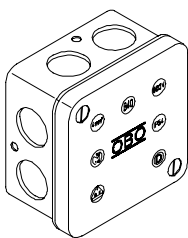
Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 25 M VDE</b>	l. grey	80	5	13.100	<b>2001128</b>
<b>B 25 M VDE empty</b>	l. grey	80	5	10.400	<b>2001136</b>



**B 25 M VDE:** With five-pole terminal strip KL 25 of melamine with socket terminals for max. four 2.5 mm<sup>2</sup> conductors per terminal

**B 25 M VDE empty:** Without terminal strip

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



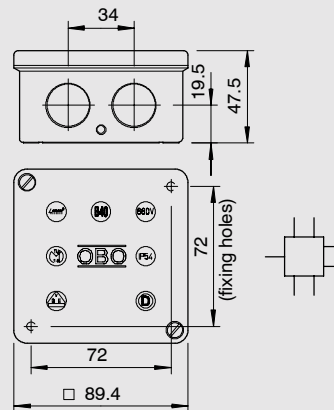
(M)



(D)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 40 M VDE</b>	l. grey	80	5	16.500	<b>2001160</b>
<b>B 40 M VDE empty</b>	l. grey	80	5	12.000	<b>2001179</b>



**B 40 M VDE ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 4 mm<sup>2</sup>

2 fixing holes for screws up to 4.5 mm diameter.

Fixing thread M 6 and adhesive surface on the base.

2 lid screws,

7 breakout entries Ø 20.5 mm (M 20),

with 4 push-in seals EDVS 20 for cable diameters 7.5-15 mm

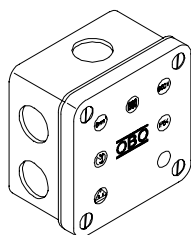
Clear internal dimensions: 78 x 78 x 43

**B 40 M VDE:** With five-pole terminal strip KL 60 of melamine with clamp terminals for max. four 4 mm<sup>2</sup> conductors per terminal

**B 40 M VDE empty:** Without terminal strip

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite

## OBO-DAB damp-proof junction boxes



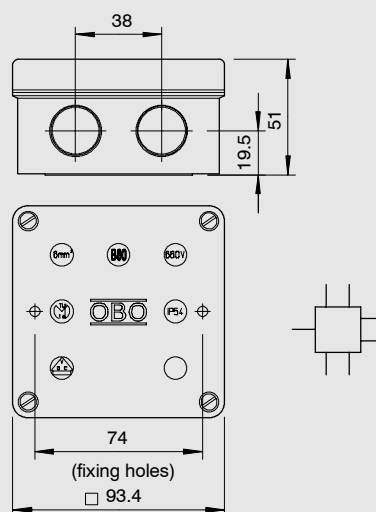
(M)



(D)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 60 M VDE</b>	l. grey	80	5	18.350	<b>2001209</b>
<b>B 60 M VDE empty</b>	l. grey	80	5	14.700	<b>2001217</b>

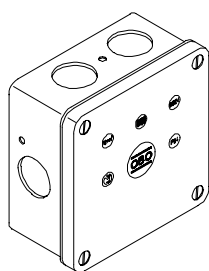


**B 60 M VDE ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 6 mm<sup>2</sup>  
 2 fixing holes for screws up to 4.5 mm diameter (seals and covers supplied).  
 Fixing thread M 6 and adhesive surface on the base  
 4 lid screws,  
 7 breakout entries Ø 20.5 mm (M 20),  
 with 4 push-in seals EDVS 20 for cable diameters 7.5-15 mm  
 Clear internal dimensions: 83 x 83 x 47

**B 60 M VDE:** With five-pole terminal strip KL 60 of melamine with clamp terminals for max. three 6 mm<sup>2</sup> conductors per terminal

**B 60 M VDE empty:** Without terminal strip

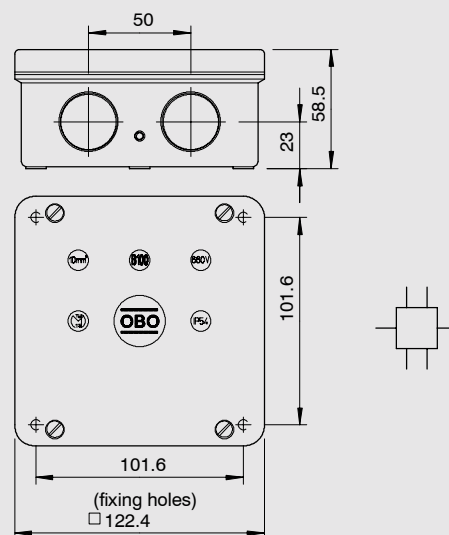
**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



(M)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 100 M</b>	l. grey	30	5	38.000	<b>2001241</b>
<b>B 100 M empty</b>	l. grey	30	5	31.000	<b>2001268</b>



**B 100 M ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 10 mm<sup>2</sup>  
 4 fixing holes for screws up to 5 mm diameter.  
 4 lid screws, sealable with sealing caps supplied,  
 6 breakout entries Ø 25.5 mm (M 25),  
 with 4 push-in seals EDVS 25 for cable diameters 7.5-22 mm  
 Clear internal dimensions: 108 x 108 x 51

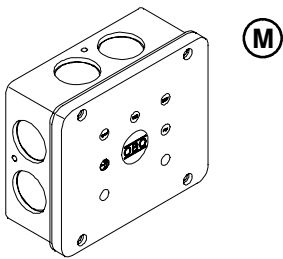
**B 100 M:** With five-pole terminal strip KL 100 of melamine with clamp terminals for max. three 10 mm<sup>2</sup> conductors per terminal

**B 100 M empty:** Without terminal strip

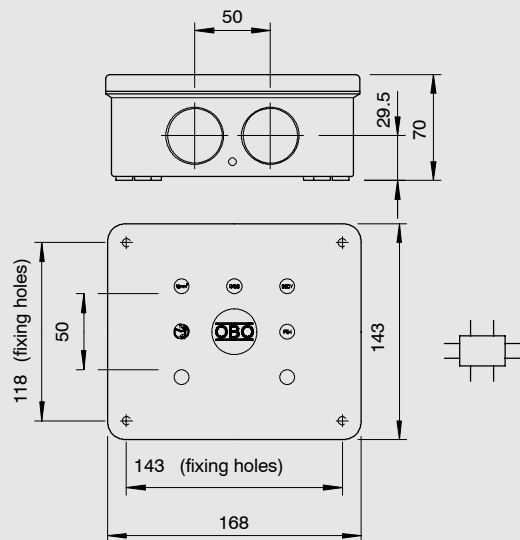
**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



**OBO-DAB damp-proof junction boxes**



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 160 M</b>	l. grey	10	1	70.000	<b>2001292</b>
<b>B 160 M empty</b>	l. grey	10	1	55.000	<b>2001306</b>

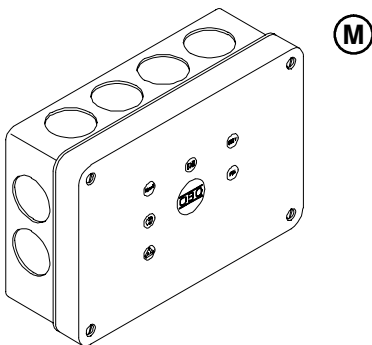


**B 160 M ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 16 mm<sup>2</sup>  
 4 fixing holes for screws up to 5.5 mm diameter.  
 4 lid screws, sealable with sealing caps supplied,  
 8 breakout entries Ø 32.5 mm (M 32),  
 with 4 push-in seals EDVS 32 for cable diameters 12-30 mm  
 Clear internal dimensions: 150 x 125 x 61

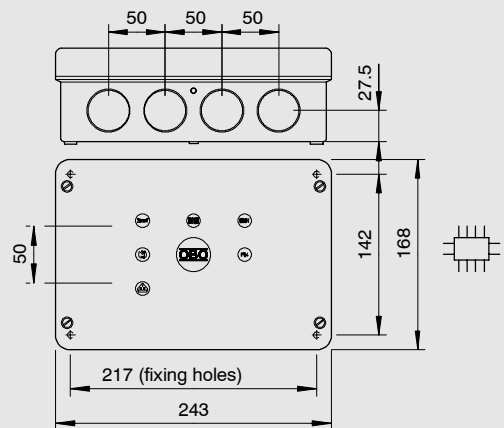
**B 160 M:** With five-pole terminal strip KL 160 of melamine with clamp terminals for max. three 16 mm<sup>2</sup> conductors per terminal

**B 160 M empty:** Without terminal strip

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 250 M</b>	l. grey	8	1	148.000	<b>2001330</b>
<b>B 250 M empty</b>	l. grey	8	1	85.000	<b>2001349</b>



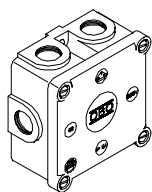
**B 250 M ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 25 mm<sup>2</sup>  
 4 fixing holes for screws up to 5.5 mm diameter.  
 4 lid screws, sealable with sealing caps supplied,  
 12 breakout entries Ø 32.5 mm (M 32),  
 with 4 push-in seals EDVS 32 for cable diameters 12-30 mm  
 Clear internal dimensions: 224 x 149 x 75

**B 250 M:** With five-pole terminal strip KL 250 of melamine with double-clamp terminals for max. six 25 mm<sup>2</sup> conductors per double terminal

**B 250 M empty:** Without terminal strip

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite

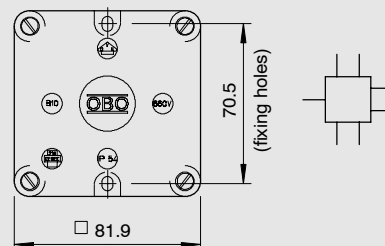
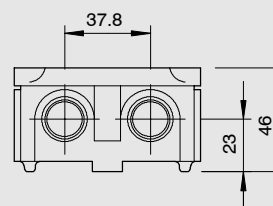
## Damp-proof junction boxes



M



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 9 B M/4 VDE</b>	l. grey	80	5	16.000	<b>2001616</b>
<b>B 9 B M VDE empty</b>	l. grey	80	5	9.960	<b>2001632</b>

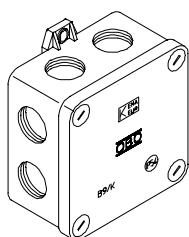


**B 9 B M ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 2.5 mm<sup>2</sup>  
 2 fixing holes for screws up to 5 mm diameter on the outside of the box  
 4 lid screws, 7 breakout entries with M 20 x 1.5 thread, primarily for cable glands with short connecting thread  
 Clear internal dimensions: 73 x 35

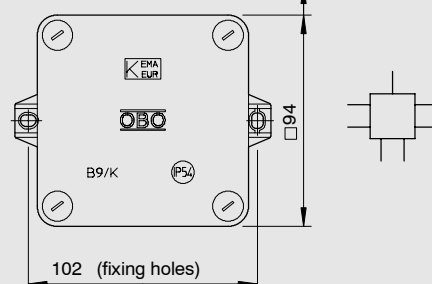
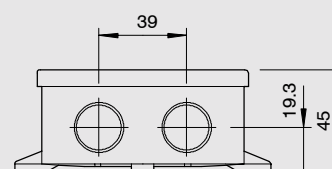
**B 9 B M/4 VDE:** With five-pole terminal block 700/4 BM of melamine for max. four 2.5 mm<sup>2</sup> conductors per terminal

**B 9 B M VDE empty:** Without terminal block

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



Type	Colour	Pack qty	Weight kg/100	Ord. no. UF
<b>B 9/K empty</b>	l. grey	5	13.500	<b>2001934</b>

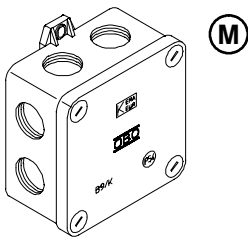


**B 9 K ...:** Protection IP 67  
 Empty box to be used with single terminals  
 4 lid screws of plastics, so fully corrosion-proof  
 2 fixing lugs for screws up to 5 mm diameter  
 7 breakout entries with Pg 16 thread  
 With 3 cable glands of polyamide for cable diameters of 10-14 mm type 106/16 B9K  
 The cable glands have a specially-shaped thread which automatically breaks out the entry when the gland is screwed in.  
 Clear internal dimensions: 84 x 84 x 34

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



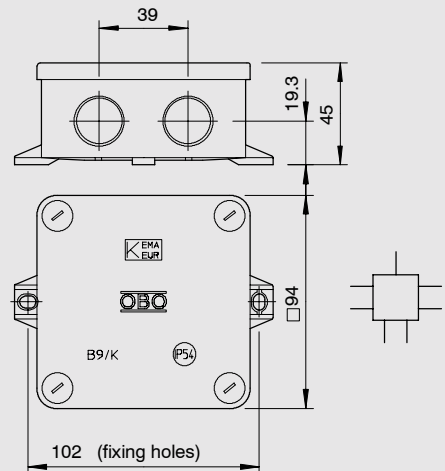
## Damp-proof junction boxes



(M)



Type	Colour	Pack qty	Weight kg/100	Ord. no. UF
<b>B 9/K M empty</b>	l. grey	5	13.500	<b>2001942</b>



### B 9 K M ...: Protection IP 67

Empty box to be used with single terminals

4 lid screws of plastics, so fully corrosion-proof

2 fixing lugs for screws up to 5 mm diameter

7 breakout entries with M 20 x 1.5 thread

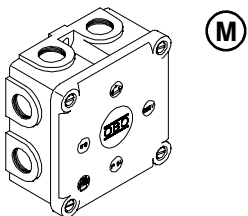
With 3 cable glands of polyamide for cable diameters of 9-12 mm

type 106/20 B9K M

The cable glands have a specially-shaped thread which automatically breaks out the entry when the gland is screwed in.

Clear internal dimensions: 84 x 84 x 34

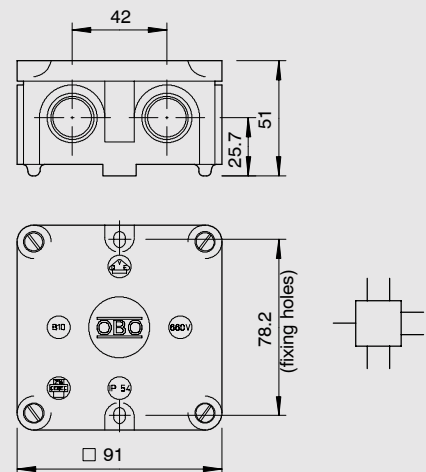
**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



(M)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 10/4 M VDE</b>	l. grey	80	5	22.480	<b>2002140</b>
<b>B 10 M VDE empty</b>	l. grey	80	5	17.360	<b>2002167</b>



### B 10 M ...: Protection IP 54, rated voltage 660 V,

nominal cross-section 2.5 and 4 mm<sup>2</sup>

In combination with terminal block 700/6 M, the box has a nominal cross-section of 4 mm<sup>2</sup>

2 fixing holes for screws up to 5 mm diameter on the outside of the box

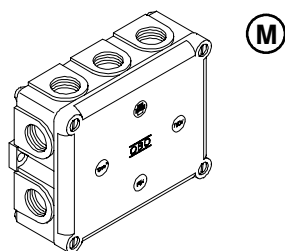
4 lid screws, 7 breakout entries with M 20 x 1.5 thread, primarily for cable glands with short connecting thread

Clear internal dimensions: 80 x 80 x 39

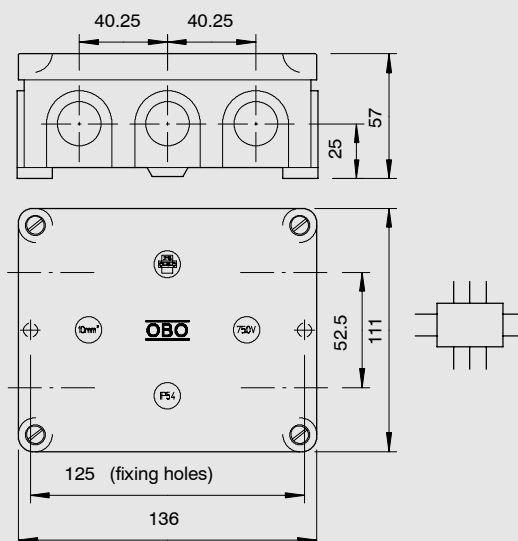
**B 10/4 M VDE:** With five-pole terminal block 700/4 BM of melamine for max. four 2.5 mm<sup>2</sup> conductors per terminal

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite

## Damp-proof junction boxes



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 11 /LM</b>	l. grey	24	1	39.700	<b>2002329</b>
<b>B 11 M empty</b>	l. grey	24	1	32.200	<b>2002345</b>

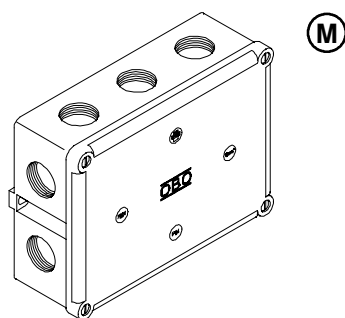


**B 11 M:** Protection IP 54, rated voltage 660 V, nominal cross-section 10 mm<sup>2</sup>  
 2 fixing holes for screws up to 6 mm diameter on the outside of the box  
 4 lid screws, 10 breakout entries with M 20 x 1.5 thread, primarily for cable glands with short connecting thread  
 Clear internal dimensions: 125 x 100 x 44

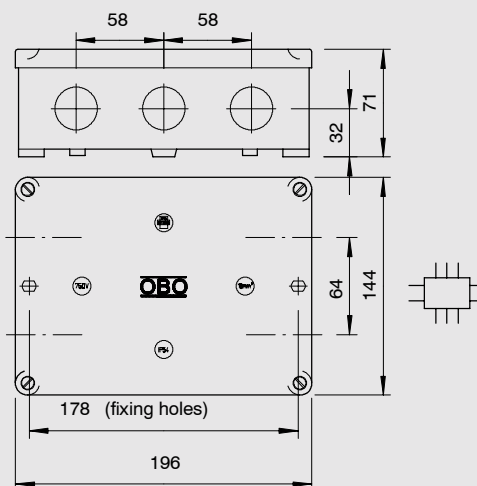
**B 11 M/L:** With five-pole terminal strip KL 100, with clamp terminals for max. three 10 mm<sup>2</sup> conductors per terminal

**B 11 M empty:** Without terminal block

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>B 12/16 M</b>	l. grey	12	1	96.700	<b>2002507</b>
<b>B 12 M empty</b>	l. grey	12	1	65.500	<b>2002523</b>



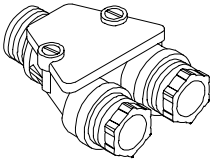
**B 12 M ...:** Protection IP 54, rated voltage 660 V, nominal cross-section 16 mm<sup>2</sup>  
 2 fixing holes for screws up to 6 mm diameter on the outside of the box  
 4 lid screws, 10 breakout entries with thread M 25 x 1.5  
 Clear internal dimensions: 126 x 178 x 57

**B 12/16 M:** With five-pole terminal strip KL 160 of melamine, with clamp terminals for max. three 16 mm<sup>2</sup> conductors per terminal

**B 12 M empty:** Without terminal strip

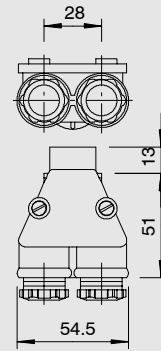
**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite

## Bifurcated cable glands



Type	Nom. sizes	Colour	Pack qty	Weight kg/100	Ord. no. UF
<b>113/13.5</b>	Pg 13.5	l. grey	5	4.672	<b>2024136</b>
<b>113/16</b>	Pg 16	l. grey	5	4.356	<b>2024160</b>

With 2 half-glands Pg 13.5



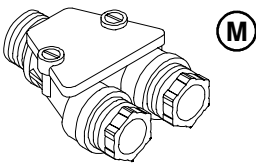
**113/...:** Protection IP 54

With removable lid of polystyrene, and 2 thread entry seals of polyethylene

**113/13.5:** With Pg 13.5 connecting thread, 2 half-glands Pg 13.5 for cable Ø 6.5-10.5 mm

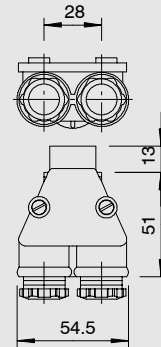
**113/16:** With Pg 16 connecting thread, 2 half-glands Pg 13.5 for cable Ø 6.5-10.5 mm

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



Type	Nom. sizes	Colour	Pack qty	Weight kg/100	Ord. no. UF
<b>113/M 20</b>	M20x1.5	l. grey	5	4.672	<b>2024063</b>

With 2 half-glands Pg 13.5



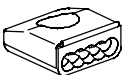
**113/M ...:** Protection IP 54

With removable lid of polystyrene, and 2 thread entry seals of polyethylene

**113/M 20:** With M 20 x 1.5 connecting thread, 2 half-glands Pg 13.5 for cable Ø 6.5-10.5 mm

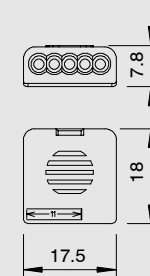
**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite

## OBO screwless terminals



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
<b>61/515</b>	anthracite	6000	100	0.220	<b>2054620</b>

Cross-section range 0.75-1.5 mm<sup>2</sup>



**61/515:** Screwless terminal to connect single-strand wires

Nominal cross-section 1.5 mm<sup>2</sup>

Rated voltage 450 V

Rated current 17.5 A

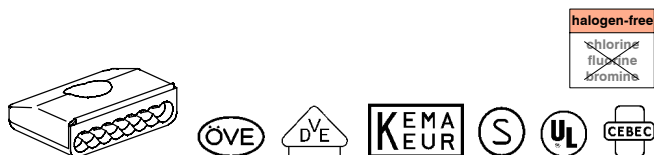
Connectable cross-section range 0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>

To connect 5 wires 0.75 to 1.5 mm<sup>2</sup>

Stripping length 10 mm

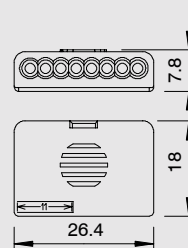
**PA** Polyamide, anthracite (RAL 9005)

## OBO screwless terminals



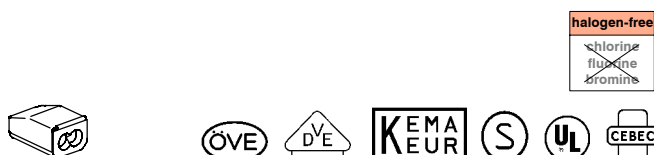
Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
61/815	anthracite	3000	50	0.340	2054647

Cross-section range 0.75-1.5 mm<sup>2</sup>



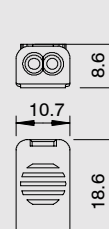
**61/815:** Screwless terminal to connect single-strand wires  
 Nominal cross-section 1.5 mm<sup>2</sup>  
 Rated voltage 450 V, rated current 17.5 A  
 Connectable cross-section range 0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>  
 To connect 8 wires 0.75 to 1.5 mm<sup>2</sup>  
 Stripping length 10 mm

**PA** Polyamide, anthracite (RAL 9005)



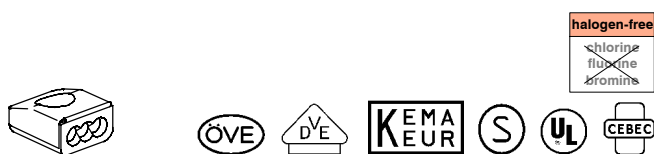
Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
61/225	l. grey	6000	100	0.150	2054604

Cross-section range 1-2.5 mm<sup>2</sup>



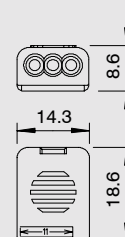
**61/225:** Screwless terminal to connect single-strand wires  
 Nominal cross-section 2.5 mm<sup>2</sup>  
 Rated voltage 450 V, rated current 24 A  
 Connectable cross-section range 1 mm<sup>2</sup> to 2.5 mm<sup>2</sup>  
 To connect 2 wires 1 to 2.5 mm<sup>2</sup>  
 Stripping length 10 mm

**PA** Polyamide, light grey (RAL 7035)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
61/325	l. grey	2000	100	0.250	2054485

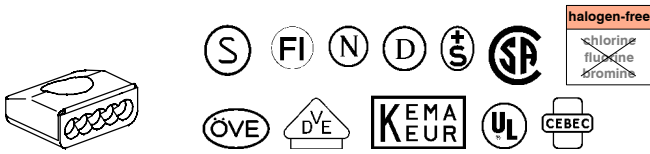
Cross-section range 1-2.5 mm<sup>2</sup>



**61/325:** Screwless terminal to connect single-strand wires  
 Nominal cross-section 2.5 mm<sup>2</sup>  
 Rated voltage 450 V, rated current 24 A  
 Connectable cross-section range 1 mm<sup>2</sup> to 2.5 mm<sup>2</sup>  
 To connect 3 wires 1 to 2.5 mm<sup>2</sup>  
 Stripping length 10 mm

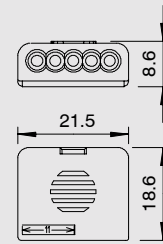
**PA** Polyamide, light grey (RAL 7035)

**OBO screwless terminals**



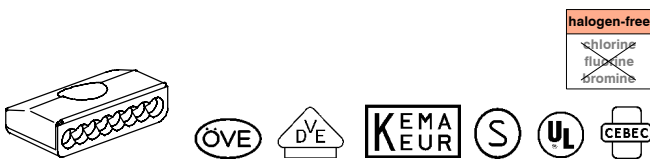
Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
<b>61/525</b>	l. grey	2000	100	0.300	<b>2054507</b>

Cross-section range 1-2.5 mm<sup>2</sup>



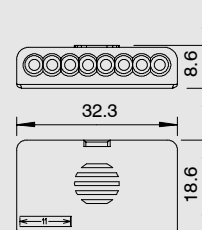
**61/525:** Screwless terminal to connect single-strand wires  
 Nominal cross-section 2.5 mm<sup>2</sup>  
 Rated voltage 450 V, rated current 24 A  
 Connectable cross-section range 1 mm<sup>2</sup> to 2.5 mm<sup>2</sup>  
 To connect 5 wires 1 to 2.5 mm<sup>2</sup>  
 Stripping length 10 mm

**PA** Polyamide, light grey (RAL 7035)



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
<b>61/825</b>	l. grey	3000	50	0.490	<b>2054523</b>

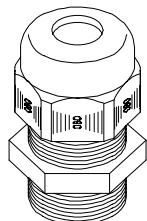
Cross-section range 1-2.5 mm<sup>2</sup>



**61/825:** Screwless terminal to connect single-strand wires  
 Nominal cross-section 2.5 mm<sup>2</sup>  
 Rated voltage 450 V, rated current 24 A  
 Connectable cross-section range 1 mm<sup>2</sup> to 2.5 mm<sup>2</sup>  
 To connect 8 wires 1 to 2.5 mm<sup>2</sup>  
 Stripping length 10 mm

**PA** Polyamide, light grey (RAL 7035)

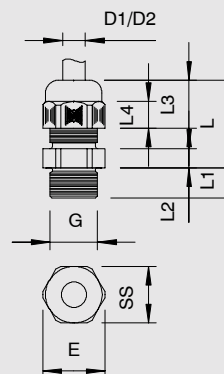
## OBO V-TEC cable glands



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC	Pg 7	silver-grey	50	0.410	2022605
V-TEC	Pg 9	silver-grey	50	0.630	2022613
V-TEC	Pg 11	silver-grey	50	0.890	2022621
V-TEC	Pg 13.5	silver-grey	50	1.020	2022648
V-TEC	Pg 16	silver-grey	25	1.380	2022656
V-TEC	Pg 21	silver-grey	25	2.290	2022664
V-TEC	Pg 29	silver-grey	20	4.020	2022672
V-TEC	Pg 36	silver-grey	10	6.030	2022680
V-TEC	Pg 42	silver-grey	5	7.650	2022699
V-TEC	Pg 48	silver-grey	5	9.460	2022702

Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC	Pg 7	l. grey	50	0.410	2024705
V-TEC	Pg 9	l. grey	50	0.630	2024713
V-TEC	Pg 11	l. grey	50	0.890	2024721
V-TEC	Pg 13.5	l. grey	50	1.020	2024748
V-TEC	Pg 16	l. grey	25	1.380	2024756
V-TEC	Pg 21	l. grey	25	2.290	2024764
V-TEC	Pg 29	l. grey	20	4.020	2024772
V-TEC	Pg 36	l. grey	10	6.030	2024780
V-TEC	Pg 42	l. grey	5	7.650	2024799
V-TEC	Pg 48	l. grey	5	9.460	2024802

Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC	Pg 7	black	50	0.410	2024519
V-TEC	Pg 9	black	50	0.630	2024535
V-TEC	Pg 11	black	50	0.890	2024543
V-TEC	Pg 13.5	black	50	1.020	2024551
V-TEC	Pg 16	black	25	1.380	2024578
V-TEC	Pg 21	black	25	2.290	2024586
V-TEC	Pg 29	black	20	4.020	2024594
V-TEC	Pg 36	black	10	6.030	2024608
V-TEC	Pg 42	black	5	7.650	2024616
V-TEC	Pg 48	black	5	9.460	2024624



Nom. size G	Sealing range D1 mm	Strain rel. and twist protection D2 mm	Hexagon		L min. ca	L max. ca	L1 mm	L2 mm	L3 mm	L4 mm
			SS	E						
Pg 7	2.5- 6.5	3 - 6.5	15	16.5	18	23	8	5	12.6	7
Pg 9	2.5- 8	3.5- 8	19	21	21	27	8	5	15.5	9
Pg 11	3.5-10	4.5-10	22	25	22	29	8	5	17	10
Pg 13.5	5 -12	6 -12	24	27	23	30	9	5	18	10.5
Pg 16	7 -14	7 -14	27	30	25	33	10	6	19	11
Pg 21	9 -18	12 -18	33	37.5	28	38	11	6	22	12.5
Pg 29	14 -25	17 -25	42	47.5	32	43	11	7	24.5	14
Pg 36	18 -32	20 -32	53	60	39	54	13	8	31	18
Pg 42	24 -38	26 -38	60	68.5	42	57	13	9	32.5	19
Pg 48	30 -44	30 -44	65	74	42	58	14	9	33	19.5

Table column D1: Sealing range to VDE 0619, where no strain relief is required

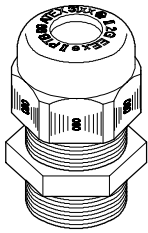
Table column D2: Sealing range including strain relief and twist protection to VDE 0619

**V-TEC:** With Pg connecting thread to DIN 40430  
 Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands  
 Seal of chloroprene/nitrile rubber  
 Moulded sealing, so no thread entry seal is needed  
 Tested to VDE 0619  
 Protection IP 68 at 5 bar

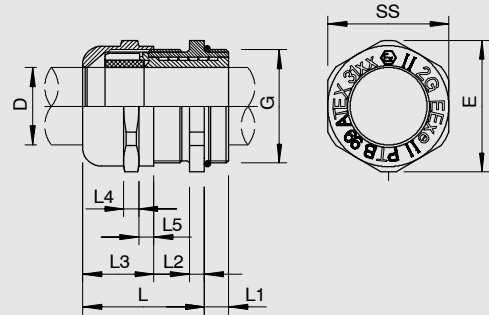
**PA** Polyamide, silver-grey (RAL 7001), light grey (RAL 7035), black  
 Flame-retardant to VDE 0471/IEC 695 Part 2-1  
 Test temperature 750°C



**OBO V-TEC EX cable glands**



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC EX	Pg 7	black	50	0.410	2050005
V-TEC EX	Pg 9	black	50	0.630	2050013
V-TEC EX	Pg 11	black	50	0.890	2050021
V-TEC EX	Pg 13.5	black	50	1.020	2050048
V-TEC EX	Pg 16	black	25	1.380	2050056
V-TEC EX	Pg 21	black	25	2.290	2050064
V-TEC EX	Pg 29	black	20	4.020	2050072
V-TEC EX	Pg 36	black	10	6.030	2050080
V-TEC EX	Pg 42	black	5	7.650	2050099
V-TEC EX	Pg 48	black	5	9.460	2050102



Nom. size G	Can be used for cable diameter of mm	Hexagon		L		L1 mm	L2 mm	L3 mm	L4 mm
		SS	E	min. ca	max. ca				
Pg 7	3.5- 6.5	15	16.5	18	23	8	5	12.6	7
Pg 9	5 - 8	19	21	21	27	8	5	15.5	9
Pg 11	4.5-10	22	25	22	29	8	5	17	10
Pg 13.5	6.5-12	24	27	23	30	9	5	18	10.5
Pg 16	7 -14	27	30	25	33	10	6	19	11
Pg 21	12 -18	33	37.5	28	38	11	6	22	12.5
Pg 29	17 -25	42	47.5	32	43	11	7	24.5	14
Pg 36		53	60	39	54	13	8	31	18
Pg 42	24 -38	60	68.5	42	57	13	9	32.5	19
Pg 48	30 -44	65	74	42	58	14	9	33	19.5

Table column D1: Sealing range to VDE 0619, where no strain relief is required

Table column D2: Sealing range including strain relief and twist protection to VDE 0619

**V-TEC EX:** Cable gland with EC design type approval certificate for devices and protection systems for use in accordance with the regulations in explosion-hazard areas - Directive 94/9/EC

**EC design type approval certificate number:**  
**PTB 99 ATEX 3112X and ... 3113X**

With Pg connecting thread to DIN 40430

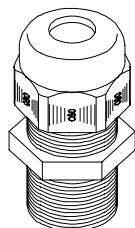
Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands

Seal of chloroprene/nitrile rubber, moulded sealing, so no thread entry seal is needed

Tested to VDE 0619, protection IP 68 at 5 bar

**PA** Polyamide, black  
Flame-retardant to VDE 0471/IEC 695 Part 2-1  
Test temperature 750°C

## OBO V-TEC L cable glands



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC L	Pg 7	silver-grey	50	0.410	2024179
V-TEC L	Pg 9	silver-grey	50	0.670	2024187
V-TEC L	Pg 11	silver-grey	50	0.930	2024195
V-TEC L	Pg 13.5	silver-grey	50	1.090	2024209
V-TEC L	Pg 16	silver-grey	25	1.490	2024217
V-TEC L	Pg 21	silver-grey	25	2.330	2024225
V-TEC L	Pg 29	silver-grey	20	3.860	2024233
V-TEC L	Pg 36	silver-grey	10	7.750	2024241
V-TEC L	Pg 42	silver-grey	5	10.070	2024268
V-TEC L	Pg 48	silver-grey	5	10.730	2024276

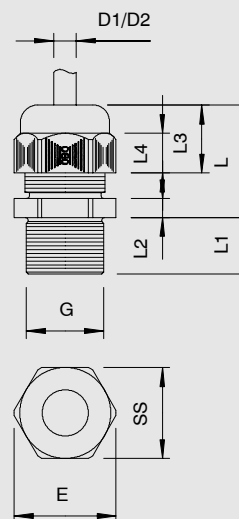
With long connecting thread

Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC L	Pg 7	l. grey	50	0.410	2024284
V-TEC L	Pg 9	l. grey	50	0.670	2024292
V-TEC L	Pg 11	l. grey	50	0.930	2024306
V-TEC L	Pg 13.5	l. grey	50	1.090	2024314
V-TEC L	Pg 16	l. grey	25	1.490	2024322
V-TEC L	Pg 21	l. grey	25	2.330	2024330
V-TEC L	Pg 29	l. grey	20	3.860	2024349
V-TEC L	Pg 36	l. grey	10	7.750	2024357
V-TEC L	Pg 42	l. grey	5	10.070	2024365
V-TEC L	Pg 48	l. grey	5	10.730	2024373

With long connecting thread

Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC L	Pg 7	black	50	0.410	2024381
V-TEC L	Pg 9	black	50	0.670	2024403
V-TEC L	Pg 11	black	50	0.930	2024411
V-TEC L	Pg 13.5	black	50	1.090	2024438
V-TEC L	Pg 16	black	25	1.490	2024446
V-TEC L	Pg 21	black	25	2.330	2024454
V-TEC L	Pg 29	black	20	3.860	2024462
V-TEC L	Pg 36	black	10	7.750	2024470
V-TEC L	Pg 42	black	5	10.070	2024489
V-TEC L	Pg 48	black	5	10.730	2024497

With long connecting thread



Nom. size G	Sealing range D1 mm	Strain rel. and twist protection D2 mm	Hexagon		min. ca	L max. ca	L1 mm	L2 mm	L3 mm	L4 mm
			SS	E						
Pg 7	2.5- 6.5	3 - 6.5	15	16.5	18	23	15	5	12.6	7
Pg 9	2.5- 8	3.5- 8	19	21	21	27	15	5	15.5	9
Pg 11	3.5-10	4.5-10	22	25	22	29	15	5	17	10
Pg 13.5	5 -12	6 -12	24	27	23	30	15	5	18	10.5
Pg 16	7 -14	7 -14	27	30	25	33	15	6	19	11
Pg 21	9 -18	12 -18	33	37.5	28	38	15	6	22	12.5
Pg 29	14 -25	17 -25	42	47.5	32	43	15	7	24.5	14
Pg 36	18 -32	20 -32	53	60	39	54	18	8	31	18
Pg 42	24 -38	26 -38	60	68.5	42	57	18	9	32.5	19
Pg 48	30 -44	30 -44	65	74	42	58	18	9	33	19.5

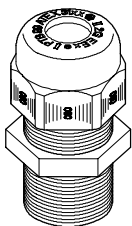
Table column D1: Sealing range to VDE 0619, where no strain relief is required

Table column D2: Sealing range including strain relief and twist protection to VDE 0619

**V-TEC L:** With long Pg connecting thread to DIN 40430  
Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands  
Seal of chloroprene/nitrile rubber  
Moulded sealing, so no thread entry seal is needed  
VDE tested, protection IP 68 at 5 bar

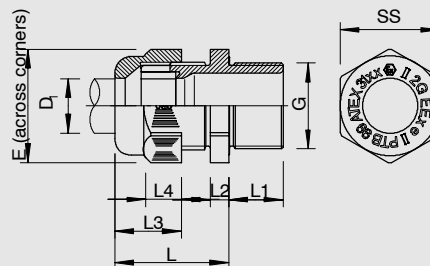
**PA** Polyamide, silver-grey (RAL 7001), light grey (RAL 7035), black  
Flame-retardant to VDE 0471/IEC 695 Part 2-1  
Test temperature 750°C

**OBO V-TEC EX L cable glands**



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC EX L	Pg 7	black	50	0.410	2050137
V-TEC EX L	Pg 9	black	50	0.670	2050145
V-TEC EX L	Pg 11	black	50	0.930	2050153
V-TEC EX L	Pg 13.5	black	50	1.090	2050161
V-TEC EX L	Pg 16	black	25	1.490	2050188
V-TEC EX L	Pg 21	black	25	2.330	2050196
V-TEC EX L	Pg 29	black	20	3.860	2050218
V-TEC EX L	Pg 36	black	10	7.750	2050226
V-TEC EX L	Pg 42	black	5	10.070	2050234
V-TEC EX L	Pg 48	black	5	10.730	2050242

With long connecting thread



Nom. size G	Can be used for cable diameter of mm	Hexagon SS		L		L1 mm	L2 mm	L3 mm	L4 mm
		SS	E	min. ca	max. ca				
Pg 7	3.5- 6.5	15	16.5	18	23	15	5	12.6	7
Pg 9	5 - 8	19	21	21	27	15	5	15.5	9
Pg 11	4.5-10	22	25	22	29	15	5	17	10
Pg 13.5	6.5-12	24	27	23	30	15	5	18	10.5
Pg 16	7 -14	27	30	25	33	15	6	19	11
Pg 21	12 -18	33	37.5	28	38	15	6	22	12.5
Pg 29	17 -25	42	47.5	32	43	15	7	24.5	14
Pg 36		53	60	39	54	18	8	31	18
Pg 42	24 -38	60	68.5	42	57	18	9	32.5	19
Pg 48	30 -44	65	74	42	58	18	9	33	19.5

Table column D1: Sealing range to VDE 0619, where no strain relief is required

Table column D2: Sealing range including strain relief and twist protection to VDE 0619

**V-TEC EX L:** Cable gland with EC design type approval certificate for devices and protection systems for use in accordance with the regulations in explosion-hazard areas - Directive 94/9/EC

**EC design type approval certificate number:**  
PTB 99 ATEX 3112X and ... 3113X

With long Pg connecting thread to DIN 40430

Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands

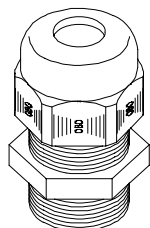
Seal of chloroprene/nitrile rubber

Moulded sealing, so no thread entry seal is needed

VDE tested, protection IP 68 at 5 bar

**PA** Polyamide, black  
Flame-retardant to VDE 0471/IEC 695 Part 2-1  
Test temperature 750°C

## OBO V-TEC M cable glands



M

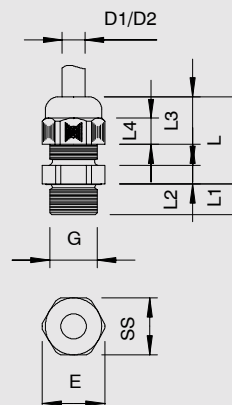


halogen-free  
chlorine  
fluorine  
bromine

Type	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC M 12x1.5	silver-grey	50	0.360	2022257
V-TEC M 16x1.5	silver-grey	50	0.630	2022265
V-TEC M 20x1.5	silver-grey	50	1.000	2022273
V-TEC M 25x1.5	silver-grey	25	2.350	2022281
V-TEC M 32x1.5	silver-grey	20	3.900	2022303
V-TEC M 40x1.5	silver-grey	10	7.500	2022311
V-TEC M 50x1.5	silver-grey	5	9.200	2022451
V-TEC M 63x1.5	silver-grey	5	9.660	2022478

Type	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC M 12x1.5	l. grey	50	0.360	2022338
V-TEC M 16x1.5	l. grey	50	0.630	2022346
V-TEC M 20x1.5	l. grey	50	1.000	2022354
V-TEC M 20x 1.5 NL	l. grey	50	1.380	2024880
V-TEC M 25x1.5	l. grey	25	2.350	2022362
V-TEC M 32x1.5	l. grey	20	3.900	2022370
V-TEC M 40x1.5	l. grey	10	7.500	2022397
V-TEC M 50x1.5	l. grey	5	9.200	2022486
V-TEC M 63x1.5	l. grey	5	9.660	2022494

Type	Colour	Pack qty	Weight kg/100	Ord. no. PA
V-TEC M 12x1.5	black	50	0.360	2022184
V-TEC M 16x1.5	black	50	0.630	2022192
V-TEC M 20x1.5	black	50	1.000	2022206
V-TEC M 25x1.5	black	25	2.350	2022214
V-TEC M 32x1.5	black	20	3.900	2022222
V-TEC M 40x1.5	black	10	7.500	2022230
V-TEC M 50x1.5	black	5	9.200	2022435
V-TEC M 63x1.5	black	5	9.660	2022443



Nom. size G	Sealing range D1 mm	Strain rel. and twist protection D2 mm	Hexagon SS	Hexagon E	L min. ca	L max. ca	L1 mm	L2 mm	L3 mm	L4 mm
M12x1.5	2.5- 6.5	3 - 6.5	15	16.5	18	23	8	5	12.6	7
M16x1.5	2.5- 8	3.5- 8	19	21	21	27	8	5	15.5	9
M20x1.5	5 -12	6 -12	24	27	23	30	9	5	18	10.5
M20	7 -14	7 -14	27	30	25	33	7	6	19	11
M25x1.5	9 18	12 -18	33	37.5	28	38	11	6	22	12.5
M32x1.5	14 -25	17 -25	42	47.5	32	43	11	7	24.5	14
M40x1.5	18 -32	20 -32	53	60	39	54	13	8	31	18
M50x1.5	24 -38	26 -38	60	68	42	57	13	9	32.5	19
M63x1.5	30 -44	30 -44	65	74	42	58	14	9	33	19.5

Table column D1: Sealing range to VDE 0619, where no strain relief is required

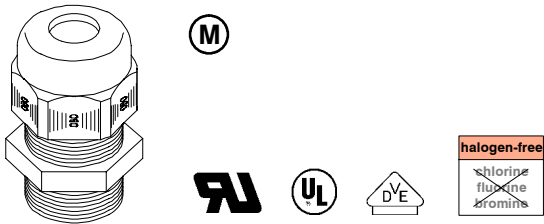
Table column D2: Sealing range including strain relief and twist protection to VDE 0619

**V-TEC M:** With metric connecting thread to IEC 423  
Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands  
Seal of chloroprene/nitrile rubber  
Moulded sealing, so no thread entry seal is needed  
VDE tested, protection IP 68 at 5 bar

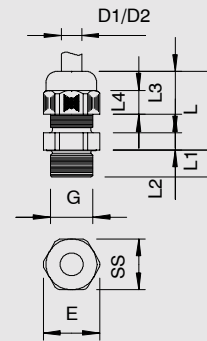
**V-TEC NL:** With metric connecting thread to IEC 423  
Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands  
Seal of chloroprene/nitrile rubber  
Moulded sealing, so no thread entry seal is needed  
Tested to EN 50262  
Protection IP 68 at 5 bar

**PA** Polyamide, silver-grey (RAL 7001), light grey (RAL 7035), black  
Flame-retardant to VDE 0471/IEC 695 Part 2-1  
Test temperature 750°C

## OBO V-TEC cable glands



Type	Connect- ing thread	Colour	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
V-TEC M20x1.5 NL	M20	l. grey	50	1.380	<b>2024880</b>



Nom. size G	Sealing range D1 mm	Strain rel. and twist protection D2 mm	Hexagon		L		L1 mm	L2 mm	L3 mm	L4 mm
			SS	E	min. ca	max. ca				
M20	7 -14	7 -14	27	30	25	33	7	6	19	11

Table column D1: Sealing range to EN 50262, where no strain relief is required

Table column D2: Sealing range including strain relief and twist protection to EN 50262

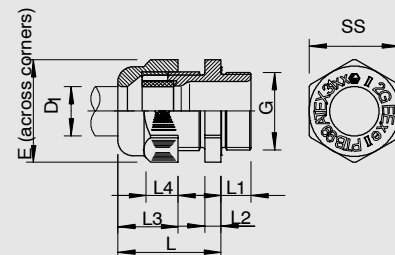
**V-TEC NL:** With metric connecting thread to IEC 423  
Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands  
Seal of chloroprene/nitrile rubber  
Moulded sealing, so no thread entry seal is needed  
Tested to EN 50262, protection IP 68 at 5 bar

**PA** Polyamide, light grey (RAL 7035)  
Flame-retardant to VDE 0471/IEC 695 Part 2-1  
Test temperature 750°C

## OBO V-TEC EX M cable glands



Type	Colour	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
V-TEC EX M 12x1.5	black	50	0.360	<b>2050307</b>
V-TEC EX M 16x1.5	black	50	0.630	<b>2050315</b>
V-TEC EX M 20x1.5	black	50	1.000	<b>2050323</b>
V-TEC EX M 25x1.5	black	25	2.350	<b>2050331</b>
V-TEC EX M 32x1.5	black	20	3.900	<b>2050358</b>
V-TEC EX M 40x1.5	black	10	7.500	<b>2050366</b>
V-TEC EX M 50x1.5	black	5	9.200	<b>2050374</b>
V-TEC EX M 63x1.5	black	5	9.460	<b>2050382</b>



Nom. size G	Can be used for cable diameter of mm	Hexagon		L		L1 mm	L2 mm	L3 mm	L4 mm
		SS	E	min. ca	max. ca				
M12x1.5	3.5- 6.5	15	16.5	18	23	8	5	12.6	7
M16x1.5	5 - 8	19	21	21	27	8	5	15.5	9
M20x1.5	7 -12	24	27	23	30	9	5	18	10.5
M25x1.5	12 -18	33	37.5	28	38	11	6	22	12.5
M32x1.5	17 -25	42	47.5	32	43	11	7	24.5	14
M40x1.5		53	60	39	54	13	8	31	18
M50x1.5		60	68.5	42	57	13	9	32.5	19
M63x1.5		65	74	42	58	14	9	33	19.5

Table column D1: Sealing range to VDE 0619, where no strain relief is required

Table column D2: Sealing range including strain relief and twist protection to VDE 0619

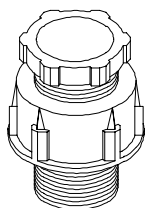
**V-TEC EX M:** Cable gland with EC design type approval certificate for devices and protection systems for use in accordance with the regulations in explosion-hazard areas - Directive 94/9/EC

**EC design type approval certificate number:**  
**PTB 99 ATEX 3112X and ... 3113X**

With metric connecting thread to IEC 423  
Rugged cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands  
Seal of chloroprene/nitrile rubber  
Moulded sealing, so no thread entry seal is needed  
VDE tested, protection IP 68 at 5 bar

**PA** Polyamide, black  
Flame-retardant to VDE 0471/IEC 695 Part 2-1  
Test temperature 750°C

## Conical cable glands



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
106/B	Pg 9	l. grey	500	50	0.700	2036088
106/B	Pg 11	l. grey	500	50	0.977	2036126
106/B	Pg 13.5	l. grey	500	50	1.050	2036142
106/B	Pg 16	l. grey	500	50	1.585	2036150
106/B	Pg 21	l. grey	500	50	2.594	2036223
106/B	Pg 29	l. grey	100	10	5.483	2036304
106/B	Pg 36	l. grey	160	10	10.238	2036371
106/B	Pg 42	l. grey	50	5	18.513	2036436
106/B	Pg 48	l. grey	50	5	21.138	2036495

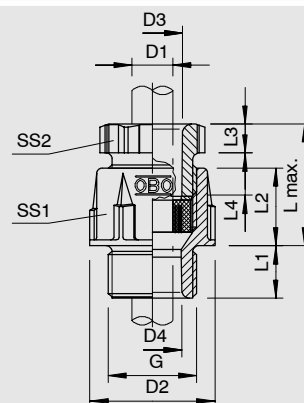
With variable gasket

### Accessories available:

Thread entry seals

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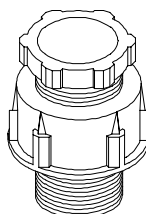
Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1	SS2	L1 mm	L2 mm	L3 mm	L4 mm	Lmax ca mm
Pg 9	5 -10	21.5	10.2	10.2	19	16	8	14	5	9	25
Pg 11	7.5-11.5	25	11.3	11.5	22	19	8	15	5	10	27
Pg 13.5	7.5-13	27	13.4	13.5	24	21	9	16	5	10.8	28
Pg 16	7.5-15	30	15.8	16.5	27	23	10	16.5	6	12	30
Pg 21	10 -20	37.5	21.2	21	33	30	11	19	7	17	38
Pg 29	18 -27	47.5	30	27.5	42	40	11	20.5	8	18	42
Pg 36	24 -34	58	38	34.5	53	50	12	24	8	17	43
Pg 42	30 -40	65	44.5	40.5	60	55	13	27	9	18.5	48
Pg 48	36 -45	70	50	45.5	65	60	14	27	9	18.5	48

106/B: Cable gland, Form A to DIN 46320

Pg connecting thread to DIN 40430, with variable gasket of NR/SBR, giving extended sealing range. Protection: with seal IP 65, without IP 54

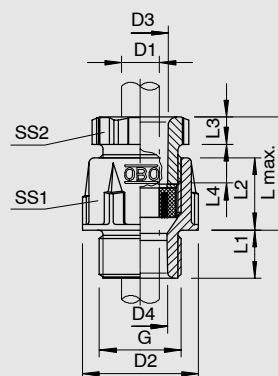
Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.

**PS** Polystyrene



Type	Colour	Pack qty	Weight kg/100	Ord. no. PS
106/B M16x1.5	l. grey	50	0.562	2035510
106/B M20x1.5	l. grey	50	0.900	2035512
106/B M25x1.5	l. grey	50	2.112	2035514
106/B M32x1.5	l. grey	10	3.700	2035516
106/B M40x1.5	l. grey	10	6.240	2035518
106/B M50x1.5	l. grey	5	8.500	2035520
106/B M63x1.5	l. grey	5	9.633	2035522

With variable gasket



Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1	SS2	L1 mm	L2 mm	L3 mm	L4 mm	Lmax ca mm
M16	5 -10	21.5	10.2	10.2	19	16	8	14	5	9	25
M20	7.5-13	27	13.4	13.5	24	21	9	16	5	10.8	28
M25	7.5-15	30	15.8	16.5	27	23	10	16.5	6	12	30
M32	18 -27	47.5	30	27.5	42	40	11	20.5	8	18	42
M40	24 -34	58	38	34.5	53	50	12	24	8	17	43
M50	30 -40	65	44.5	40.5	60	55	13	27	9	18.5	48
M63	36 -45	70	50	45.5	65	60	14	27	9	18.5	48

106/B M...: Cable gland, Form A to DIN 46320, with variable gasket of NR/SBR, giving extended sealing range

With metric connecting thread to IEC 423

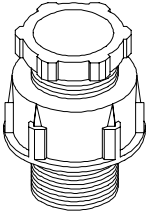
Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.

**PS** Polystyrene, light grey (RAL 7035), impact-resistant



## Conical cable glands



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>106</b>	Pg 7	l. grey	900	50	0.396	<b>2036061</b>
<b>106</b>	Pg 9	l. grey	500	50	0.562	<b>2036096</b>
<b>106</b>	Pg 11	l. grey	500	50	0.798	<b>2036118</b>
<b>106</b>	Pg 13.5	l. grey	600	50	0.900	<b>2036134</b>
<b>106</b>	Pg 16	l. grey	600	50	1.228	<b>2036169</b>
<b>106</b>	Pg 21	l. grey	600	50	2.112	<b>2036215</b>
<b>106</b>	Pg 29	l. grey	120	10	3.700	<b>2036290</b>
<b>106</b>	Pg 36	l. grey	80	10	6.240	<b>2036363</b>
<b>106</b>	Pg 42	l. grey	50	5	8.500	<b>2036428</b>
<b>106</b>	Pg 48	l. grey	50	5	9.633	<b>2036487</b>

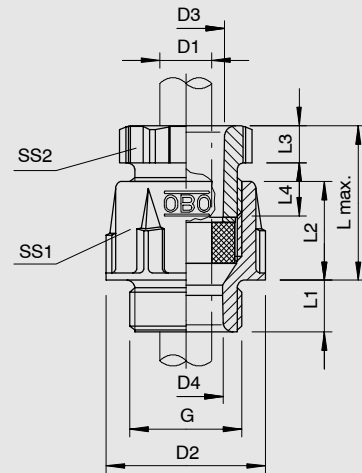
Form A to DIN 46320

**Accessories available:**

Thread entry seals

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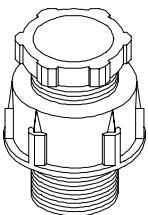


Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1 SS2		L1 mm	L2 mm	L3 mm	L4 mm	L max. ca mm
Pg 7	3.5- 6.5	16.5	7	7	15	13	8	13	5	8.5	23
Pg 9	4.5- 7	21.5	10.2	10.2	19	16	8	14	5	9	25
Pg 11	5.5-10	25	11.3	11.5	22	19	8	15	5	10	27
Pg 13.5	9 -13	27	13.4	13.5	24	21	9	16	5	10.8	28
Pg 16	10 -14	30	15.8	16.5	27	23	10	16.5	6	12	30
Pg 21	14 -18	37.5	21.2	21	33	30	11	19	7	17	38
Pg 29	18 -25	47.5	30	27.5	42	40	11	20.5	8	18	42
Pg 36	25 -33	58	38	34.5	53	50	12	24	8	17	43
Pg 42	30 -38	65	44.5	40.5	60	55	13	27	9	18.5	48
Pg 48	37 -44	70	50	45.5	65	60	14	27	9	18.5	48

**106:** Standard cable gland, Form A to DIN 46320, with single seal of NR/SBR, Pg connecting thread to DIN 40430

Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PS
<b>106 M</b>	M12	l. grey	50	0.396	<b>2035316</b>
<b>106 M</b>	M16	l. grey	50	0.562	<b>2035324</b>
<b>106 M</b>	M20	l. grey	50	0.900	<b>2035332</b>
<b>106 M</b>	M25	l. grey	50	2.112	<b>2035340</b>
<b>106 M</b>	M32	l. grey	10	3.700	<b>2035359</b>
<b>106 M</b>	M40	l. grey	10	6.240	<b>2035367</b>
<b>106 M</b>	M50	l. grey	5	8.500	<b>2035375</b>
<b>106 M</b>	M63	l. grey	5	9.633	<b>2035383</b>

Form A to DIN 46320

**Accessories available:**

Thread entry seals

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Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1 SS2		L1 mm	L2 mm	L3 mm	L4 mm	L max. ca mm
M12	3.5- 6.5	16.5	7	7	15	13	8	13	5	8.5	23
M16	4.5- 7	21.5	10.2	10	19	16	8	14	5	9	25
M20	9 -13	25	11.3	13	22	19	8	15	5	10	27
M25	10 -14	27	13.4	16	24	21	9	16	5	10.8	28
M32	18 -25	30	15.8	26	27	23	10	16.5	6	12	30
M40	25 -33	37.5	21.2	33	33	30	11	19	7	17	38
M50	30 -38	47.5	30	40.5	42	40	11	20.5	8	18	42
M63	37 -44	58	38	45.5	53	50	12	24	8	17	43

**106 M...:** Standard cable gland, Form A to DIN 46320 with single seal of NR/SBR

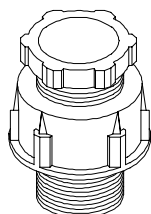
With metric connecting thread to IEC 423

Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.

**PS** Polystyrene, light grey (RAL 7035), impact-resistant

## Conical cable glands



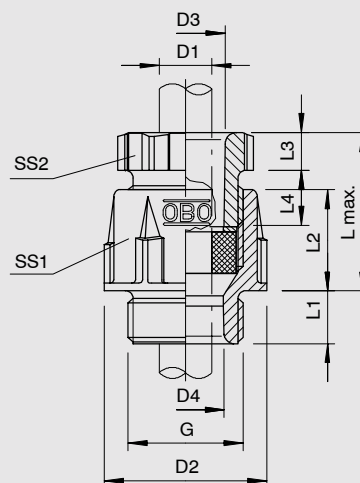
Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
106 VDE	Pg 7	l. grey	1000	50	0.420	2036509
106 VDE	Pg 9	l. grey	500	50	0.610	2036517
106 VDE	Pg 11	l. grey	500	50	0.870	2036533
106 VDE	Pg 13.5	l. grey	500	50	1.059	2036576
106 VDE	Pg 16	l. grey	500	50	1.340	2036592
106 VDE	Pg 21	l. grey	500	50	2.334	2036614
106 VDE	Pg 29	l. grey	100	10	3.834	2036630
106 VDE	Pg 36	l. grey	160	10	7.800	2036657
106 VDE	Pg 42	l. grey	50	5	16.400	2036673
106 VDE	Pg 48	l. grey	50	5	18.900	2036703

### Accessories available:

Thread entry seals

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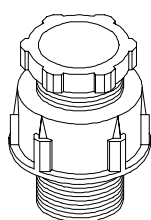


Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1	SS2	L1 mm	L2 mm	L3 mm	L4 mm	L max. ca mm
Pg 7	3.5- 6.5	16.5	7	7	15	13	8	13	5	8.5	23
Pg 9	4.5- 7	21.5	10.2	10.2	19	16	8	14	5	9	25
Pg 11	5.5-10	25	11.3	11.5	22	19	8	15	5	10	27
Pg 13.5	9 -13	27	13.4	13.5	24	21	9	16	5	10.8	28
Pg 16	10 -14	30	15.8	16.5	27	23	10	16.5	6	12	30
Pg 21	14 -18	37.5	21.2	21	33	30	11	19	7	17	38
Pg 29	18 -25	47.5	30	27.5	42	40	11	20.5	8	18	42
Pg 36	25 -33	58	38	34.5	53	50	12	24	8	17	43
Pg 42	30 -38	65	44.5	40.5	60	55	13	27	9	18.5	48
Pg 48	37 -44	70	50	45.5	65	60	14	27	9	18.5	48

**106/VDE:** Standard cable gland, Form A to DIN 46320 with single seal of NR/SBR

Pg connecting thread to DIN 40430

Protection: with seal IP 65, without IP 54



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
106 M PA	M12	l. grey	50	0.420	2035413
106 M PA	M16	l. grey	50	0.610	2035421
106 M PA	M20	l. grey	50	1.059	2035448
106 M PA	M25	l. grey	50	2.334	2035456
106 M PA	M32	l. grey	10	3.834	2035464
106 M PA	M40	l. grey	10	7.800	2035472
106 M PA	M50	l. grey	5	16.400	2035480
106 M PA	M63	l. grey	5	18.900	2035499

### Accessories available:

Thread entry seals

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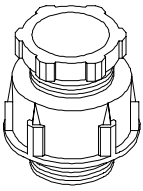
Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1	SS2	L1 mm	L2 mm	L3 mm	L4 mm	L max. ca mm
M 12	3.5- 6.5	16.5	7	7	15	13	8	13	5	8.5	23
M 16	4.5- 7	21.5	10.2	10	19	16	8	14	5	9	25
M 20	9 -13	25	11.3	13	22	19	8	15	5	10	27
M 25	10 -14	27	13.4	16	24	21	9	16	5	10.8	28
M 32	18 -25	30	15.8	26	27	23	10	16.5	6	12	30
M 40	25 -33	37.5	21.2	33	33	30	11	19	7	17	38
M 50	30 -38	47.5	30	40.5	42	40	11	20.5	8	18	42
M 63	37 -44	58	38	45.5	53	50	12	24	8	17	43

**106 M PA:** Standard cable gland, Form A to DIN 46320 with single seal of NR/SBR; and with metric connecting thread to IEC 423

Protection: with seal IP 65, without IP 54

**PA** Polyamide, glassfibre-reinforced, light grey (RAL 7035)  
Flame-retardant to VDE 0471/DIN IEC 695 Part 2-1  
Test temperature 750°C

## Conical cable glands



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>106/K</b>	Pg 13.5	l. grey	500	50	0.960	<b>2038013</b>
<b>106/K</b>	Pg 16	l. grey	250	25	1.172	<b>2038048</b>

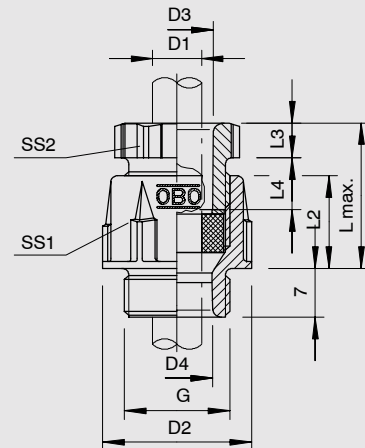
With short connecting thread

**Accessories available:**

Thread entry seals

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Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1 SS2		L2 mm	L3 mm	L4 mm	Lmax. ca mm
Pg 13.5	9 - 13	27	13.4	14	24	21	16	5	10.8	26
Pg 16	10 - 14	30	15.8	15.5	27	23	16.5	6	12	27

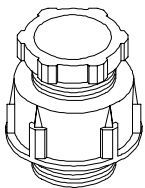
**106/K:** Cable gland, Form A to DIN 46320, but with short connecting thread

Especially suitable for junction boxes with Pg thread

With single seal of NR/SBR

Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>106/K M20</b>	M20	l. grey	500	50	0.960	<b>2038072</b>

With short connecting thread

**Accessories available:**

Thread entry seals

107/F M

see page 38

Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1 SS2		L2 mm	L3 mm	L4 mm	Lmax. ca mm
M20	9 - 13	27	13.4	14	24	21	16	5	10.8	26

**106/K M...:** Cable gland, Form A to DIN 46320, but with short connecting thread

Especially suitable for junction boxes with metric thread

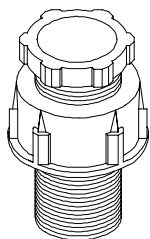
With single seal of NR/SBR

Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.

**PS** Polystyrene, light grey (RAL 7035), impact-resistant

## Conical cable glands



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
106/L	Pg 9	l. grey	500	50	0.668	2039028
106/L	Pg 11	l. grey	500	50	0.730	2039044
106/L	Pg 13.5	l. grey	500	50	1.052	2039060
106/L	Pg 16	l. grey	250	25	1.428	2039087
106/L	Pg 21	l. grey	250	25	2.584	2039109
106/L	Pg 29	l. grey	150	15	4.160	2039125

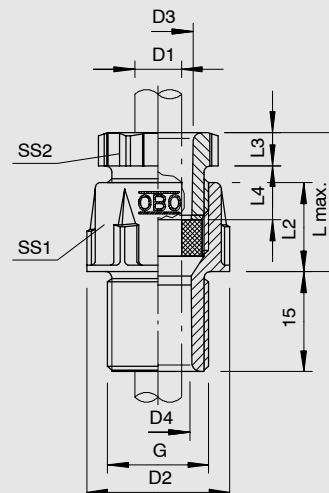
With long connecting thread

### Accessories available:

Thread entry seals

107/F

see page 38



Nom. size G	Sealing range D1 mm	D2 mm	D3 mm	D4 mm	Spanner size SS1	SS2	L2 mm	L3 mm	L4 mm	Lmax. ca mm
Pg 9	4.5- 7	21.5	10.2	10	19	16	14	5	9	32
Pg 11	5.5-10	25	11.3	12	22	19	15	5	10	34
Pg 13.5	9 -13	27	13.4	14	24	21	16	5	10.8	34
Pg 16	10 -14	30	15.8	16	27	23	16.5	6	12	35
Pg 21	14 -18	37.5	21.2	21	33	30	19	7	17	42
Pg 29	18 -25	47.5	30.3	27.5	42	40	20.5	8	18	46

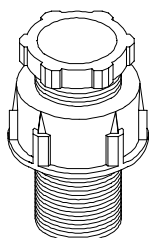
**106/L:** Cable gland, Form A to DIN 46320  
With long Pg connecting thread to DIN 40430  
(primarily for use with locknut)  
With single seal of NR/SBR  
Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.

**106/L VDE:** Cable gland, Form A to DIN 46320  
With long Pg connecting thread to DIN 40430  
(primarily for use with locknut)  
With single seal of NR/SBR  
Protection: with seal IP 65, without IP 54

**PS** Polystyrene, light grey (RAL 7035), impact-resistant

**PA** Polyamide, glassfibre-reinforced, light grey (RAL 7035)  
Flame-retardant to VDE 0471/DIN IEC 695 Part 2-1  
Test temperature 750°C



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
106/L VDE	Pg 9	l. grey	500	50	0.668	2039222
106/L VDE	Pg 11	l. grey	500	50	0.730	2039249
106/L VDE	Pg 13.5	l. grey	500	50	1.052	2039265
106/L VDE	Pg 16	l. grey	250	25	1.428	2039281
106/L VDE	Pg 21	l. grey	250	25	2.584	2039303
106/L VDE	Pg 29	l. grey	150	15	4.160	2039338

With long connecting thread

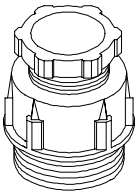
### Accessories available:

Thread entry seals

107/F

see page 38

## Reducing conical cable glands



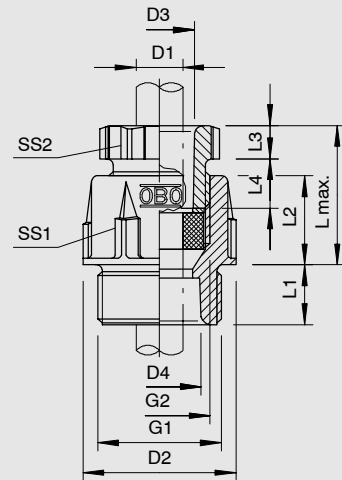
Type	Connecting thread/ internal thread	Colour	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>106/R</b>	Pg 11 /9	l. grey	50	0.570	<b>2040026</b>
<b>106/R</b>	Pg 13.5/9	l. grey	50	0.600	<b>2040042</b>
<b>106/R</b>	Pg 13.5/11	l. grey	50	0.740	<b>2040069</b>
<b>106/R</b>	Pg 16 /11	l. grey	25	0.770	<b>2040085</b>
<b>106/R</b>	Pg 16 /13.5	l. grey	25	1.034	<b>2040107</b>
<b>106/R</b>	Pg 21 /16	l. grey	25	1.400	<b>2040123</b>
<b>106/R</b>	Pg 29 /21	l. grey	15	2.688	<b>2040158</b>

**Accessories available:**

Thread entry seals

107/F

see page 38



Nom. size	G1	G2	Sealing range D1 mm	Spanner size	
				SS1	SS2
Pg 11 / 9	Pg 11	Pg 9	4.5- 7	19	16
Pg 13.5/ 9	Pg 13.5	Pg 9	4.5- 7	19	16
Pg 13.5/11	Pg 13.5	Pg 11	5 -10	22	19
Pg 16 /11	Pg 16	Pg 11	5 -10	22	19
Pg 16 /13.5	Pg 16	Pg 13.5	9 -13	24	21
Pg 21 /16	Pg 21	Pg 16	10 -14	27	23
Pg 29 /21	Pg 29	Pg 21	14 -18	33	30

**106/R:** Reducing cable glands are used wherever the cable diameter is too small to be sealed with the existing Pg thread.

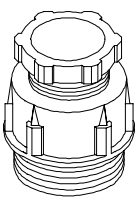
Dimensions with reference to DIN 46320

Pg connecting thread to DIN 40430

With single seal of NR/SBR

Protection: with seal IP 65, without IP 54

Note: Cable glands of polystyrene should not be over-tightened because of the risk of stress cracking.



Type	Connecting thread/ internal thread	Colour	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
<b>106/R VDE</b>	Pg 11 /9	l. grey	50	0.708	<b>2040328</b>
<b>106/R VDE</b>	Pg 13.5/9	l. grey	50	0.738	<b>2040344</b>
<b>106/R VDE</b>	Pg 13.5/11	l. grey	50	0.969	<b>2040360</b>
<b>106/R VDE</b>	Pg 16 /11	l. grey	25	1.009	<b>2040387</b>
<b>106/R VDE</b>	Pg 16 /13.5	l. grey	25	1.190	<b>2040409</b>
<b>106/R VDE</b>	Pg 21 /16	l. grey	25	1.460	<b>2040425</b>
<b>106/R VDE</b>	Pg 29 /21	l. grey	15	2.694	<b>2040441</b>

**Accessories available:**

Thread entry seals

107/F

see page 38

Nom. size	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	Lmax. ca mm
Pg 11 / 9	23	10.2	10	9	14	5	9	24
Pg 13.5/ 9	25.5	10.2	10	9	14.5	5	9	26
Pg 13.5/11	25.5	11.3	12	9	15	5	10	27
Pg 16 /11	28	11.3	12	11	15.5	5	10	28
Pg 16 /13.5	28	13.4	14	11	16.5	5	10.8	29.5
Pg 21 /16	34	15.8	15.5	11	17	6	12	31
Pg 29 /21	44	21.2	21	12	21	7	17	40

**106/R VDE:** Reducing cable glands are used wherever the cable diameter is too small to be sealed with the existing Pg thread.

Dimensions with reference to DIN 46320

Pg connecting thread to DIN 40430

With single seal of NR/SBR

Protection: with seal IP 65, without IP 54

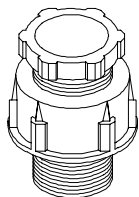
**PS** Polystyrene, light grey (RAL 7035), impact-resistant

**PA** Polyamide, glassfibre-reinforced, light grey (RAL 7035)

Flame-retardant to VDE 0471/DIN IEC 695 Part 2-1

Test temperature 750°C

## Cable glands



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PC
106/Z	Pg 9	l. grey	50	0.630	2023504
106/Z	Pg 11	l. grey	50	0.860	2023512
106/Z	Pg 13.5	l. grey	50	1.100	2023520
106/Z	Pg 16	l. grey	25	1.420	2023539
106/Z	Pg 21	l. grey	25	2.500	2023547
106/Z	Pg 29	l. grey	15	4.000	2023555

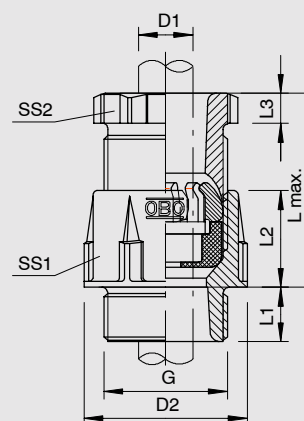
With strain relief

**Accessories available:**

Thread entry seals

107/F

see page 38



Nom. size G	Sealing range D1 mm	D2 mm	Spanner size		L1 mm	L2 mm	L3 mm	Lmax. ca mm
			SS1	SS2				
Pg 9	5 - 8	21.5	19	16	8	14	5	25
Pg 11	6 - 10	25	22	19	8	15	5	27
Pg 13.5	8 - 12	27	24	21	9	16	5	28
Pg 16	10 - 14	30	27	23	10	16.5	6	30
Pg 21	13 - 18	37.5	33	30	11	19	7	38
Pg 29	17 - 24	47.5	42	40	11	20.5	8	42

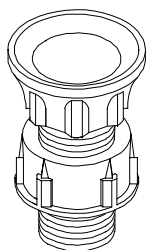
**106/Z:** Cable gland with external dimensions to DIN 46320, but with integral, centrally acting strain relief

Pg connecting thread to DIN 40430

Seal of chloroprene rubber with double-action sealing function

Protection: with seal IP 65, without IP 54

**PC** Polycarbonate (Makrolon)



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PC
106/ZB	Pg 9	l. grey	50	0.730	2023709
106/ZB	Pg 11	l. grey	50	0.960	2023717
106/ZB	Pg 13.5	l. grey	50	1.190	2023725
106/ZB	Pg 16	l. grey	25	1.610	2023733
106/ZB	Pg 21	l. grey	25	2.600	2023741
106/ZB	Pg 29	l. grey	15	4.500	2023768

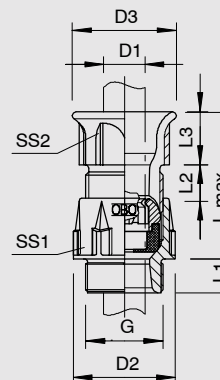
With bending protection and strain relief

**Accessories available:**

Thread entry seals

107/F

see page 38



Nom. size G	Sealing and clamping range D1 mm	D2 mm	D3 mm	Spanner size		L1 mm	L2 mm	L3 mm	Lmax. ca mm
				SS1	SS2				
Pg 9	5 - 8	21.5	23.5	19	16	8	14	10.2	30
Pg 11	6 - 10	25	26	22	19	8	15	13	35
Pg 13.5	8 - 12	27	27.5	24	21	9	16	14	37
Pg 16	10 - 14	30	32	27	23	10	16.5	16	40
Pg 21	13 - 18	37.5	38	33	30	11	19	17	48
Pg 29	17 - 24	47.5	49	42	40	11	20.5	20	54

**106/ZB:** Cable gland with integral, centrally acting strain relief with a flexible conical end-piece

Seal of chloroprene rubber with double-action sealing function

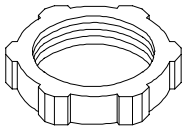
Pg connecting thread to DIN 40430

Protection: with seal IP 65, without IP 54

**PC** Polycarbonate (Makrolon)

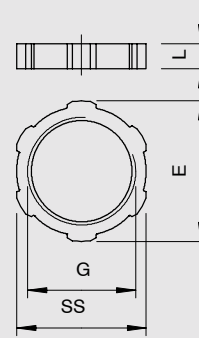


**Locknuts**



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
116	Pg 7	l. grey	4000	100	0.077	2043076
116	Pg 9	l. grey	3000	100	0.114	2043092
116	Pg 11	l. grey	3000	100	0.151	2043114
116	Pg 13.5	l. grey	2700	100	0.210	2043130
116	Pg 16	l. grey	2700	100	0.267	2043165
116	Pg 21	l. grey	1200	100	0.343	2043211
116	Pg 29	l. grey	500	50	0.902	2043297
116	Pg 36	l. grey	250	25	1.380	2043351
116	Pg 42	l. grey	250	25	1.440	2043424
116	Pg 48	l. grey	250	25	1.500	2043483

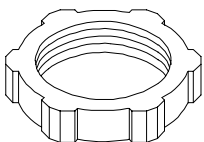
Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
116	Pg 7	black	4000	100	0.077	2043572
116	Pg 9	black	3000	100	0.114	2043599
116	Pg 11	black	3000	100	0.151	2043610
116	Pg 13.5	black	2700	100	0.210	2043637
116	Pg 16	black	2700	100	0.267	2043661
116	Pg 21	black	1200	100	0.343	2043718
116	Pg 29	black	500	50	0.902	2043793
116	Pg 36	black	250	25	1.380	2043866
116	Pg 42	black	250	25	1.440	2043920
116	Pg 48	black	250	25	1.500	2043971



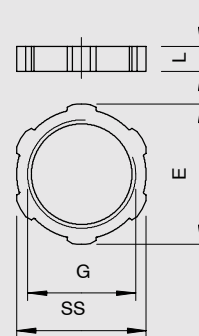
Nom. size G	SS mm	E mm	L mm
Pg 7	19	21	5
Pg 9	22	24	5
Pg 11	24	26	5
Pg 13.5	27	29	6
Pg 16	30	33	6
Pg 21	36	39	7
Pg 29	46	50	7
Pg 36	60	66	8
Pg 42	65	73	8
Pg 48	70	78	8

116: Locknut to DIN 46320, with Pg thread to DIN 40430

**PS** Polystyrene, light grey (RAL 7035)



Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
116 VDE	Pg 7	l. grey	2000	100	0.093	2048078
116 VDE	Pg 9	l. grey	3000	100	0.169	2048094
116 VDE	Pg 11	l. grey	3000	100	0.184	2048116
116 VDE	Pg 13.5	l. grey	2400	100	0.256	2048132
116 VDE	Pg 16	l. grey	2400	100	0.325	2048167
116 VDE	Pg 21	l. grey	1600	100	0.509	2048221
116 VDE	Pg 29	l. grey	500	50	1.100	2048299
116 VDE	Pg 36	l. grey	250	25	1.683	2048361
116 VDE	Pg 42	l. grey	250	25	1.756	2048426
116 VDE	Pg 48	l. grey	250	25	1.830	2048485

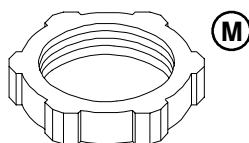


Nom. size G	SS mm	E mm	L mm
Pg 7	19	21	5
Pg 9	22	24	5
Pg 11	24	26	5
Pg 13.5	27	29	6
Pg 16	30	33	6
Pg 21	36	39	7
Pg 29	46	50	7
Pg 36	60	66	8
Pg 42	65	73	8
Pg 48	70	78	8

116 VDE: Locknut to DIN 46320, with Pg thread to DIN 40430

**PA** Polyamide

## Locknuts



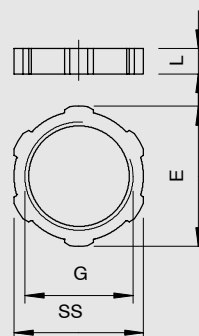
(M)

halogen-free

chlorine  
fluorine  
bromine

Type	Thread	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
116/M	M12x1.5	l. grey	2000	100	0.100	2049503
116/M	M16x1.5	l. grey	2000	100	0.160	2049511
116/M	M20x1.5	l. grey	1000	100	0.250	2049538
116/M	M25x1.5	l. grey	1000	100	0.350	2049546
116/M	M32x1.5	l. grey	500	50	0.610	2049554
116/M	M40x1.5	l. grey	250	25	1.683	2049562
116/M	M50x1.5	l. grey	250	25	1.756	2049570
116/M	M63x1.5	l. grey	250	25	1.830	2049589

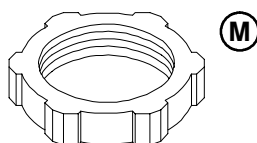
With metric thread to IEC 423



Nom. size G	SS mm	E mm	L mm
M 12 x 1.5	17	19	5
M 16 x 1.5	22	25	5
M 20 x 1.5	26	29	6
M 25 x 1.5	32	36	6.5
M 32 x 1.5	41	46	7
M 40 x 1.5	50	56	7.5
M 50 x 1.5	60	68	8
M 63 x 1.5	75	83	8.5

116 M: Locknut to DIN 46319, with metric thread to IEC 423

**PS** Polystyrene, light grey (RAL 7035)



(M)



halogen-free

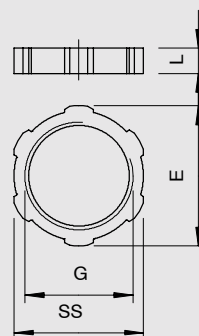
chlorine  
fluorine  
bromine

Type	Thread	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
116/M VDE	M12x1.5	silv.-grey	2000	100	0.100	2048752
116/M VDE	M16x1.5	silv.-grey	2000	100	0.160	2048760
116/M VDE	M20x1.5	silv.-grey	1000	100	0.250	2048779
116/M VDE	M25x1.5	silv.-grey	1000	100	0.350	2048787
116/M VDE	M32x1.5	silv.-grey	500	50	0.610	2048795
116/M VDE	M40x1.5	silv.-grey	250	25	1.683	2048809
116/M VDE	M50x1.5	silv.-grey	250	25	1.756	2048817
116/M VDE	M63x1.5	silv.-grey	250	25	1.830	2048825

Type	Thread	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
116/M VDE	M12x1.5	l. grey	2000	100	0.100	2048906
116/M VDE	M16x1.5	l. grey	2000	100	0.160	2048914
116/M VDE	M20x1.5	l. grey	1000	100	0.250	2048922
116/M VDE	M25x1.5	l. grey	1000	100	0.350	2048930
116/M VDE	M32x1.5	l. grey	500	50	0.610	2048949
116/M VDE	M40x1.5	l. grey	250	25	1.683	2048957
116/M VDE	M50x1.5	l. grey	250	25	1.756	2048965
116/M VDE	M63x1.5	l. grey	250	25	1.830	2048973

Type	Thread	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
116/M VDE	M12x1.5	black	2000	100	0.100	2049066
116/M VDE	M16x1.5	black	2000	100	0.160	2049074
116/M VDE	M20x1.5	black	1000	100	0.250	2049082
116/M VDE	M25x1.5	black	1000	100	0.350	2049090
116/M VDE	M32x1.5	black	500	50	0.610	2049104
116/M VDE	M40x1.5	black	250	25	1.683	2049112
116/M VDE	M50x1.5	black	250	25	1.756	2049120
116/M VDE	M63x1.5	black	250	25	1.830	2049139

With metric thread to IEC 423

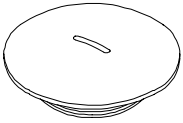


Nom. size G	SS mm	E mm	L mm
M 12 x 1.5	17	19	5
M 16 x 1.5	22	25	5
M 20 x 1.5	26	29	6
M 25 x 1.5	32	36	6.5
M 32 x 1.5	41	46	7
M 40 x 1.5	50	56	7.5
M 50 x 1.5	60	68	8
M 63 x 1.5	75	83	8.5

116/M VDE: Locknut to DIN 46319, with metric thread to IEC 423

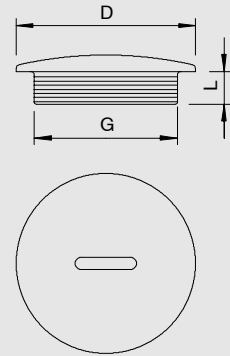
**PA** Polyamide

## Screw plugs

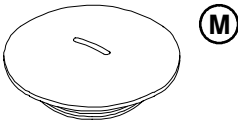


Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
108	Pg 7	l. grey	2000	100	0.146	2033070
108	Pg 9	l. grey	2000	100	0.161	2033097
108	Pg 11	l. grey	1800	100	0.178	2033119
108	Pg 13.5	l. grey	1200	100	0.209	2033135
108	Pg 16	l. grey	1000	100	0.235	2033151
108	Pg 21	l. grey	1000	100	0.355	2033216
108	Pg 29	l. grey	500	50	0.786	2033291
108	Pg 36	l. grey	200	25	1.280	2033364
108	Pg 42	l. grey	250	25	1.400	2033429
108	Pg 48	l. grey	300	25	1.850	2033488

Nom. size G	D mm	L mm
Pg 7	14	6
Pg 9	19	6
Pg 11	22	6
Pg 13.5	25	6.5
Pg 16	27	6.5
Pg 21	34	8
Pg 29	44	8
Pg 36	58	10
Pg 42	67	10
Pg 48	73	12



**108:** Screw plug to DIN 46320  
With Pg thread to DIN 40430



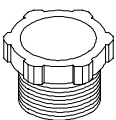
Type	Thread	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
108 M	M12x1.5	l. grey	3000	100	0.146	2033003
108 M	M16x1.5	l. grey	2000	100	0.161	2033007
108 M	M20x1.5	l. grey	1200	100	0.209	2033011
108 M	M25x1.5	l. grey	1000	100	0.355	2033016
108 M	M32x1.5	l. grey	500	50	0.786	2033021
108 M	M40x1.5	l. grey	200	25	1.280	2033026
108 M	M50x1.5	l. grey	250	25	1.400	2033032
108 M	M63x1.5	l. grey	300	25	1.850	2033038

Nom. size G	D mm	L mm
M12x1.5	15	6
M16x1.5	20	6
M20x1.5	24	6
M25x1.5	30	8
M32x1.5	37	8
M40x1.5	46	8
M50x1.5	56	10
M63x1.5	70	12

**108 M...:** Screw plug to DIN 46320, with metric thread to IEC 423

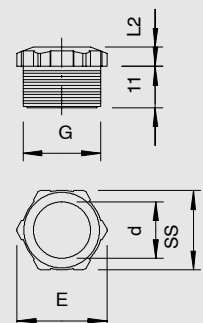
**PS** Polystyrene, light grey (RAL 7035)

## Threaded bushes



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PS
107/E	Pg 7	l. grey	100	0.115	2025078
107/E	Pg 9	l. grey	100	0.170	2025094
107/E	Pg 11	l. grey	100	0.180	2025116
107/E	Pg 13.5	l. grey	100	0.325	2025132
107/E	Pg 16	l. grey	100	0.404	2025167
107/E	Pg 21	l. grey	50	0.696	2025213
107/E	Pg 29	l. grey	25	1.296	2025299
107/E	Pg 36	l. grey	25	2.508	2025361
107/E	Pg 42	l. grey	10	4.540	2025426
107/E	Pg 48	l. grey	10	5.580	2025485

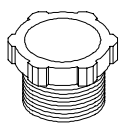
Nom. size G	D mm	L1 mm	L2 mm	SS mm	E mm
Pg 7	7	8.5	5	13	14.7
Pg 9	10.2	9	5	16	18
Pg 11	11.3	10	5	19	21.5
Pg 13.5	13.4	10.5	5	21	23.8
Pg 16	15.8	12	6	23	26
Pg 21	21.2	17	7	30	34
Pg 29	30	18	8	40	45
Pg 36	38.2	17	8	50	56.5
Pg 42	44.5	18.5	9	55	62
Pg 48	50	18.5	9	60	68



**107/E:** Threaded bush (Part 1) to DIN 46320  
Pg thread to DIN 40430

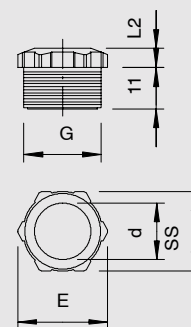
**PS** Polystyrene, light grey (RAL 7035)

## Threaded bushes



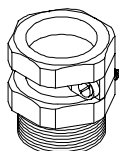
Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
107/E VDE	Pg 7	l. grey	100	0.158	2025507
107/E VDE	Pg 9	l. grey	100	0.180	2025515
107/E VDE	Pg 11	l. grey	100	0.270	2025531
107/E VDE	Pg 13.5	l. grey	100	0.340	2025566
107/E VDE	Pg 16	l. grey	100	0.450	2025582
107/E VDE	Pg 21	l. grey	50	0.780	2025604
107/E VDE	Pg 29	l. grey	25	1.280	2025620
107/E VDE	Pg 36	l. grey	25	2.830	2025647
107/E VDE	Pg 42	l. grey	10	5.010	2025663
107/E VDE	Pg 48	l. grey	10	6.250	2025698

Nom. size G	D mm	L1 mm	L2 mm	SS mm	E mm
Pg 7	7	8.5	5	13	14.7
Pg 9	10.2	9	5	16	18
Pg 11	11.3	10	5	19	21.5
Pg 13.5	13.4	10.5	5	21	23.8
Pg 16	15.8	12	6	23	26
Pg 21	21.2	17	7	30	34
Pg 29	30	18	8	40	45
Pg 36	38.2	17	8	50	56.5
Pg 42	44.5	18.5	9	55	62
Pg 48	50	18.5	9	60	68



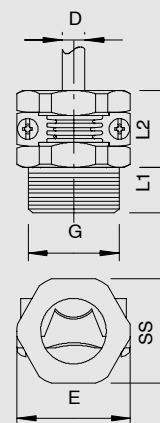
107/E VDE: Threaded bush Part 1 to DIN 46320, glassfibre-reinforced

PA Polyamide, light grey (RAL 7035)



Type	Thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
107/Z	Pg 9	l. grey	100	0.400	2023091
107/Z	Pg 11	l. grey	100	0.600	2023113
107/Z	Pg 13.5	l. grey	100	0.680	2023121
107/Z	Pg 16	l. grey	50	0.900	2023164
107/Z	Pg 21	l. grey	25	1.800	2023210
107/Z	Pg 29	l. grey	25	3.000	2023296

Nom. size G	Clamping range D mm	L1 mm	L2 mm	SS mm	E mm
Pg 9	3.5-11.3	8.5	14.5	19	21
Pg 11	4 -13.3	9	16	21	23
Pg 13.5	4.1-14.3	10	17	23	25
Pg 16	5 -16.2	10	19	25	27
Pg 21	5.9-21.2	12.5	23.5	32	35
Pg 29	7.1-29	16	30	42	45

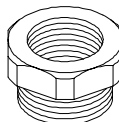


107/Z: Threaded bush with crossbar strain relief  
Screws, steel, electro-galvanised  
Pg thread to DIN 40430

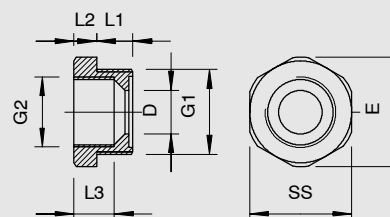
PA Polyamide, light grey (RAL 7035)

With strain relief

## Reducers



Type	Connecting/ internal thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
107/R	Pg 11 / 7	l. grey	50	0.400	2030705
107/R	Pg 13.5/ 9	l. grey	50	0.450	2030713
107/R	Pg 16 / 9	l. grey	50	0.600	2030748
107/R	Pg 16 /11	l. grey	50	0.480	2030756
107/R	Pg 21 /11	l. grey	50	0.910	2030764
107/R	Pg 21 /13.5	l. grey	50	0.800	2030772
107/R	Pg 21 /16	l. grey	50	0.650	2030780
107/R	Pg 29 /16	l. grey	50	1.460	2030799
107/R	Pg 29 /21	l. grey	25	1.500	2030802
107/R	Pg 36 /21	l. grey	25	2.350	2030829
107/R	Pg 36 /29	l. grey	25	2.200	2030810
107/R	Pg 42 /29	l. grey	25	2.350	2030837

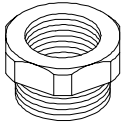


Nom. size	G1 mm	G2 mm	L1 mm	L2 mm	L3 mm	D mm	SS mm	E mm
Pg 11 / 7	Pg 11	Pg 7	8	6	9.5	7.5	22	24
Pg 13.5/ 9	Pg 13.5	Pg 9	8.5	6	9.5	9.5	24	26
Pg 16 / 9	Pg 16	Pg 9	9.5	6	11.5	9.5	27	29
Pg 16 /11	Pg 16	Pg 11	9.5	6	11	11.5	27	29
Pg 21 /11	Pg 21	Pg 11	10.5	5	11	11.5	32	35.5
Pg 21 /13.5	Pg 21	Pg 13.5	10.5	5	11	13.5	32	35.5
Pg 21 /16	Pg 21	Pg 16	10.5	5	11	16.5	32	35.5
Pg 29 /16	Pg 29	Pg 16	12	6	12.5	16.5	40	43
Pg 29 /21	Pg 29	Pg 21	12.5	6	13.5	21.5	39	43
Pg 36 /21	Pg 36	Pg 21	13	6	13.5	21	50	54
Pg 36 /29	Pg 36	Pg 29	18	6	18	28.5	50	54
Pg 42 /29	Pg 42	Pg 29	16	6	17	27.5	55	59

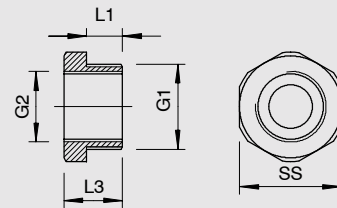
107/R: Reducer  
Pg internal and external thread to DIN 40430

PA Polyamide, light grey (RAL 7035)

## Reducers



Type	Connect- ing/internal thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
107/R M	M 20/ M 12	l. grey	100	0.500	2030616
107/R M	M 20/ M 16	l. grey	100	0.700	2030619
107/R M	M 25/ M 12	l. grey	100	0.850	2030624
107/R M	M 25/ M 16	l. grey	100	0.850	2030626
107/R M	M 25/ M 20	l. grey	100	0.650	2030628
107/R M	M 32/ M 12	l. grey	50	1.200	2030632
107/R M	M 32/ M 16	l. grey	50	1.100	2030634
107/R M	M 32/ M 20	l. grey	50	1.050	2030637
107/R M	M 32/ M 25	l. grey	50	1.000	2030640
107/R M	M 40/ M 16	l. grey	50	2.000	2030643
107/R M	M 40/ M 20	l. grey	50	1.850	2030646
107/R M	M 40/ M 25	l. grey	50	1.950	2030649
107/R M	M 40/ M 32	l. grey	50	1.400	2030652
107/R M	M 50/ M 20	l. grey	25	2.300	2030655
107/R M	M 50/ M 25	l. grey	25	2.250	2030659
107/R M	M 50/ M 32	l. grey	25	2.200	2030661
107/R M	M 50/ M 40	l. grey	25	2.050	2030664
107/R M	M 63/ M 25	l. grey	25	3.050	2030667
107/R M	M 63/ M 32	l. grey	25	3.070	2030670
107/R M	M 63/ M 40	l. grey	25	3.100	2030673
107/R M	M 63/ M 50	l. grey	25	3.000	2030675

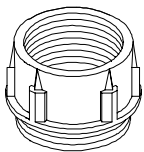


Nom. size	G1 mm	G2 mm	L1 mm	L3 mm	SS mm
M 20/ M 12	M 20 x 1.5	M 12 x 1.5	8.0	12.0	24.0
M 20/ M 16	M 20 x 1.5	M 16 x 1.5	8.0	12.0	24.0
M 25/ M 12	M 25 x 1.5	M 12 x 1.5	8.0	14.0	32.0
M 25/ M 16	M 25 x 1.5	M 16 x 1.5	8.0	14.0	32.0
M 25/ M 20	M 25 x 1.5	M 20 x 1.5	8.0	14.0	32.0
M 32/ M 12	M 32 x 1.5	M 12 x 1.5	10.0	16.0	36.0
M 32/ M 16	M 32 x 1.5	M 16 x 1.5	10.0	16.0	36.0
M 32/ M 20	M 32 x 1.5	M 20 x 1.5	10.0	16.0	36.0
M 32/ M 25	M 32 x 1.5	M 25 x 1.5	10.0	16.0	36.0
M 40/ M 16	M 40 x 1.5	M 16 x 1.5	10.0	16.0	46.0
M 40/ M 20	M 40 x 1.5	M 20 x 1.5	10.0	16.0	46.0
M 40/ M 25	M 40 x 1.5	M 25 x 1.5	10.0	16.0	46.0
M 40/ M 32	M 40 x 1.5	M 32 x 1.5	10.0	16.0	46.0
M 50/ M 20	M 50 x 1.5	M 20 x 1.5	12.0	18.0	55.0
M 50/ M 25	M 50 x 1.5	M 25 x 1.5	12.0	18.0	55.0
M 50/ M 32	M 50 x 1.5	M 32 x 1.5	12.0	18.0	55.0
M 50/ M 40	M 50 x 1.5	M 40 x 1.5	12.0	18.0	55.0
M 63/ M 25	M 63 x 1.5	M 25 x 1.5	12.0	18.0	68.0
M 63/ M 32	M 63 x 1.5	M 32 x 1.5	12.0	18.0	68.0
M 63/ M 40	M 63 x 1.5	M 40 x 1.5	12.0	18.0	68.0
M 63/ M 50	M 63 x 1.5	M 50 x 1.5	12.0	18.0	68.0

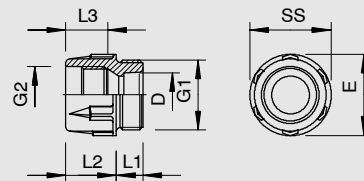
107/R M...: Reducer with metric internal and external thread.

PA Polyamide, light grey (RAL 7035)

## Reducing adapters



Type	Connecting/ internal thread	Colour	Pack qty	Weight kg/100	Ord. no. PA
107/RZ	Pg 9 / 7	l. grey	100	0.400	2031302
107/RZ	Pg 11 / 9	l. grey	100	0.380	2031329
107/RZ	Pg 13.5/ 9	l. grey	100	0.400	2031337
107/RZ	Pg 13.5/11	l. grey	100	0.480	2031345
107/RZ	Pg 16 / 11	l. grey	50	0.560	2031361
107/RZ	Pg 16 / 13.5	l. grey	50	0.620	2031388
107/RZ	Pg 21 / 16	l. grey	50	0.780	2031418
107/RZ	Pg 29 / 21	l. grey	25	1.380	2031442

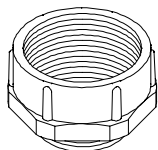


Nom. size	G1 mm	G2 mm	L1 mm	L2 mm	L3 mm	D mm	SS mm	E mm
Pg 9 / 7	Pg 9	Pg 7	7.5	12.5	10	7.5	19	21
Pg 11 / 9	Pg 11	Pg 9	9	14	11.7	10	19	23
Pg 13.5/ 9	Pg 13.5	Pg 9	9	14.5	11.7	12	19	25
Pg 13.5/11	Pg 13.5	Pg 11	9	15	11.8	12	22	25
Pg 16 / 11	Pg 16	Pg 11	11	15.5	11.8	12	22	28
Pg 16 / 13.5	Pg 16	Pg 13.5	11	16.5	12.9	14	24	28
Pg 21 / 16	Pg 21	Pg 16	11	17	13.5	15.5	27	34
Pg 29 / 21	Pg 29	Pg 21	12	21	17.4	21	33	44

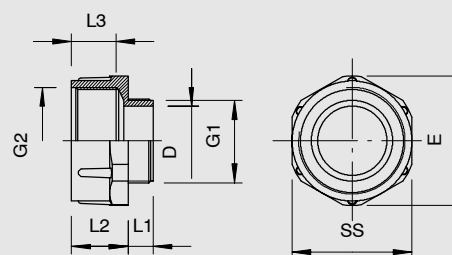
107/RZ: Reducing adapter, Pg internal and external thread to DIN 40430

PA Polyamide, light grey (RAL 7035)

## Enlarging adapters



Type	Connecting/ internal thread	Colour	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
<b>107/EZ</b>	Pg 9 /11	l. grey	100	0.400	<b>2030896</b>
<b>107/EZ</b>	Pg 11 /13.5	l. grey	100	0.420	<b>2030934</b>
<b>107/EZ</b>	Pg 13.5/16	l. grey	100	0.620	<b>2030950</b>
<b>107/EZ</b>	Pg 16 /21	l. grey	50	0.940	<b>2030977</b>
<b>107/EZ</b>	Pg 21 /29	l. grey	50	1.650	<b>2030993</b>
<b>107/EZ</b>	Pg 29 /36	l. grey	25	2.600	<b>2030985</b>

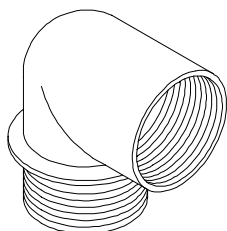


Nom. size	G1	G2	L1	L2	L3	D	SS	E
Pg 9 /11	Pg 9	Pg 11	9	16	11.5	10	22	25
Pg 11 /13.5	Pg 11	Pg 13.5	8	15	12	13.5	24	26
Pg 13.5/16	Pg 13.5	Pg 16	9	16.5	13.5	15	27	29.5
Pg 16 /21	Pg 16	Pg 21	9	20	14.5	16	32	35.5
Pg 21 /29	Pg 21	Pg 29	10	22	16.5	22	42	45.5
Pg 29 /36	Pg 29	Pg 36	11	25	20	30.5	53	57

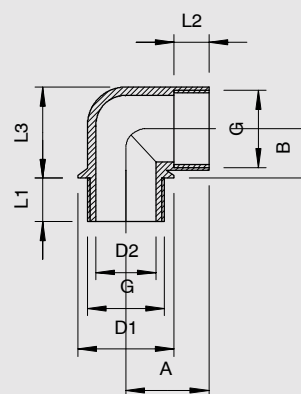
**107/EZ:** Enlarging adapter, Pg internal and external thread to DIN 40430

**PA** Polyamide, light grey (RAL 7035)

## 90° elbow



Type	Connect- ing/internal thread	Colour	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
<b>107/W</b>	Pg 9	l. grey	50	0.390	<b>2029901</b>
<b>107/W</b>	Pg 11	l. grey	50	0.620	<b>2029928</b>
<b>107/W</b>	Pg 13.5	l. grey	50	0.750	<b>2029936</b>
<b>107/W</b>	Pg 16	l. grey	50	0.950	<b>2029944</b>
<b>107/W</b>	Pg 21	l. grey	25	1.470	<b>2029952</b>
<b>107/W</b>	Pg 29	l. grey	25	3.300	<b>2029960</b>



Ext. and int. thread G	A mm	B mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm
Pg 9	18.5	10.5	19.5	11.5	11	9	19
Pg 11	20	12	23.5	15	11	9.5	22
Pg 13.5	22	13	25.5	16	11.5	10	24
Pg 16	24	15	27.5	18.5	11.5	11	27
Pg 21	28	18	34	24	13	13	33
Pg 29	35	23.5	44	32	15	14.5	43.5

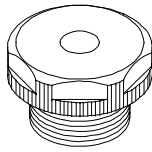
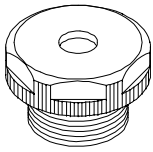
**107/W:** Elbow, Pg internal and external thread to DIN 40430

The elbow can be converted into an angled cable gland with two steel compression rings 107/D, one gasket 107/A or 107/B and one threaded bush 107/E.

**PA** Polyamide, light grey (RAL 7035)



## Threaded nipples

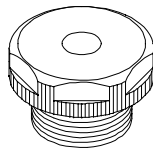
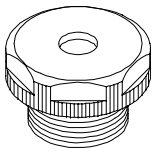


Type	Connect- ing/internal thread	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PE</b>
<b>90</b>	Pg 9	2700	100	0.192	<b>2032090</b>
<b>90</b>	Pg 11	2700	100	0.200	<b>2032112</b>
<b>90</b>	Pg 13.5	1800	100	0.268	<b>2032139</b>
<b>90</b>	Pg 16	1800	100	0.325	<b>2032163</b>
<b>90</b>	Pg 21	500	50	0.513	<b>2032201</b>
<b>90</b>	Pg 29	250	25	0.694	<b>2032295</b>
<b>90</b>	Pg 36	100	10	0.875	<b>2032368</b>

With opening

Type	Connect- ing/internal thread	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PE</b>
<b>90</b>	Pg 9	2700	100	0.192	<b>2032503</b>
<b>90</b>	Pg 11	2700	100	0.200	<b>2032511</b>
<b>90</b>	Pg 13.5	1800	100	0.268	<b>2032538</b>
<b>90</b>	Pg 16	1800	100	0.325	<b>2032546</b>
<b>90</b>	Pg 21	500	50	0.513	<b>2032554</b>
<b>90</b>	Pg 29	250	25	0.694	<b>2032562</b>
<b>90</b>	Pg 36	100	10	0.875	<b>2032570</b>

With push-through membrane

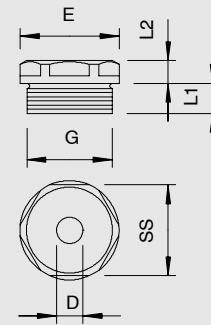


Type	Thread	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PE</b>
<b>90 M</b>	M12x1.5	2700	100	0.170	<b>2032007</b>
<b>90 M</b>	M16x1.5	2700	100	0.192	<b>2032011</b>
<b>90 M</b>	M20x1.5	1800	100	0.268	<b>2032015</b>
<b>90 M</b>	M25x1.5	500	50	0.513	<b>2032019</b>
<b>90 M</b>	M32x1.5	250	25	0.694	<b>2032023</b>
<b>90 M</b>	M40x1.5	100	10	0.875	<b>2032031</b>

With opening

Type	Thread	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PE</b>
<b>90 M</b>	M12x1.5	2700	100	0.170	<b>2032378</b>
<b>90 M</b>	M16x1.5	2700	100	0.192	<b>2032380</b>
<b>90 M</b>	M20x1.5	1800	100	0.268	<b>2032382</b>
<b>90 M</b>	M25x1.5	500	50	0.513	<b>2032384</b>
<b>90 M</b>	M32x1.5	250	25	0.694	<b>2032386</b>
<b>90 M</b>	M40x1.5	100	10	0.875	<b>2032388</b>

With push-through membrane



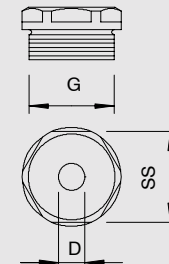
Nom. size G	For cable Ø mm	D mm	SS mm	E mm	L1 mm	L2 mm
Pg 9	5 - 9	4	17	19	9.5	6
Pg 11	6 - 10	5	19	21	9.5	6
Pg 13.5	8 - 13	7	22	24	9.5	6
Pg 16	8 - 13	7	24	26	9.5	6
Pg 21	10 - 16	9	30	33	11.5	6
Pg 29	16 - 23	15	37	40	11.5	6
Pg 36	24 - 29	22	-	56	19	11

**90:** Choke seal to be screwed into Pg thread to DIN 40430  
With self-sealing cone at the thread end.  
Protection achievable with careful assembly IP 54

2 patterns:

- a) with open cable entry
- b) with push-through membrane. Here the opening D is pre-embossed, but initially closed.

**PE** Polyethylene, light grey (RAL 7035)



Nom. size G	For cable Ø mm	SS mm	D mm
M12x1.5	3- 6	13	3.5
M16x1.5	5- 9	16	5
M20x1.5	8-13	21	7
M25x1.5	10-16	30	8.5
M32x1.5	16-23	34	13
M40x1.5	24-29	44	16

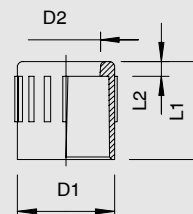
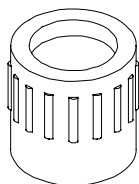
**90 M...:** Choke seal to be screwed into metric thread to IEC 423  
With self-sealing cone at the thread end.  
Protection achievable with careful assembly IP 54

2 patterns:

- a) with open cable entry
- b) with push-through membrane. Here the opening D is pre-embossed, but initially closed.

**PE** Polyethylene, light grey (RAL 7035)

## End grommets for steel conduit



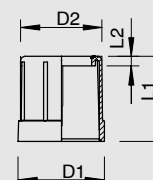
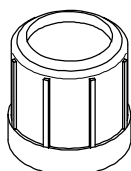
Type	Nom. size	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PE
129	Pg 7	l. grey	1000	100	0.145	2044072
129	Pg 9	l. grey	1000	100	0.235	2044099
129	Pg 11	l. grey	1000	100	0.276	2044110
129	Pg 13.5	l. grey	1200	100	0.326	2044137
129	Pg 16	l. grey	1200	100	0.400	2044161
129	Pg 21	l. grey	600	50	0.614	2044218
129	Pg 29	l. grey	600	50	1.070	2044293
129	Pg 36	l. grey	600	50	1.444	2044366
129	Pg 42	l. grey	600	25	2.176	2044420
129	Pg 48	l. grey	600	25	2.808	2044471

Type	Nom. size	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PE
129	Pg 7	black	1000	100	0.145	2044579
129	Pg 9	black	1000	100	0.235	2044595
129	Pg 11	black	1000	100	0.276	2044617
129	Pg 13.5	black	1200	100	0.326	2044633
129	Pg 16	black	1200	100	0.400	2044668
129	Pg 21	black	600	50	0.614	2044714
129	Pg 29	black	600	50	1.070	2044781
129	Pg 36	black	600	50	1.444	2044862
129	Pg 42	black	600	25	2.176	2044927
129	Pg 48	black	600	25	2.808	2044986

Nom. size	For conduit Ø mm	D1 mm	D2 mm	L1 mm	L2 mm
Pg 7	12.5	15.8	10	17	3.5
Pg 9	15.2	18.3	12	20	4
Pg 11	18.6	21.7	15	22	4
Pg 13.5	20.4	23.5	16	24	4
Pg 16	22.5	25.6	18	26	4
Pg 21	28.3	31.6	24	30	4
Pg 29	37	40.3	32.5	38	4
Pg 36	47	50.8	40	44	4
Pg 42	54	58.2	46	50	4
Pg 48	59.3	63.9	50	56	4

**129:** Cable protection grommet to be fitted to steel conduit to DIN 49020 and medium and heavy-duty plastic conduits to DIN 49016

**PE** Polyethylene, light grey (RAL 7035), black



Type	Nom. size	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PE
129 M	M12	l. grey	1000	100	0.145	2047802
129 M	M16	l. grey	1000	100	0.235	2047810
129 M	M20	l. grey	1200	100	0.326	2047829
129 M	M25	l. grey	600	50	0.614	2047837
129 M	M32	l. grey	600	50	1.070	2047853
129 M	M40	l. grey	600	50	1.444	2047861
129 M	M50	l. grey	600	25	2.176	2047888
129 M	M63	l. grey	600	25	2.808	2047896

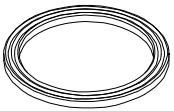
Type	Nom. size	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PE
129 M	M12	black	1000	100	0.145	2047926
129 M	M16	black	1000	100	0.235	2047934
129 M	M20	black	1200	100	0.326	2047942
129 M	M25	black	600	50	0.614	2047950
129 M	M32	black	600	50	1.070	2047969
129 M	M40	black	600	50	1.444	2047977
129 M	M50	black	600	25	2.176	2047985
129 M	M63	black	600	25	2.808	2047993

Nom. size	For conduit Ø mm	D1 mm	D2 mm	L1 mm	L2 mm
M12	12	15.4	9.5	15	2
M16	16	19.4	12.5	18	2
M20	20	23.4	16	22.5	2.5
M25	25	28.4	21	27.5	2.5
M32	32	35.4	27.5	34	3
M40	40	43.4	35	41	3
M50	50	53.4	44.5	48	3
M63	63	66.4	55	59	4

**129 M...:** Cable protection grommet to be fitted to electrical installation conduit to DIN EN 60423 or IEC 423 and other pipes/conduit with the same outside diameters

**PE** Polyethylene, light grey (RAL 7035), black

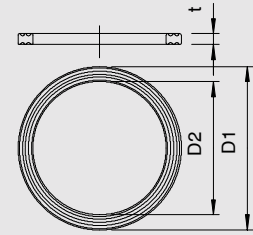
## Tread entry seals



halogen-free  
~~chlorine~~  
~~fluorine~~  
~~bromine~~

Type	Thread	Carton qty	Pack qty	Weight kg/100	Ord. no. PE
107/F	Pg 7	1000	100	0.017	2030071
107/F	Pg 9	1000	100	0.018	2030098
107/F	Pg 11	1000	100	0.029	2030101
107/F	Pg 13.5	1000	100	0.030	2030136
107/F	Pg 16	1000	100	0.038	2030160
107/F	Pg 21	500	50	0.060	2030217
107/F	Pg 29	1000	100	0.105	2030292
107/F	Pg 36	1000	100	0.200	2030365
107/F	Pg 42	1000	100	0.250	2030411
107/F	Pg 48	1000	100	0.290	2030489

Nom. size	D1 mm	D2 mm	t mm
Pg 7	16.5	12.1	1.6
Pg 9	19	14.7	1.6
Pg 11	23	18	1.8
Pg 13.5	25	19.8	1.8
Pg 16	27	21.8	1.8
Pg 21	34	27.5	2.2
Pg 29	44	36.2	2.2
Pg 36	55.5	46.2	2.7
Pg 42	63.5	53.2	3.2
Pg 48	69.5	58.5	3.2



**107/F:** Tread entry seal similar to Part 9 to DIN 46320  
Some dimensions differ owing to material and function  
Suitable for all plastic cable glands with Pg connecting thread to DIN 40430  
The internal diameters of the seals are chosen so that the rings can be captively prefitted.

**PE** Polyethylene

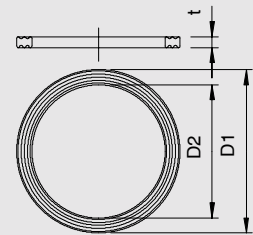


(M)

halogen-free  
~~chlorine~~  
~~fluorine~~  
~~bromine~~

Type	Nom. size	Carton qty	Pack qty	Weight kg/100	Ord. no. PE
107/F M	M12	1000	100	0.017	2030004
107/F M	M16	1000	100	0.018	2030008
107/F M	M20	1000	100	0.030	2030012
107/F M	M25	1000	100	0.060	2030016
107/F M	M32	1000	100	0.105	2030020
107/F M	M40	1000	100	0.200	2030024
107/F M	M50	1000	100	0.250	2030028
107/F M	M63	1000	100	0.290	2030032

Nom. size	D1 mm	D2 mm	t mm
M12	16.3	12	1
M16	20.9	16	1.1
M20	25.1	20	1.1
M25	31.3	25	1.4
M32	37.6	32	1.4
M40	49.1	40	1.7
M50	60.1	50	2
M63	73.8	63	2



**107/F M:** Thread entry seal  
Suitable for all plastic cable glands with metric connecting thread to DIN EN 60423 or ISO 68  
The internal diameters of the seals are chosen so that the rings can be captively prefitted.

**PE** Polyethylene, natural

# Halogen-free components

## VBS. Fastening systems

Multi-Quick metric

Plastic clips

Plastic pipe clips

Push-fit clips

OBO Grip

Pressure clips

Insulating pressure and grip saddles

Fixing clips

Insulating cable clips

OBO stick-on clips

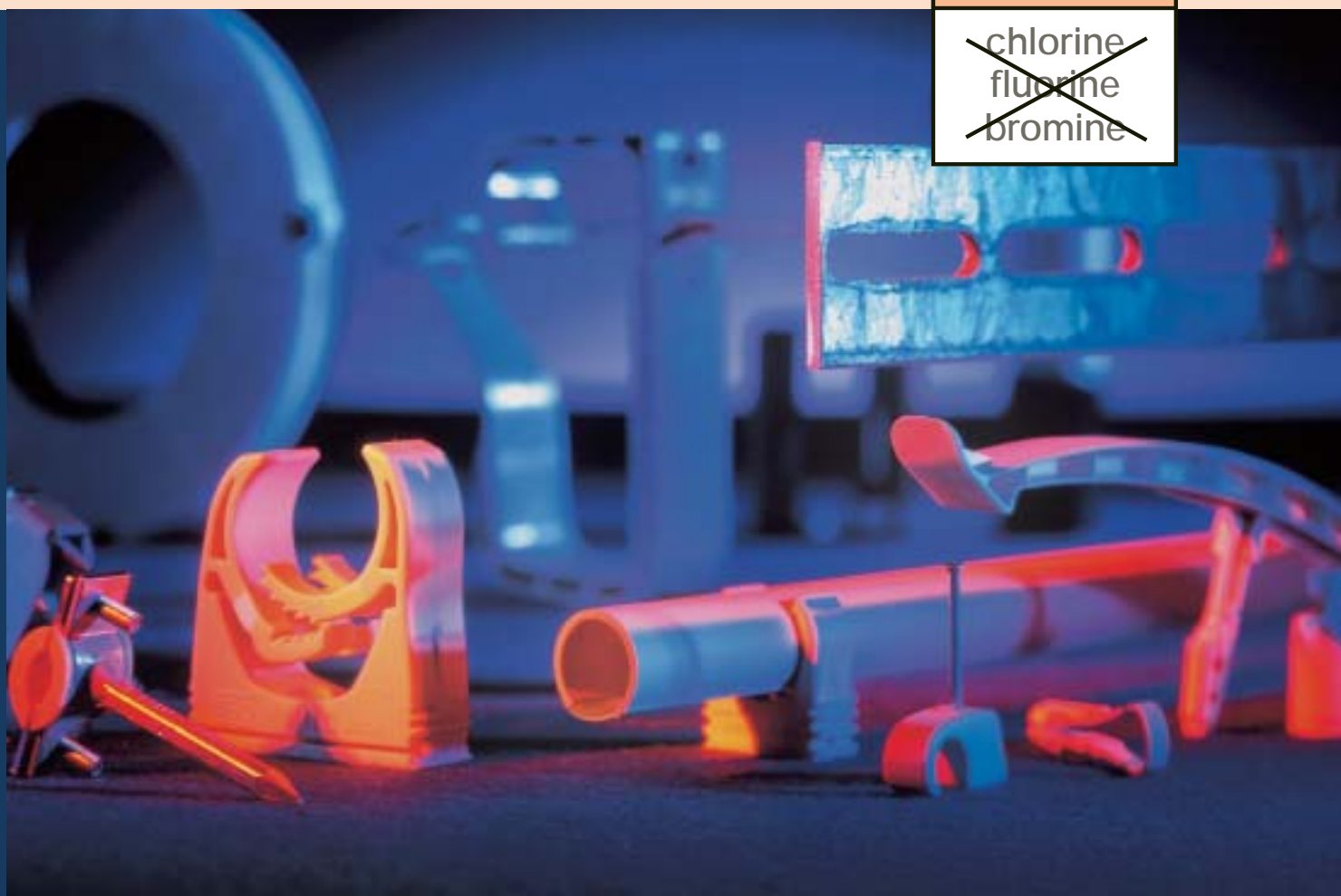
Cable ties

Ribbon conductor accessories

Installation strap

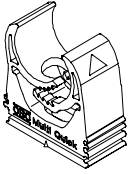
halogen-free

~~chlorine  
fluorine  
bromine~~



**OBO**  
BETTERMANN

**OBO Multi-Quick® clips**



Type	Clamping range mm	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. PA
<b>M-Quick 1</b>	15 -19	l. grey	1200	100	0.545	<b>2153106</b>
<b>M-Quick 2</b>	18.5-22.5	l. grey	1200	100	0.750	<b>2153114</b>
<b>M-Quick 3</b>	25 -28.5	l. grey	800	100	1.120	<b>2153130</b>
<b>M-Quick 4</b>	31 -37	l. grey	500	50	1.780	<b>2153157</b>



	M-Quick 1	M-Quick 2
Clamping range	15-19 mm	18.5-22.5 mm
Heavy conduits	Pg 9/Pg 11	Pg 11/Pg 13.5/Pg 16
Light plastic conduits	Iro 13.5/Iro 16	Iro 16
Metr. conduits IEC 423	M 16	M 20
Holland conduits	16 mm (5/8")/19 mm (3/4")	-

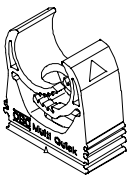
  

	M-Quick 3	M-Quick 4
Clamping range	25-28.5 mm	31-37 mm
Heavy conduits	Pg 21	Pg 29
Light plastic conduits	Iro 23	Iro 29
Metr. conduits IEC 423	M 25	M 32
Holland conduits	25 mm (1")	-

**M-Quick.:**

- Pg and metric
- Simple to fix
- Secure latching
- Radial alignment
- Simplified stock-control
- Clamping ranges from 15-37 mm
- Can be used universally
- Fixing to OBO rails types 2060 and 2061

**PA** Polyamide, light grey (RAL 7035)



Type	Clamping range mm	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. PA
<b>M-Quick ME16/20</b>	16-20	l. grey	1200	100	0.150	<b>2153718</b>
<b>M-Quick ME20/25</b>	20-25	l. grey	800	100	0.240	<b>2153726</b>
<b>M-Quick ME25/32</b>	25-32	l. grey	600	80	0.310	<b>2153734</b>



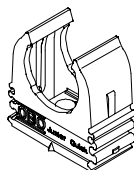
	M-Quick ME 16/20	M-Quick ME 20/25	M-Quick ME 25/32
Clamping range	16-20 mm	20-25 mm	25-32 mm
Heavy conduits	Pg 11/Pg 13.5	Pg 13.5/Pg 16	Pg 21
Light plastic conduits	Iro 16	Iro 23	Iro 23/Iro 29
Metr. con. IEC 423	M 16/M 20	M 20/M 25	M 25/M 32

**M-Quick ME.:**

- Metric
- Simple to fix
- Secure latching
- Radial alignment
- Simplified stock-control
- Clamping ranges from 16-32 mm
- Can be used universally
- Fixing to OBO rails types 2060 and 2061

**PA** Polyamide, light grey (RAL 7035)

## OBO Junior-Quick® clip

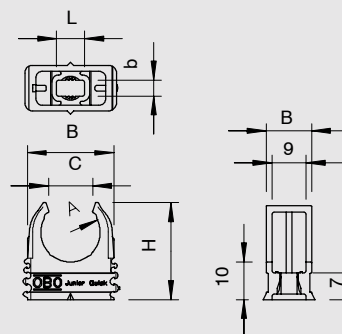


halogen-free  
~~chlorine~~  
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~~bromine~~

Type	Nom. size metr. con.	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2950/...	M 16	l. grey	1300	100	0.260	2154102
2950/...	M 20	l. grey	1200	100	0.330	2154129
2950/...	M 25	l. grey	1200	100	0.430	2154277
2950/...	M32	l. grey	600	50	0.580	2154285
2950/...	M40	l. grey	600	50	1.127	2154289
2950/...	M50	l. grey	200	25	1.965	2154293
2950/...	M63	l. grey	160	20	2.717	2154297

Type	Nom. size Pg conduits	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2950/...	Pg 9	l. grey	1300	100	0.260	2154102
2950/...	Pg 11	l. grey	1200	100	0.310	2154110
2950/...	Pg 13.5	l. grey	1200	100	0.330	2154129
2950/...	Pg 16	l. grey	1200	100	0.370	2154137
2950/...	Pg 21	l. grey	1200	100	0.490	2154145
2950/...	Pg 29	l. grey	600	50	0.720	2154153

Type	Nom. size plastic conduits	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2950/...	Iro 13.5	l. grey	1300	100	0.260	2154102
2950/...	Iro 16	l. grey	1200	100	0.310	2154110
2950/...	Iro 23	l. grey	1200	100	0.430	2154277
2950/...	Iro 29	l. grey	600	50	0.580	2154285
2950/...	Iro 36	l. grey	600	50	0.720	2154153

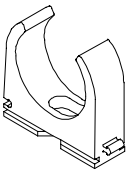


Nom. size	A mm	B mm	C mm	H mm	L mm	B mm	b mm
M16 / Pg 9 / Iro 13.5	14.9	22	10.6	24.85	7	12	4.2
Pg 11 / Iro 16	17.5	25.4	12.4	27.45	8	12	4.2
M20 / Pg 13.5	19.6	27.6	14	29.5	10	12	4.2
Pg 16	22	31.2	16	32	10	12	4.2
M25 / Iro 23	24.5	34.2	17.8	34.25	12	12	4.2
Pg 21	27.6	38.4	19	37.6	12	12	4.2
M32 / Iro 29	30.6	43.2	22	40.3	12	12	4.2
Pg 29 / Iro 36	36	50.6	25	46	12	12	4.2
M40	39.2	57.25	26	51.25	11.1	12.4	6.1
M50	49.2	70.3	32	62.75	12.1	13.4	6.1
M63	61.8	87.36	43	74.3	12.1	15.4	6.1

**OBO Junior-Quick clip type 2950/...**: For steel conduits, light and heavy plastic conduits and metric conduits.  
 Accepts OBO-Quick trunking and OBO Quick-Pipe.  
 Universal fixing; fits together with the Multi-Quick clip. Slotted hole for lateral alignment when fixing with woodscrew or knock-in fixing.  
 Fits M6 thread (except sizes M40, M50, M60).

**PP** Polypropylene, light grey (RAL 7035)

**OBO Quick®-GL clips**



Type	Nom. size metr. con.	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2955 GL	M 12	l. grey	1300	100	0.280	2143216
2955 GL	M 16	l. grey	1200	100	0.292	2143224
2955 GL	M 20	l. grey	1200	100	0.420	2143259
2955 GL	M 25	l. grey	800	100	0.530	2143240
2955GL	M 32	l. grey	600	50	0.750	2143283

Type	Nom. size Pg conduits	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2955 GL	Pg 9	l. grey	1200	100	0.292	2143224
2955 GL	Pg 11	l. grey	1200	100	0.350	2143232
2955 GL	Pg 13.5	l. grey	1200	100	0.420	2143259
2955 GL	Pg 16	l. grey	1200	100	0.500	2143267
2955 GL	Pg 21	l. grey	800	100	0.620	2143275
2955 GL	Pg 29	l. grey	600	50	0.956	2143291

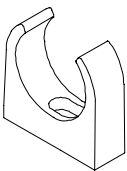
Type	Nom. size Pg conduits	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2955 GL SP	Pg 9	l. grey	1000	200	0.292	2142678
2955 GL SP	Pg 11	l. grey	1000	200	0.350	2142686
2955 GL SP	Pg 13.5	l. grey	1000	200	0.420	2142694
2955 GL SP	Pg 16	l. grey	1000	200	0.500	2142708
2955 GL SP	Pg 21	l. grey	1000	200	0.620	2142716
2955 GL SP	Pg 29	l. grey	500	100	0.960	2142724

Type	Nom. size plastic conduits	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2955 GL	Iro 11	l. grey	1300	100	0.280	2143216
2955 GL	Iro 13.5	l. grey	1200	100	0.292	2143224
2955 GL	Iro 16	l. grey	1200	100	0.350	2143232
2955 GL	Iro 23	l. grey	800	100	0.530	2143240
2955 GL	Iro 29	l. grey	600	50	0.750	2143283
2955 GL	Iro 36	l. grey	600	50	0.956	2143291

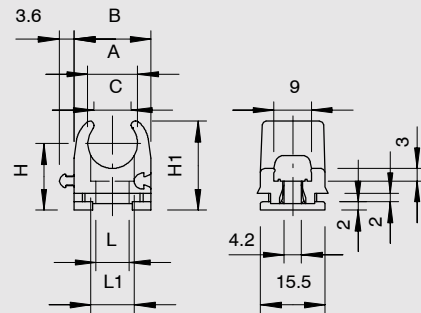
**Accessories available:**

Knock-in fixing	910/SD-Q	see page 92
Push-fit plug	910/STD	see page 93

**OBO Quick® clips**



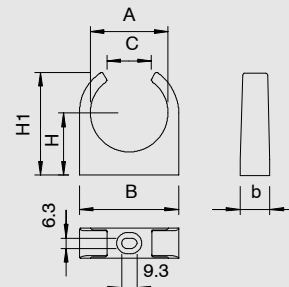
Type	Nom. size	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2955	Pg 36	l. grey	300	25	1.550	2142368
2955	Pg 42	l. grey	200	25	1.900	2142422
2955	Pg 48	l. grey	160	20	2.200	2142481



2955 GL :

Nom. size	A mm	B mm	C mm	H mm	H1 mm	L mm	L1 mm
Iro 11	12	18.5	8.9	16	21.4	6	10.5
M 16/Pg 9/Iro 13.5	15	21.5	11.2	17.5	24.4	6	10.8
Pg 11/Iro 16	18	25.5	13.5	19	26.9	8	12.8
M 20/Pg 13.5	20	28.5	14.5	20	29	11	15.8
Pg 16	22	31	16	21	30.7	12	16.8
M 25/Iro 23	24.6	33.5	18	22.3	33.2	12	16.8
Pg 21	28	37	20	24	36	12	16.8
M 32/Iro 29	31	41	22.2	26.5	39.9	12	16.8
Pg 29/Iro 36	36.5	47.5	26	30.5	46.2	12	16.8

**PP** Polypropylene, light grey (RAL 7035), halogen-free

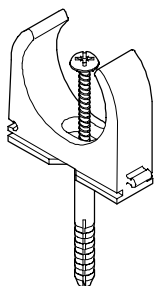


Nom. size	A mm	B mm	b mm	C mm	H mm	H1 mm	Applications Heavy conduits DIN 49016/49020 Size Da
Pg 36	47	60	18	27	37.5	61.9	Pg 36 47
Pg 42	53.5	68	19	33	41	67.8	Pg 42 54
Pg 48	59	74	20	39	43.5	71.6	Pg 48 59.3

**2955:** For steel conduit and heavy plastic conduit. With slotted hole for lateral alignment when fixing with woodscrew or knock-in fixing

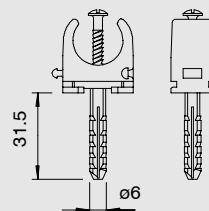
**PP** Polypropylene, light grey (RAL 7035)

## OBO Quick® -GL-SD clips



Type	Nom. size metr. con.	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. <b>PP</b>
2955 GL/SD	M 12	l. grey	1200	100	0.640	2143518
2955 GL/SD	M 16	l. grey	1000	100	0.640	2143526
2955 GL/SD	M 20	l. grey	1000	100	0.780	2143542
2955 GL/SD	M 25	l. grey	1000	100	0.880	2143607
2955 GL/SD	M 32	l. grey	500	50	1.100	2143577

Type	Nom. size Pg conduits	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. <b>PP</b>
2955 GL/SD	Pg 9	l. grey	1000	100	0.640	2143526
2955 GL/SD	Pg 11	l. grey	1000	100	0.700	2143534
2955 GL/SD	Pg 13.5	l. grey	1000	100	0.780	2143542
2955 GL/SD	Pg 16	l. grey	1200	100	0.830	2143550
2955 GL/SD	Pg 21	l. grey	500	50	0.910	2143569
2955 GL/SD	Pg 29	l. grey	500	50	1.300	2143585



Nom. size	A mm	B mm	C mm	H mm	H1 mm	L mm	L1 mm
Iro 11	12	18.5	8.9	16	21.4	6	10.5
M 16/Pg 9	15	21.5	11.2	17.5	24.4	6	10.8
Pg 11	18	25.5	13.5	19	26.9	8	12.8
M 20/Pg 13.5	20	28.5	14.5	20	29	11	15.8
Pg 16	22	31	16	21	30.7	12	16.8
M 25	24.6	33.5	18	22.3	33.2	12	16.8
Pg 21	28	37	20	24	36	12	16.8
M 32	31	41	22.2	26.5	39.9	12	16.8
Pg 29	36.5	47.5	26	30.5	46.2	12	16.8

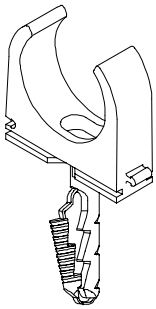
**2955 GL/SD:** With pre-fitted knock-in fixing type 910/SD-Q  
 Clip: Polypropylene, grey (RAL 7035), halogen-free  
 Knock-in fixing: Polyamide, grey, halogen-free  
 Screw: Steel, hardened, electro-galvanised, yellow-chromated

Dimensions of knock-in fixing: 6 x 40 mm,  
 Dimensions of clip: as 2955 GL  
 Just drill a hole, push in the clip/knock-in fixing assembly, drive in the screw. Can be unscrewed at any time.  
 Drill hole to a depth of 40 mm

**PP** Polypropylene, light grey (RAL 7035), halogen-free

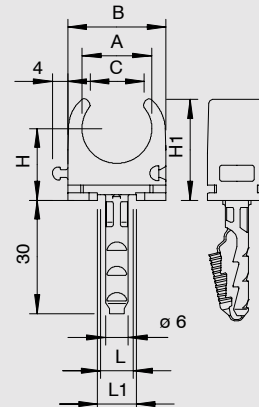


## OBO Quick®-GL-STD clips



Type	Nom. size metr. con.	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. PP
2955 GL/STD	M 12	l. grey	1000	100	0.390	2143895
2955 GL/STD	M 16	l. grey	1000	100	0.390	2143909
2955 GL/STD	M 20	l. grey	1000	100	0.530	2143925
2955 GL/STD	M 25	l. grey	1000	100	0.630	2143941
2955 GL/STD	M 32	l. grey	500	50	0.850	2143976

Type	Nom. size Pg conduits	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. PP
2955 GL/STD	Pg 9	l. grey	1000	100	0.390	2143909
2955 GL/STD	Pg 11	l. grey	1000	100	0.450	2143917
2955 GL/STD	Pg 13.5	l. grey	1000	100	0.530	2143925
2955 GL/STD	Pg 16	l. grey	1000	100	0.580	2143933
2955 GL/STD	Pg 21	l. grey	500	50	0.700	2143968
2955 GL/STD	Pg 29	l. grey	500	50	1.040	2143984



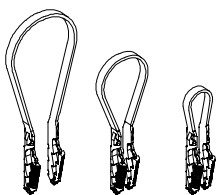
Nom. size	A mm	B mm	C mm	H mm	H1 mm	L mm	L1 mm
Iro 11	12	18.5	8.9	16	21.4	6	10.5
M 16/Pg 9	15	21.5	11.2	17.5	24.4	6	10.8
Pg 11	18	25.5	13.5	19	26.9	8	12.8
M 20/Pg 13.5	20	28.5	14.5	20	29	11	15.8
Pg 16	22	31	16	21	30.7	12	16.8
M 25	24.6	33.5	18	22.3	33.2	12	16.8
Pg 21	28	37	20	24	36	12	16.8
M 32	31	41	22.2	26.5	39.9	12	16.8
Pg 29	36.5	47.5	26	30.5	46.2	12	16.8

**2955 GL/STD:** With pre-fitted push-fit plug type 910/STD  
Clip: Polypropylene, grey (RAL 7035), halogen-free  
Push-fit plug: Polyamide, grey, halogen-free  
Just drill a hole, push in the clip

Drill Ø: 6 mm, hole depth: 35 mm  
Suitable for: concrete, brick and aerated concrete

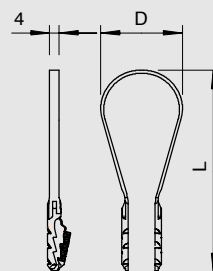
**PP** Polypropylene, light grey (RAL 7035), halogen-free

## BKS clamp

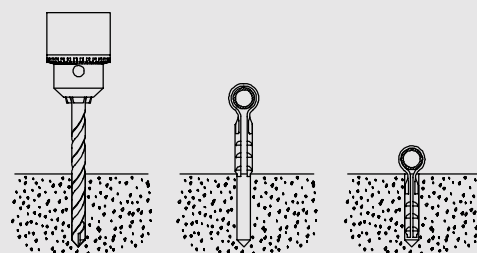


Type	Clamp-ing range mm	Pull-out force	Colour	Pack qty	Weight kg/100	Ord. no. PA
1973/13	3-13	500 N	l. grey	100	0.100	2148803
1973/28	8-28	500 N	l. grey	100	0.130	2148846
1973/40	20-40	500 N	l. grey	100	0.160	2148862

Pull-out force 500 N



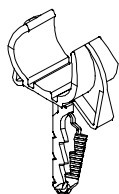
	L mm	D mm	Clamp-ing range mm
1976/13	52	13	3-13
1973/28	70	27	8-28
1973/40	89	36	20-40



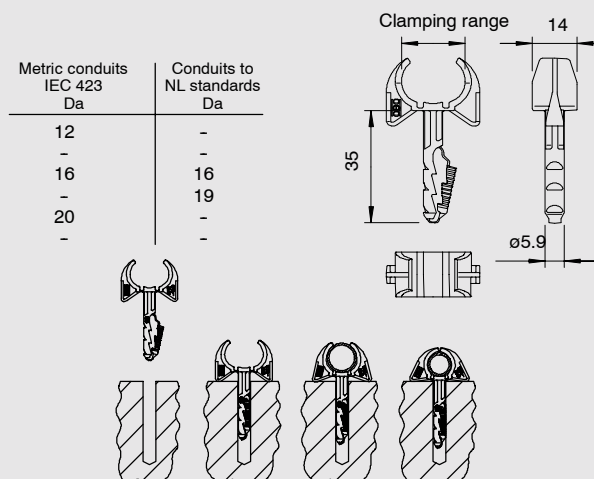
**1973/..:** For cables, flexible pipes/conduits and all kinds of plastic and steel conduits  
Drill Ø: 6 mm, hole depth: 35 mm  
Suitable for concrete, brick and aerated concrete

**PA** Polyamide, light grey (RAL 7035)

## OBO-Snap



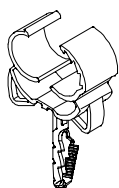
Type	Clamping range mm	Breaking load in concrete B25	Colour	Pack qty	Weight kg/100	Ord. no. PA
1975/15	12-15	90 N	l. grey	100	0.240	2148021
1975/19	16-19	150 N	l. grey	100	0.360	2148048
1975/22.5	19-22.5	90 N	l. grey	100	0.520	2148056



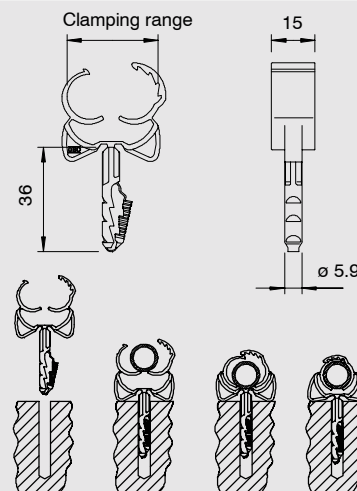
**1975:** With moulded-on push-fit plug for rapid installation in concrete walls and masonry. Drilled hole  $\varnothing$  6 x 40 mm. Push plug into hole until the clip makes contact with the surface. When the pipe/conduit is pressed into the clip, the arms of the clip grip it. Drill  $\varnothing$ : 6 mm, hole depth: 40 mm

**PA** Polyamide, light grey (RAL 7035)

## OBO Quick close clip



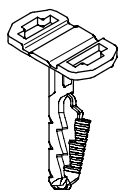
Type	Clamping range mm	Breaking load in concrete B25	Colour	Pack qty	Weight kg/100	Ord. no. PA
1976/15.5	12 -15.5	190 N	l. grey	100	0.245	2148501
1976/21.5	16 -21.5	500 N	l. grey	100	0.470	2148528
1976/28.5	22.5-28.5	500 N	l. grey	100	0.820	2148536



**1976:** With moulded-on push-fit plug for rapid installation in concrete walls and masonry. Drilled hole  $\varnothing$  6 x 40 mm. Push plug into hole until the clip makes contact with the surface. When the pipe/conduit is pressed into the clip, the clip automatically closes and grips it.

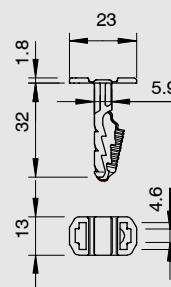
**PA** Polyamide, light grey (RAL 7035)

## Push-fit plug for cable ties



Type	Size/plug length mm	Pack qty	Weight kg/100	Ord. no. PA
910/STK	6 x 30	100	0.012	2351609

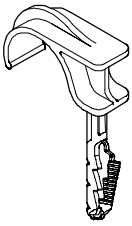
Drilled hole  $\varnothing$ : 6 mm, hole depth: 30 mm



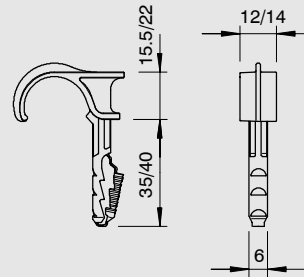
**910/STK:** The plug can accept a cable tie (type 550 or 555) up to 9 mm wide, which can be used to install several cables and pipes/conduits.

**PA** Polyamide, light grey (RAL 7035)

## Single push-fit clip



Type	Clamping range	Colour	Pack qty	Weight kg/100	Ord. no. PA
1974/23	16-23	l. grey	100	0.260	2197804
1974/30	22-30	l. grey	100	0.440	2197812



**1974/...**: These clips are used when installing cables and conduits on walls and ceilings and when running flexible pipes on concrete and in the screed. The single push-fit clips can be used instead of nail clips in concrete and aerated concrete.

The advantage of the push-fit clips is that they only have to be pushed into the drilled hole. Plugs and screws are not needed.

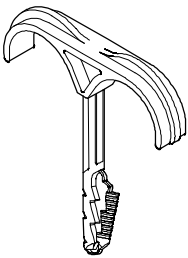
Drill Ø: 6 mm

Drilled hole depth: 35 or 40 mm

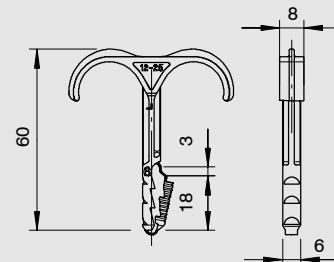
Material: PA 6

**PA** Polyamide, light grey (RAL 7035)

## Double push-fit clip



Type	Clamping range	Colour	Pack qty	Weight kg/100	Ord. no. PA
1974/2 x 12	4-12	l. grey	100	0.140	2197855
1974/2 x 25	12-25	l. grey	100	0.290	2197863



**1974/2:** These clips are used when installing cables and conduits on walls and ceilings and when running flexible pipes on concrete and in the screed. The double push-fit clips can be used instead of nail clips in concrete and aerated concrete.

The advantage of the push-fit clips is that they only have to be pushed into the drilled hole. Plugs and screws are not needed.

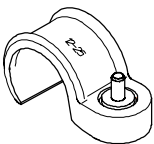
Drill Ø: 6 mm

Drilled hole depth: 35 or 40 mm

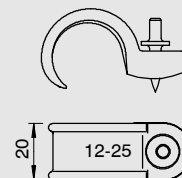
Material: PA 6

**PA** Polyamide, light grey (RAL 7035)

## Set-Clip



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. PP
1999	12-25	100	0.055	2198053

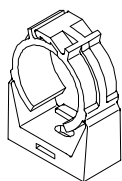


**1999** : The Set-Clip is used for rapid fixing of cables and flexible pipes/ conduits to the concrete floor to keep them in place during building work. The Set-Clip is secured with a pre-fitted hardened OBO anchor type 903/RB which is driven into the concrete floor using a punch, with a few blows from a hammer.

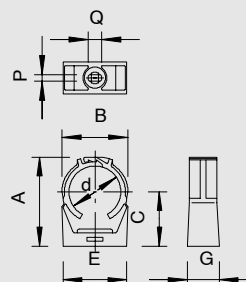
The advantages of this fixing method is that there is no need to drill, insert a plug and fit a screw, thus saving costly operations. Once fixed, objects cannot move from their predetermined positions.

**PP** Polypropylene, light grey (RAL 7035)

# clíc® pipe clips



Type	Clamping range mm	Colour	Car-ton qty	Pack qty	Weight kg/100	Ord. no. PA
1977	12 -14	l. grey	1200	100	0.500	2146061
1977	16 -16.5	l. grey	1200	100	0.510	2146096
1977	16.9-19.8	l. grey	1000	100	0.600	2146118
1977	20 -22	l. grey	800	100	0.690	2146134
1977	22 -23	l. grey	800	100	0.780	2146169
1977	25 -28	l. grey	600	50	0.900	2146207
1977	27.9-31.5	l. grey	600	50	1.020	2146215
1977	32 -35	l. grey	300	25	1.250	2146258
1977	35.6-39.5	l. grey	400	50	1.500	2146290
1977	40 -43.5	l. grey	250	25	1.750	2146320
1977	47 -50.5	l. grey	300	25	1.980	2146363
1977	51 -55	l. grey	100	10	2.250	2146444
1977	59 -63.5	l. grey	120	10	2.480	2146487



Clamping range d mm	A max. mm	B max. mm	C max. mm	E mm	G mm	P mm	Q mm	F N	Static load with screw DIN 96 Ø mm
12 -14	29.9	23.6	18.4	20.2	17.2	3.6	7.6	550	3.5
16 -16.5	30.0	23.7	18.6	20.3	17.2	3.6	6.5	600	3.5
16.9-19.8	35.4	27.0	22.0	22.5	19.5	4.1	8.1	650	4.0
20 -22	39.4	29.5	23.7	24.8	20.0	4.1	8.1	700	4.0
22 -23	40.9	35.1	25.0	29.0	20.0	4.1	7.1	750	4.0
25 -28	45.1	35.8	26.8	30.4	20.0	4.6	9.0	850	4.5
27.9-31.5	48.9	39.7	28.8	33.4	20.2	4.6	9.0	900	4.5
32 -35	54.4	44.7	32.2	38.0	21.0	4.6	9.0	1000	4.5
35.6-39.5	59.4	49.1	35.4	41.8	21.0	4.6	9.0	1100	4.5
40 -43.5	64.2	53.2	36.3	46.2	21.0	4.6	9.0	1150	4.5
47 -50.5	72.8	61.3	40.6	53.5	22.0	4.6	9.0	1300	4.5
51 -55	78.7	67.0	44.3	58.6	23.0	4.6	9.0	1400	4.5
59 -63.5	88.2	76.6	48.6	66.3	23.2	4.6	9.0	1600	4.5

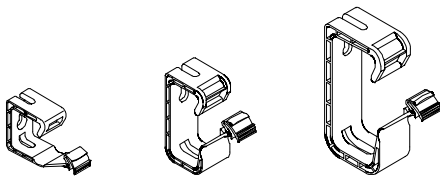
### Minimal breaking load at 20 °C

Clamping range	For steel conduits DIN 49020 and heavy plastic con. DIN 49016	For light plastic conduits to DIN 49017	For light plastic conduits to former DIN 449026	For metric plastic conduits to IEC 423	Suitable for wood-screws
Conduit OD mm	Nom. size mm	Nom. size mm	Nom. size mm	OD mm	Ø mm max.
12 -14	-	11	11	12	3.5
16 -16.5	Pg 9	13.5	13.5	16	3.5
16.9-19.8	Pg 11	16	16	-	4
20 -22	Pg 13.5	19	-	20	4
22 -23	Pg 16	-	-	-	4
25 -28	-	-	23	25	4.5
27.9-31.5	Pg 21	23	29	-	4.5
32 -35	-	-	-	32	4.5
35.6-39.5	Pg 29	-	36	-	4.5
40 -43.5	-	-	-	40	4.5
47 -50.5	Pg 36	-	-	50	4.5
51 -55	Pg 42	-	48	-	4.5
59 -63.5	Pg 48	-	-	63	4.5

**1977:** In the electrical field, these clips (Ø 12-63.5 mm) have been the most widely used type for fixing cables and conduits, because they give quick, secure and inexpensive installations.

**PA** Polyamide

**OBO-GRIP**

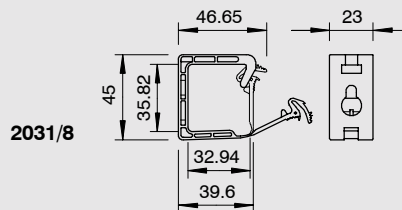


halogen-free  
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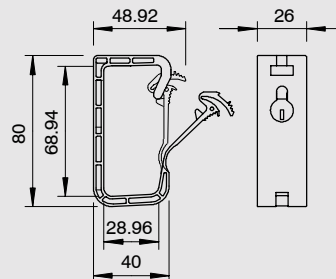
Type	Colour	Pack qty	Weight kg/100	Ord. no. PP
<b>2031/ 8</b>	l. grey	50	0.880	<b>2205203</b>
<b>2031/15</b>	l. grey	50	1.715	<b>2205211</b>
<b>2031/30</b>	l. grey	25	3.450	<b>2205238</b>

**Accessories available:**

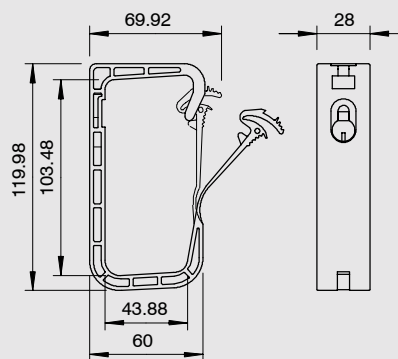
Knock-in fixing 910/SD 6 x 40 see page 91  
Double-flange knock-in fixing 910/DF see page 92



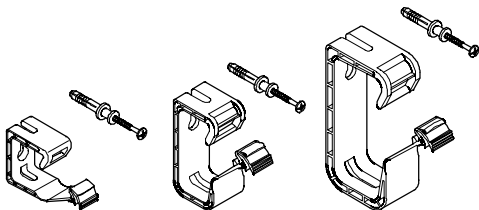
**2031/8**



**2031/15**



**2031/30**



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~~bromine~~

Type	Colour	Pack qty	Weight kg/100	Ord. no. PP
<b>2031/ 8SP</b>	l. grey	100	0.880	<b>2205378</b>
<b>2031/15SP</b>	l. grey	100	1.715	<b>2205386</b>
<b>2031/30SP</b>	l. grey	50	3.450	<b>2205394</b>

With double-flange knock-in fixing

**2031/..** Standard version for general use  
Polypropylene, light grey (RAL 7035), halogen-free

**Capacity:**

2031/ 8 max. 8 cables NYM 3 x 1.5 mm<sup>2</sup>

2031/15 max. 15 cables NYM 3 x 1.5 mm<sup>2</sup>

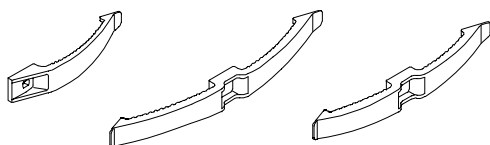
2031/30 max. 30 cables NYM 3 x 1.5 mm<sup>2</sup>

Suitable for wall and ceiling mounting. Fixing holes 6 mm Ø.

Recommended fixing spacing when full: 50-60 cm

**PP** Polypropylene, light grey (RAL 7035)

## Pressure clips

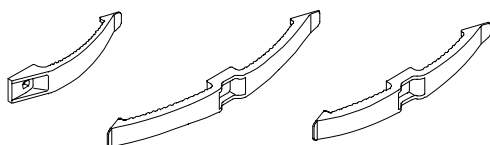


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Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
2032	l. grey	400	50	0.835	2205017
2033	l. grey	300	25	1.924	2205033
2034	l. grey	400	50	0.808	2205041
2032/SP	l. grey	100	50	0.835	2204975
2033/SP	l. grey	100	25	1.924	2204983
2034/SP	l. grey	100	50	0.808	2204991

### Accessories available:

Knock-in fixing 910/SD 6 x 40 see page 91  
 Spacer 2033/D see page 52



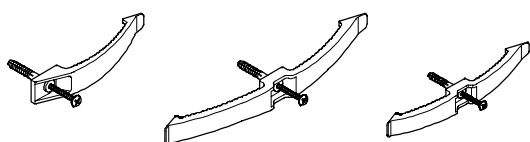
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Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PBPT
2032/F	stone grey	400	50	0.835	2204908
2033/F	stone grey	300	25	1.924	2204916
2034/F	stone grey	400	50	0.808	2204924

### Flame-retardant

#### Accessories available:

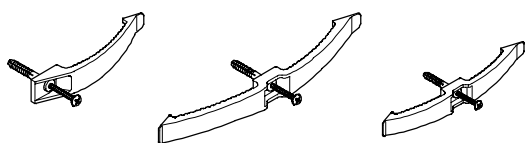
Knock-in fixing 910/SD 6 x 40 see page 91  
 Spacer 2033/D see page 52



halogen-free  
~~chlorine~~  
~~fluorine~~  
~~bromine~~

Type	Colour	Pack qty	Weight kg/100	Ord. no. PA
2032/SD	l. grey	50	1.660	2204800
2033/SD	l. grey	25	2.440	2204819
2034/SD	l. grey	50	1.320	2204827
2032/SD/SP	l. grey	100	1.660	2204851
2033/SD/SP	l. grey	100	2.440	2204878
2034/SD/SP	l. grey	100	1.320	2204886

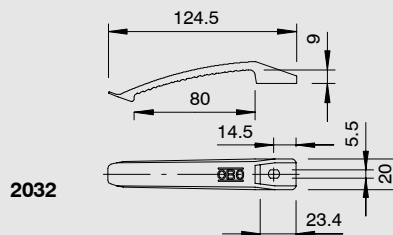
With pre-fitted OBO knock-in fixing Ø 6 mm



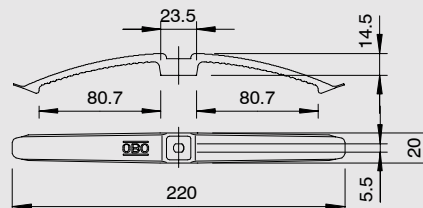
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~~bromine~~

Type	Colour	Pack qty	Weight kg/100	Ord. no. PBPT
2032/FSD	l. grey	50	1.660	2204703
2033/FSD	l. grey	25	2.440	2204711
2034/FSD	l. grey	50	1.320	2204738

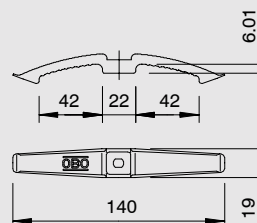
Flame-retardant, with pre-fitted OBO knock-in fixing Ø 6 mm



2032



2033



2034

2032 to 2034: Standard version for general use Polyamide, light grey (RAL 7035), halogen-free

Clip height 9 mm - with spacer 13 mm. Fixing hole 6 mm Ø  
 2032 for max. 8 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2033 for max. 16 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2034 for max. 10 cables NYM 3 x 1.5 mm<sup>2</sup>

2032/F to 2034/F: Flame-retardant version, specially for use in suspended ceilings. Thermoplastic polyester, stone grey (RAL 7030), flame-retardant to VDE 0471/DIN IEC 695 Part 2-1. Test temperature 960°C, or V-O to UL 94, halogen-free

Clip height 9 mm - with spacer 13 mm. Fixing hole 6 mm Ø  
 2032/F for max. 8 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2033/F for max. 16 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2034/F for max. 10 cables NYM 3 x 1.5 mm<sup>2</sup>

2032/SD to 2034/SD: With pre-fitted OBO knock-in fixing 6 mm Ø. Required hole depth 50 mm.

Clip height 9 mm - with spacer 13 mm. Fixing hole 6 mm Ø  
 2032/SD for max. 8 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2033/SD for max. 16 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2034/SD for max. 10 cables NYM 3 x 1.5 mm<sup>2</sup>

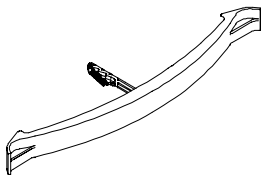
### 2032/FSD to 2034/FSD:

Clip height 9 mm - with spacer 13 mm. Fixing hole 6 mm Ø  
 2032/FSD for max. 8 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2033/FSD for max. 16 cables NYM 3 x 1.5 mm<sup>2</sup>  
 2034/FSD for max. 10 cables NYM 3 x 1.5 mm<sup>2</sup>

**PA** Polyamide, light grey (RAL 7035), halogen-free

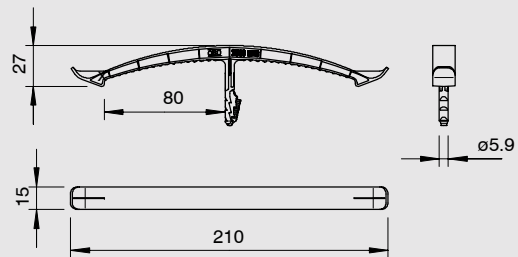
**PBPT** Thermoplastic polyester, stone grey (RAL 7030), flame-retardant to VDE 0471/DIN IEC 695 Part 2-1. Test temperature 960°C, or V-O to UL 94, halogen-free

## Pressure clips



Type	Colour	Pack qty	Weight kg/100	Ord. no. PA
<b>2033 STD</b>	l. grey	25	1.200	<b>2204541</b>

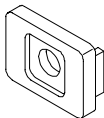
With moulded-on push-fit plug  $\varnothing$  6 mm for max. 16 cables NYM 3 x 1.5 mm<sup>2</sup>  
Flame-retardant version on request



**2033 STD**

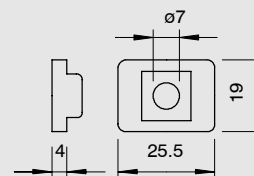
**PA** Polyamide, light grey (RAL 7035)

## Spacer



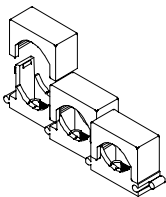
Type	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>2033/D</b>	3000	100	0.215	<b>2205092</b>

To increase the clamping height of OBO pressure clips

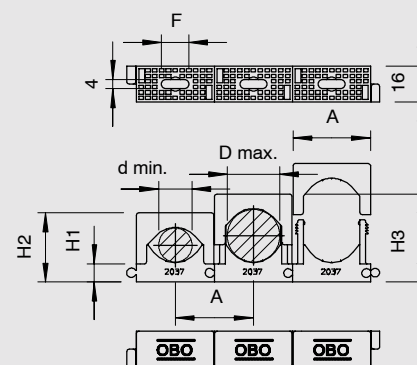


**2033/D**: To increase the clamping height from 9 to 13 mm with thicker cables. Impact-resistant polystyrene, light grey (RAL 7035), halogen-free

## Pressure saddles



Type	Clamping range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
<b>2037</b>	3- 7	l. grey	1000	100	0.257	<b>2250071</b>
<b>2037</b>	6-13	l. grey	1200	100	0.370	<b>2250136</b>
<b>2037</b>	12-20	l. grey	500	50	0.640	<b>2250209</b>
<b>2037</b>	16-24	l. grey	600	50	0.840	<b>2250241</b>
<b>2037</b>	18-30	l. grey	250	25	1.232	<b>2250306</b>
<b>2037</b>	27-43	l. grey	300	25	1.810	<b>2250438</b>



Size	A mm	H1 mm	H2 ca mm	H3 ca mm	d min. mm	D max. mm	F mm
3- 7	14.5	7.5	15.5	19.5	3	7	6
6-13	20	8.5	20	27	6	13	13
12-20	28	8.5	26	34	12	20	14
16-24	34.5	8.5	31	39	16	24	12
18-30	40	9	34	46	18	30	12
27-43	55	10.5	46	62	27	43	15

**2037**: Universal saddle clamp to fix individual cables, wires and pipe. All sizes clip together. With slotted hole, stick-on base and to fit thread M6

**PA** Polyamide, light grey (RAL 7035)

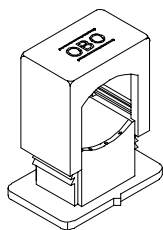
### Accessories available:

Knock-in fixing  
Push-fit plug

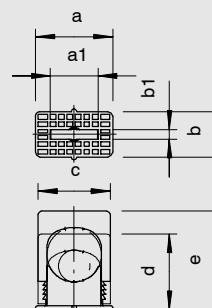
910/SD-Q  
910/STD

see page 92  
see page 93

## Insulating pressure saddles



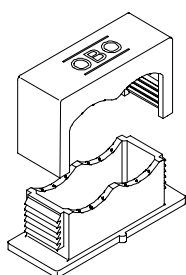
Type	Clamp- ing range mm	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>3050/LGK</b>	7-16	l. grey	800	100	0.484	<b>2101017</b>
<b>3051/LGK</b>	14-24	l. grey	600	50	0.876	<b>2101033</b>
<b>3052/LGK</b>	24-34	l. grey	300	25	1.564	<b>2101068</b>



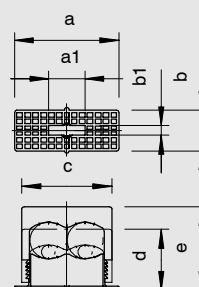
Type	a1 mm	b1 mm	a mm	b mm	c mm	d ca mm	e ca mm
<b>3050/LGK</b>	13	4	28	18	22.5	25	34
<b>3051/LGK</b>	21	4.2	34	20	32	33	43
<b>3052/LGK</b>	16	4.2	45	24	43	43	57

**3050/LGK to 3052/LGK:** With stick-on base, slotted hole and to fit thread M6

**PS** Polystyrene, light grey (RAL 7035)



Type	Clamp- ing range mm	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>3050/2 LGK</b>	2x6-16	l. grey	250	25	1.044	<b>2115018</b>



Type	a1 mm	b1 mm	a mm	b mm	c mm	d ca mm	e ca mm
<b>3050/2 LGK</b>	26	3.8	46	18	40	26	35

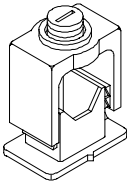
**3050/2 LGK:** For 2 cables, with stick-on base, slotted hole and to fit thread M6

To stick polystyrene saddles to masonry and concrete, use compound 1000.

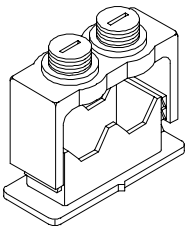
**PS** Polystyrene, light grey (RAL 7035)



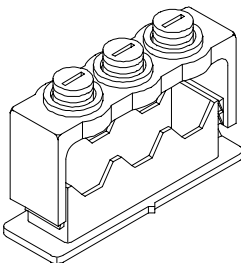
## Insulating grip saddles



Type	Clamp- ing range mm	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>3040/LGK</b>	6-16	l. grey	1000	100	0.744	<b>2105012</b>
<b>3041/LGK</b>	14-24	l. grey	500	50	1.348	<b>2105039</b>
<b>3042/LGK</b>	24-34	l. grey	300	25	2.488	<b>2105055</b>

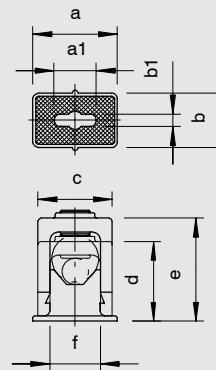


Type	Clamp- ing range mm	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>3040/2 LGK</b>	2x6-16	l. grey	250	25	1.184	<b>2107015</b>
<b>3041/2 LGK</b>	2x16-24	l. grey	300	25	2.292	<b>2107031</b>

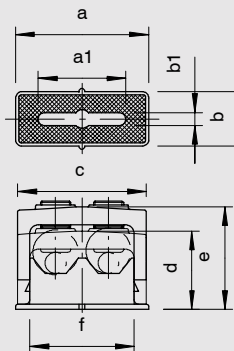


Type	Clamp- ing range mm	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>3040/3 LGK</b>	3x6-16	l. grey	200	25	1.752	<b>2109018</b>

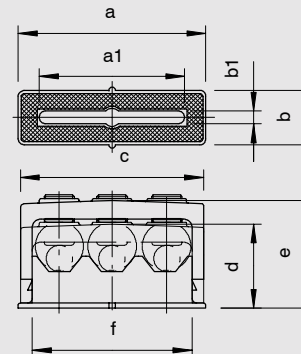
**3040/LGK to  
3042/LGK**



**3040/2 LGK to  
3042/2 LGK**



**3040/3 LGK and  
3042/3 LGK**



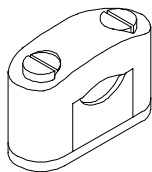
Type	a1 mm	b1 mm	a mm	b mm	c mm	d mm	e mm	f mm
<b>3040/ LGK</b>	13.5	4	28	18	24.5	28	35	20
<b>3041/ LGK</b>	20	4.2	35	22	37	36	44	31
<b>3042/ LGK</b>	14	4.2	50	22	48	49	59	40
<b>3040/2 LGK</b>	29	4.2	44	18	43	28	35	38
<b>3041/2 LGK</b>	46	4.5	63	22	61	37	46	55
<b>3040/3 LGK</b>	48	4	62	18	61	31	38	55

**3040/LGK to 3042/LGK:** Firm cable fixing by clamping screws, with stick-on base, slotted hole and to fit thread M6

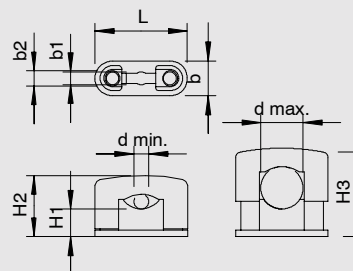
To stick polystyrene saddles to masonry and concrete, use compound 1000.

**PS** Polystyrene, light grey (RAL 7035)

## SOM® saddles



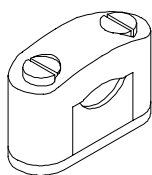
Type	Clamping range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>3079</b>	5-14	l. grey	1000	50	0.524	<b>2124149</b>
<b>3080</b>	6-17	l. grey	600	50	0.926	<b>2124173</b>
<b>3081</b>	15-25	l. grey	300	25	1.860	<b>2124254</b>
<b>3082</b>	24-34	l. grey	250	25	2.544	<b>2124343</b>



Type	L mm	d <sub>min.</sub> mm	d <sub>max.</sub> mm	H1 mm	H2 mm	H3 mm	b mm	b1 mm	b2 mm	Screw
3079	31	5	14	10.5	20	29	12	4.2	5	M 5x14
3080	37	6	17	11	24.5	35.5	14	4	5.2	M 6x18
3081	51	14	25	11.5	33	44	17	5	-	M 8x23
3082	62	22	34	11	40	52	18	5.2	-	M 8x23

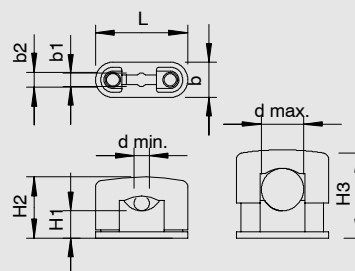
**3079 to 3082:** With plastic (therefore corrosion-proof) screws, with slotted hole for fixing with woodscrews or 5 mm knock-in fixing

**PS** Polystyrene, light grey (RAL 7035)



Type	Clamping range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. UF
<b>3083/B</b>	32-45	l. grey	200	20	5.840	<b>2124459</b>

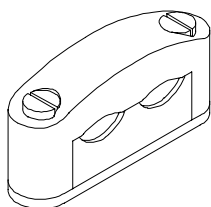
Difficult to ignite



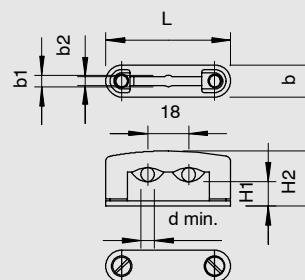
**3083/B**

Type	L mm	d <sub>min.</sub> mm	d <sub>max.</sub> mm	H1 mm	H2 mm	H3 mm	b mm	b1 mm	b2 mm	Screw
3083/B	77	32	45	12	54	57	21	6.5	-	M 8x40

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite



Type	Clamping range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>3080/2</b>	2x6-17	l. grey	500	25	1.272	<b>2124491</b>

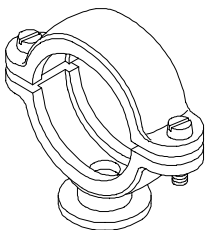


**3080/2**

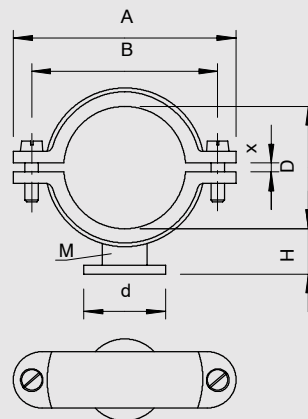
Type	L mm	d <sub>min.</sub> mm	d <sub>max.</sub> mm	H1 mm	H2 mm	H3 mm	b mm	b1 mm	b2 mm	Screw
3080/2	55	6	17	11	24.5	35.5	14	4	5.2	M 6x18

**PS** Polystyrene, light grey (RAL 7035)

## Insulating pedestal clamps



Type	Clamping range mm	Nom. size	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. PS
2960	6 - 8		l. grey	500	50	0.430	2130084
2960	9 - 11		l. grey	500	50	0.465	2130114
2960	12		l. grey	500	50	0.480	2130122
2960	15	Pg 9	l. grey	500	50	0.510	2130157
2960	16.5-18	Pg 11	l. grey	500	50	0.791	2130181
2960	20.5-22	Pg	l. grey	500	50	0.951	2130211
2960	22.5-25	13.5	l. grey	250	25	1.221	2130254
2960	25.5-28	Pg 16	l. grey	250	25	1.341	2130289
2960	31.5-35	Pg 21	l. grey	250	25	1.761	2130351
2960	36.5-40		l. grey	200	20	2.918	2130408
2960	40.5-43	Pg 29	l. grey	200	20	3.098	2130432
2960	45.5-47		l. grey	150	15	4.235	2130475
2960	50.5-54	Pg 36	l. grey	180	15	4.280	2130548
2960	59.5-63	Pg 42	l. grey	100	10	5.285	2130637

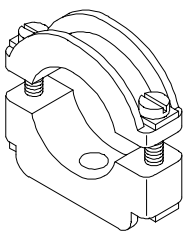


2960

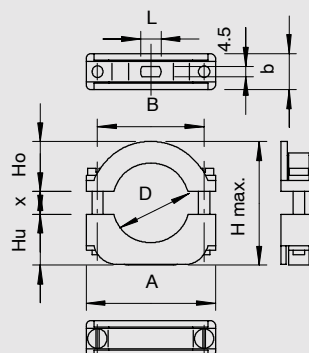
D mm	A mm	B mm	x mm	H mm	d mm	M
6 - 8	35	25	2.4	13.2	17	M 6
9 - 11	35	25	2.2	11.6	17	M 6
12	35	25	-	10	17	M 6
15	38	28	-	11.5	18	M 6
16.5-18	46	34	2	12	20	M 6
20.5-22	50	38	2	14	21	M 6
22.5-25	55	43	3	16	23	M 6
25.5-28	58	46	3	17.5	24	M 6
31.5-35	66	54	4	18.5	28	M 6
36.5-40	80	66	4	23	34	M 6
40.5-43	80	66	3	21	34	M 6
45.5-47	98	82	2	22.5	36	M 6
50.5-54	98	82	4	20	36	M 6
59.5-63	110	92	4	22	36	M 8

**PS** Polystyrene, light grey (RAL 7035)

## Quick-fix insulating saddles



Type	Clamping range mm	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. PS
3015	6-12	l. grey	500	50	1.600	2157128
3015	10-17	l. grey	500	50	1.742	2157179
3015	17-24	l. grey	500	50	2.542	2157241
3015	24-34	l. grey	250	25	3.388	2157349



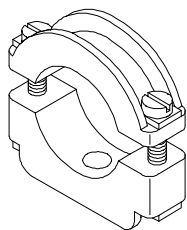
Clamping range	D mm	A mm	B mm	H max. mm	Ho mm	Hu mm	L mm	b mm	Screws
6-12	12	34	24	30	9.5	13.5	7.5	14	M 4x22
10-17	17	38	28	36.5	12	14	7.5	14	M 4x25
17-14	24	47.5	37	43	16	18	10	15	M 4x30
24-34	34	57	47	54.5	22	22	9	16	M 5x35

**Quick-fix insulating saddles:** Plastic saddle with metal inlay, making it suitable for heavy loads. Metal parts of steel, electro-galvanised.

**3015** With 4.5 mm slotted hole

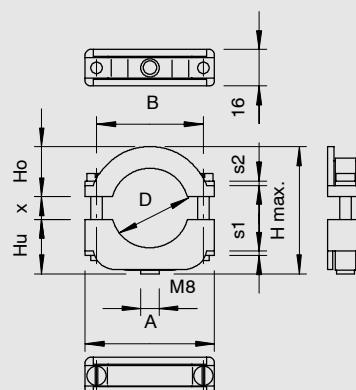
**PS** Polystyrene, light grey (RAL 7035)

## Quick-fix insulating saddles



Type	Clamping range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
<b>3019</b>	6-12	l. grey	500	50	1.564	<b>2158124</b>
<b>3020</b>	10-17	l. grey	500	50	1.588	<b>2158175</b>
<b>3021</b>	17-24	l. grey	250	25	2.632	<b>2158248</b>
<b>3022</b>	24-34	l. grey	250	25	4.176	<b>2158345</b>

With M6 thread

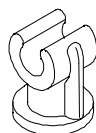


Clamping range	D mm	A mm	B mm	H max. mm	Ho mm	Hu mm	l mm	b mm	x mm	Screws
6-12	12	34	24	32.5	9.5	13.5	22	14	6	M 4x22
10-17	17	38	28	36	12	14	25	14	7	M 4x25
17-14	24	47.5	37	44	16	18	30	15	8	M 4x30
24-34	34	57	47	56	22	22	35	16	10	M 5x35

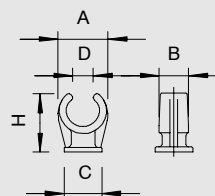
**3019-3022:** With M6 thread

**PS** Polystyrene, light grey (RAL 7035)

## Distance clips



Type	Size	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
<b>2962</b>	6	l. grey	2000	100	0.101	<b>2140063</b>
<b>2962</b>	8	l. grey	2000	100	0.153	<b>2140071</b>
<b>2962</b>	10	l. grey	2000	100	0.174	<b>2140101</b>
<b>2962</b>	12	l. grey	1000	100	0.235	<b>2140128</b>
<b>2962</b>	14-15	l. grey	1000	100	0.356	<b>2140152</b>
<b>2962</b>	16-18	l. grey	1200	100	0.452	<b>2140187</b>
<b>2962</b>	20-22	l. grey	500	50	0.550	<b>2140233</b>
<b>2962</b>	25-28	l. grey	250	25	1.114	<b>2140284</b>
<b>2962</b>	35	l. grey	150	25	1.480	<b>2140357</b>
<b>2962</b>	42	l. grey	250	25	1.880	<b>2140411</b>



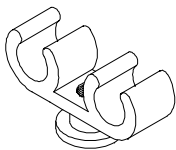
**2962**

d mm	A mm	B mm	C mm	≈H mm
6	11.5	10	13.5	17
8	14	11	14	19
10	16.5	12	15	20.5
12	19	13	16	23
14-15	22	14.5	18	28
16-18	24.5	15.5	20	30
20-22	29.2	17	22	34
25-28	38.8	20	25	41
35	47	22	29	51
42	54	23	32	58

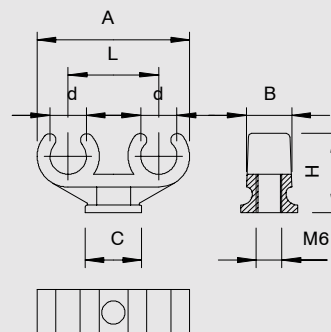
d mm	Bright copper pipe DIN 1754 DIN 1786 DIN 59753 Da (mm)	Insulated copper pipe (Wicu pipe) „Standard“ (with fluted sheath) Cu pipe Da (mm)	Insulation Da (mm)	Insulated copper pipe (Wicu pipe) „Plus“ & „Extra“ (with foam insulation) Cu pipe Da (mm)	Insulation Da (mm)
	6	6	-	-	-
8	8	-	-	-	-
10	10	6	10	-	-
12	12	8	12	-	-
14-15	15	10	14	-	-
16-18	18	12	16	-	-
20-22	22	-	-	-	-
25-28	28	22	27	-	-
35	35	-	-	18	34
42	42	-	-	20	43

**PS** Polystyrene, light grey (RAL 7035)

## Distance clips



Type	Size	Colour	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PP</b>
<b>2962/2</b>	6+6	l. grey	1000	100	0.194	<b>2140551</b>
<b>2962/2</b>	8+8	l. grey	1000	100	0.278	<b>2140586</b>
<b>2962/2</b>	10+10	l. grey	1000	100	0.348	<b>2140608</b>
<b>2962/2</b>	12+12	l. grey	500	50	0.500	<b>2140624</b>
<b>2962/2</b>	12+15/16	l. grey	500	50	0.696	<b>2140640</b>
<b>2962/2</b>	14/15+14/15	l. grey	500	50	0.738	<b>2140659</b>
<b>2962/2</b>	16/18+16/18	l. grey	600	50	0.982	<b>2140683</b>
<b>2962/2</b>	20/22+20/22	l. grey	250	25	1.408	<b>2140721</b>



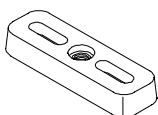
**2962/2**

d mm	A mm	B mm	C mm	L mm	≈H mm
6+6	30.5	10	Ø 15	19	17
8+8	35	11	Ø 15	21	19
10+10	40.5	12	Ø 15	24	21
12+12	46	13	16x27	27	23
12+15/16	52	14.5	18x30	30	28
14/15+14/15	52	14.5	18x30	30	28
16/18+16/18	57.5	15.5	20x33	33	30
20/22+20/22	67	17	22x38	38	34

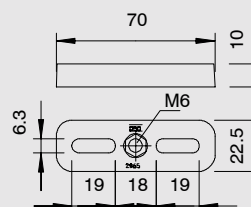
d mm	Bright copper pipe DIN 1754 DIN 1786 DIN 59753 Da (mm)	Insulated copper pipe (Wicu pipe) „Standard“ (with fluted sheath) Cu pipe Da (mm)	Insulation Da (mm)
6+6	6	-	-
8+8	8	-	-
10+10	10	6	10
12+12	12	8	12
12+15/16	12+15	8+12	12+16
14/15+14/15	15	10	14
16/18+16/18	18	12	16
20/22+20/22	22	-	-

**PP** Polypropylene, light grey (RAL 7035)

## Fixing blocks



Type	Height mm	Colour	Pack qty	Weight kg/100	Ord. no. <b>PP</b>
<b>2965</b>	10	l. grey	25	0.760	<b>2139057</b>



**2965:** To install 2 distance clips, including clips for different diameters up to size 19-22 mm or distance clips up to size 25-28 mm side-by-side

The block has an M 6 thread and can be fixed to an anchor or M 6 bolt, as well as with a woodscrew. The distance clips are fixed with M 6 x 16 hexagon screws.

**PP** Polypropylene, light grey (RAL 7035)

## Distance pieces

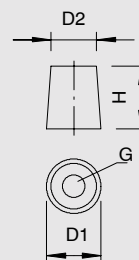


Type	Size	Colour	Pack qty	Weight kg/100	Ord. no. PS
2961	1	l. grey	100	0.440	2145014
2961	2	l. grey	100	0.550	2145022
2961	3	l. grey	50	0.674	2145030
2961	4	l. grey	25	0.880	2145049
2961	5	l. grey	25	1.022	2145057

Sizes 1-5 with M 6 thread  
Size 6 with through hole Ø 8.2 mm

### Suitable for:

Insulating pedestal clamps	2960	see page 56
Distance clips	2962	see page 57
	2962/2	see page 58

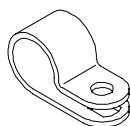


2961

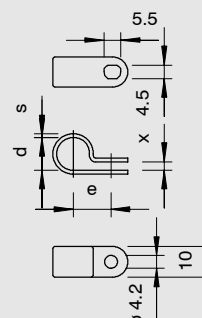
Size	D1 mm	D2 mm	H mm	G
1	21	17	29	M 6
2	24	20	28	M 6
3	24.5	21	26	M 6
4	31	28	23	M 6
5	37	34	20.5	M 6

PS Polystyrene, light grey (RAL 7035)

## Fixing clips



Type	For cable Ø mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
255	3.2	l. grey	9000	100	0.043	2222035
255	5.2	l. grey	9000	100	0.054	2222051
255	6.5	l. grey	7500	100	0.052	2222078
255	8	l. grey	5000	100	0.073	2222086
255	9.5	l. grey	5000	100	0.081	2222094
255	11	l. grey	4000	100	0.096	2222116
255	12.5	l. grey	3000	100	0.115	2222124
255	14	l. grey	3000	100	0.137	2222140
255	16	l. grey	2700	100	0.157	2222167
255	17.5	l. grey	1800	100	0.163	2222175

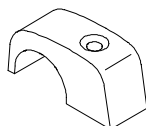


255

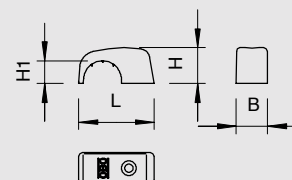
For cable Ø mm	d mm	e mm	s mm	x mm
3.2	3	8.5	1	1.8
5.2	5	9.5	1	1.8
6.5	6.3	10	1	2.2
8	7.8	10	1.2	2.2
9.5	9.3	11	1.2	2.2
11	10.8	13	1.2	2.8
12.5	12.3	14	1.2	2.8
14	13.8	15	1.5	3.2
16	15.8	16	1.5	3.2
17.5	17.2	17	1.5	3.2

PA Polyamide, light grey (RAL 7035)

## Insulating cable clips



Type	For cable Ø mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
4028	2- 4	l. grey	10000	100	0.025	2215047
4029	4- 7	l. grey	9000	100	0.041	2215071
4030	7-11	l. grey	9000	100	0.050	2215101
4031	10-14	l. grey	3000	100	0.104	2215144
4031a	14-17	l. grey	2700	100	0.223	2215179
4032	16-20	l. grey	1800	100	0.275	2215209

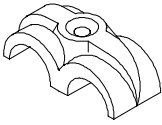


Typ	Clamping range mm	B mm	L mm	H mm	H1 mm
4028	2- 4	7	14.5	4.5	1.5
4029	4- 7	7.2	15	7	3.7
4030	7-11	8.3	20	9.5	6
4031	10-14	10	27	12.5	7.6
4031a	14-17	11	33	15.8	11
4032	16-20	12	37	17.5	12

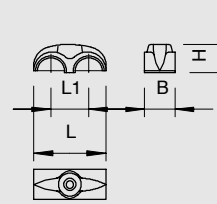
4028 to 4032: "Standard" cable clips, for 2 mm steel nails

PP Polypropylene, light grey (RAL 7035)

## Double insulating cable clips



Type	For cable Ø mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
3029/2	4- 7	l. grey	9000	100	0.056	2213079
3030/2	7-11	l. grey	5000	100	0.102	2213117
3031/2	10-14	l. grey	3000	100	0.165	2213141



Type	Clamping range mm	B mm	L mm	L1 mm	H mm
3029/2	4- 7	8	19	10	7.5
3030/2	7-11	9	27	14	10.5
3031/2	10-14	10	33.4	17	14

3029/2 to 3031/2: Cable clips to fix 2 cables

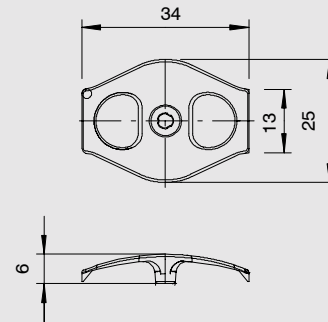
**PS** Polystyrene, light grey (RAL 7035)

## Nail cleat



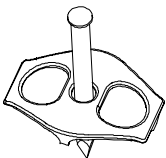
Type	Colour	Pack qty	Weight kg/100	Ord. no. PP
1996/0	natural	100	0.055	2222809

Without nail. To be used with a steel nail  $\varnothing$  3 mm  
For fixing cables in chases in masonry and on masonry. For 1 or 2 cables NYM 3x1.5/2.5 mm<sup>2</sup> or 1 or 2 cables NYM 5x1.5/2.5 mm<sup>2</sup>



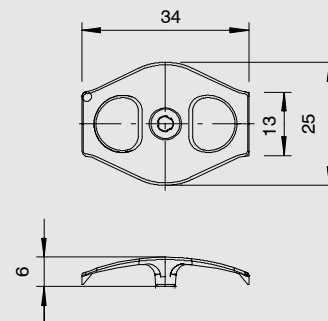
1996/0

**PP** Polypropylene, natural



Type	Colour	Pack qty	Weight kg/100	Ord. no. PP
1996/40	natural	100	0.180	2222833
1996/50	natural	100	0.190	2222841
1996/60	natural	100	0.200	2222868
1996/70	natural	100	0.210	2222876

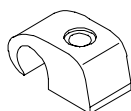
With pre-fitted galvanised steel nail  $\varnothing$  3 mm and 3.5 mm  
For fixing cables in chases in masonry and on masonry. For 1 or 2 cables NYM 3x1.5/2.5 mm<sup>2</sup> or 1 or 2 cables NYM 5x1.5/2.5 mm<sup>2</sup>



1996/..

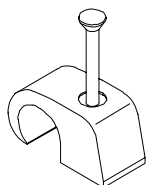
**PP** Polypropylene, natural

## OBO stick-on cable clips



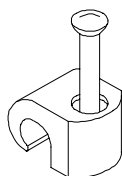
Type	For cable Ø mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
4038	3- 5	l. grey	1000	100	0.024	2215292
4039	4- 7	l. grey	9000	100	0.041	2215306
4039/SP	4- 7	l. grey	10000	200	0.041	2214873
4040	7-12	l. grey	5000	100	0.076	2215314
4040/SP	7-12	l. grey	6000	200	0.076	2214881
4041	10-14	l. grey	3000	100	0.134	2215349
4042	14-17	l. grey	1800	100	0.239	2215322
4043	17-21	l. grey	1200	100	0.336	2215330
4044	21-25	l. grey	600	50	0.290	2215357

**PP** Polypropylene, light grey (RAL 7035)



Type	Nail Ø x l mm	For cable Ø mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2024/20	2x20	3 - 5	l. grey	1000	100	0.033	2228505
2025/18	2x18	4 - 7	l. grey	7500	100	0.084	2228610
2025/25	2x25	4 - 7	l. grey	7500	100	0.101	2228629
2026/18	2x18	7 - 12	l. grey	5000	100	0.109	2228718
2026/25	2x25	7 - 12	l. grey	5000	100	0.138	2228726
2026/25SP	2x25	7 - 12	l. grey	5000	200	0.138	2228432
2026/35	2x35	7 - 12	l. grey	4000	100	0.166	2228734
2026/35SP	2x35	7 - 12	l. grey	4000	200	0.166	2228440
2026/45	2x45	7 - 12	l. grey	3000	100	0.185	2228750
2027/25	2x25	10 - 14	l. grey	2700	100	0.175	2228823
2027/30	2x30	10 - 14	l. grey	2700	100	0.188	2228831
2027/40	2x40	10 - 14	l. grey	2700	100	0.213	2228858
2028/40	2x40	13.5-17	l. grey	500	100	0.295	2228904

**PP** Polypropylene, light grey (RAL 7035)

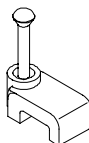


Type	For cable Ø mm	Nail Ø x l mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
1980/15	3- 5	1.5x15	l. grey	22500	250	0.035	2223007
1980/20	3- 5	1.5x20	l. grey	22500	250	0.040	2223015
1981/20	5- 7.5	1.5x20	l. grey	15000	200	0.048	2223074
1981/25	5- 7.5	1.5x25	l. grey	15000	200	0.055	2223082
1982/25	7-10	2.0x25	l. grey	7500	100	0.096	2223139
1982/35	7-10	2.0x35	l. grey	5000	100	0.120	2223147
1983/25	8.5-12.5	2.0x25	l. grey	4000	100	0.115	2223201
1983/35	8.5-12.5	2.0x35	l. grey	4000	100	0.140	2223228
1984/30	11.5-15.5	2.0x30	l. grey	3000	100	0.160	2223279
1984/40	11.5-15.5	2.0x40	l. grey	2700	100	0.180	2223287
1985/40	15 - 20	2.5x40	l. grey	2700	100	0.320	2223333
1986/50	20 - 26	2.5x50	l. grey	1200	100	0.500	2223392

Short pattern

**PP** Polypropylene, light grey (RAL 7035)

## Insulating cable clips



Type	Nail Ø x mm	Co-lour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2000 F 5/20	1.5x20	white	18000	200	0.058	2230038

For flat cable 2 x 5 mm. Shrink-wrap pack: 1000 pcs

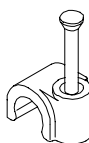
Type	Nail Ø x mm	Co-lour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2000 F 6/20	1.5x20	white	9000	100	0.076	2230100
2000 F 6/25	1.5x25	white	9000	100	0.085	2230119

For flat cable 2 x 6 mm. Shrink-wrap pack: 500 pcs

Type	Nail Ø x mm	Co-lour	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2000 F 8/25	1.5x25	white	9000	100	0.084	2230216

For flat cable 2 x 8 mm. Shrink-wrap pack: 500 pcs

**PP** Polypropylene, white



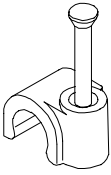
Type	Nail Ø x mm	For cable Ø mm	Shrink-wrap pack qty	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2003/15	1.5x15	3	1250	22500	250	0.044	2227010
2004/18	2.0x18	4	1000	18000	200	0.081	2227223
2004/25	2.0x25	4	1000	15000	200	0.093	2227231
2005/18	2.0x18	5	500	9000	100	0.071	2227347
2005/25	2.0x25	5	500	9000	100	0.187	2227339
2006/25	2.0x25	6	500	7500	100	0.126	2227428
2006/35	2.0x35	6	500	5000	100	0.158	2227436
2007/25	2.0x25	7	500	7500	100	0.134	2227517
2007/35	2.0x35	7	500	5000	100	0.176	2227525
2008/25	2.0x25	8	500	5000	100	0.152	2227614
2008/35	2.0x35	8	500	5000	100	0.181	2227622
2008/45	2.0x45	8	500	4000	100	0.210	2227630
2009/25	2.0x25	9	500	5000	100	0.153	2227711
2009/35	2.0x35	9	500	4000	100	0.184	2227738
2009/35SP	2.0x35	9	500	4000	200	0.184	2227762
2009/45	2.0x45	9	500	3000	100	0.225	2227746
2009/45SP	2.0x45	9	500	3000	200	0.225	2227797
2010/25	2.0x25	10	500	5000	100	0.172	2227800
2010/35	2.0x35	10	500	4000	100	0.207	2227819
2010/45	2.0x45	10	500	3000	100	0.238	2227827
2011/35	2.0x35	11	500	3000	100	0.247	2227916
2011/45	2.0x45	11	500	3000	100	0.265	2227924
2012/35	2.0x35	12	500	3000	100	0.245	2228025
2012/45	2.0x45	12	500	3000	100	0.275	2228033
2014/40	2.5x40	14	250	1500	50	0.466	2228114
2014/50	2.5x50	14	250	1500	50	0.536	2228122
2016/40	2.5x40	16	250	1500	50	0.402	2228211
2016/50	2.5x50	16	250	1500	50	0.526	2228238
2018/40	2.5x40	18	125	750	25	0.548	2228300
2018/50	2.5x50	18	125	750	25	0.700	2228319
2020/40	2.5x40	20	125	750	25	0.740	2228408
2020/50	2.5x50	20	125	750	25	0.780	2228416

Light grey

**PP** Polypropylene, light grey (RAL 7035)



## Insulating cable clips



Type	Nail Ø x mm	For cable Ø mm	Shrink- wrap pack qty	Car- ton qty	Pack qty	Weight kg/100	Ord. no. <b>PP</b>
2003/15	1.5x15	3	1250	22500	250	0.042	2225018
2003/20	1.5x20	3	1250	22500	250	0.048	2225026
2003a/15	1.5x15	3.5	1250	22500	250	0.059	2225107
2003a/20	1.5x20	3.5	1000	18000	200	0.075	2225115
2004/18	2.0x18	4	1000	18000	200	0.081	2225220
2004/25	2.0x25	4	1000	15000	200	0.046	2225239
2005/18	2.0x18	5	500	9000	100	0.094	2225379
2005/25	2.0x25	5	500	9000	100	0.187	2225344
2006/18	2.0x18	6	500	7500	100	0.122	2225409
2006/25	2.0x25	6	500	7500	100	0.126	2225417
2006/35	2.0x35	6	500	5000	100	0.160	2225425
2007/18	2.0x18	7	500	7500	100	0.129	2225506
2007/25	2.0x25	7	500	7500	100	0.134	2225514
2007/35	2.0x35	7	500	7500	100	0.172	2225522
2008/20	2.0x20	8	500	5000	100	0.136	2225603
2008/25	2.0x25	8	500	5000	100	0.159	2225611
2008/35	2.0x35	8	500	5000	100	0.185	2225638
2009/20	2.0x20	9	500	5000	100	0.148	2225700
2009/25	2.0x25	9	500	5000	100	0.162	2225719
2009/35	2.0x35	9	500	4000	100	0.179	2225727
2010/25	2.0x25	10	500	5000	100	0.172	2225808
2010/35	2.0x35	10	500	3000	100	0.211	2225816
2011/25	2.0x25	11	500	3000	100	0.219	2225905
2011/35	2.0x35	11	500	3000	100	0.247	2225913
2012/25	2.0x25	12	500	3000	100	0.224	2226014
2012/35	2.0x35	12	500	3000	100	0.248	2226022
2014/30	2.5x30	14	250	1500	50	0.432	2226103
2014/40	2.5x40	14	250	1500	50	0.466	2226111
2016/40	2.5x40	16	250	1500	50	0.490	2226219
2016/50	2.5x50	16	250	1500	50	0.526	2226227
2018/40	2.5x40	18	125	750	25	0.548	2226308
2018/50	2.5x50	18	125	750	25	0.700	2226316
2020/40	2.5x40	20	125	750	25	0.740	2226405
2020/50	2.5x50	20	125	750	25	0.780	2226413

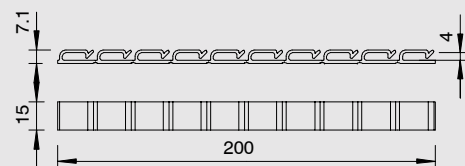
**PP** Polypropylene, white

## Cable clips



Type	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
507	l. grey	800	100	1.200	2327104

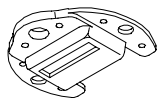
Self-adhesive



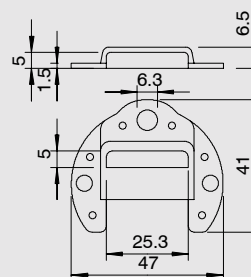
507

**PS** Polystyrene, light grey (RAL 7035)

## Ceiling hanger plate

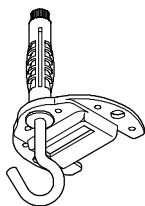


Type	Colour	Pack qty	Weight kg/100	Ord. no. PS
510	natural	100	0.289	2236028

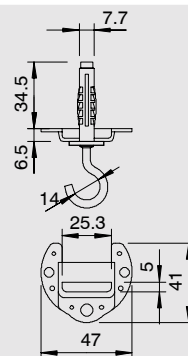


**510**  
PS Polystyrene, natural

## Ceiling hanger plate



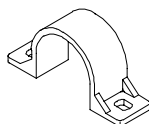
Type	Colour	Pack qty	Weight kg/100	Ord. no. PS
469	natural	50	1.295	2236400



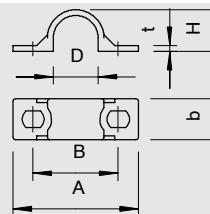
**469**  
PS Polystyrene, natural

With OBO expanding plug type 468/1

## Two-tab saddles



Type	Clamping range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
3060	6.5- 8	l. grey	2000	100	0.069	2200082
3060	8 -10	l. grey	2000	100	0.073	2200104
3060	10 -12	l. grey	1000	100	0.104	2200120
3060	12 -14	l. grey	1000	100	0.142	2200147
3060	14.5-16	l. grey	1000	100	0.169	2200163
3060	17.5-19	l. grey	1000	100	0.229	2200198
3060	19 -20.5	l. grey	1000	100	0.245	2200201
3060	21 -23	l. grey	1000	100	0.300	2200236
3060	23 -25	l. grey	1000	100	0.358	2200252
3060	25 -28.5	l. grey	1000	100	0.429	2200287
3060	29 -34	l. grey	1000	100	0.429	2200341
3060	34.5-37	l. grey	500	50	0.686	2200376
3060	42.5-47	l. grey	500	50	0.900	2200473



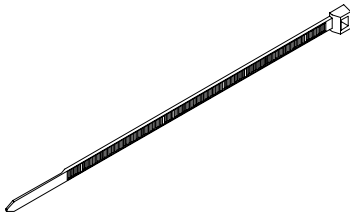
Clamping range mm	Steel conduit DIN 49020 Heavy plastic conduit DIN 49016	Light plastic conduit IEC 423	Metric conduits IEC 423	Conduits to NL standards
	Nom. size	Nom. size	Outside Ø	Outside Ø
6.5- 8	-	-	-	-
8 -10	-	9	-	-
10 -12	-	-	12	-
12 -14	-	11	-	-
14.5-16	Pg 9	13.5	16	16
17.5-19	Pg 11	16	-	19
19 -20.5	Pg 13.5	-	20	-
21 -23	Pg 16	-	-	-
23 -25	-	23	25	25
25 -28.5	Pg 21	-	-	-
29 -34	-	29	32	32
34.5-37	Pg 29	-	-	-
42.5-47	Pg 36	42	-	-

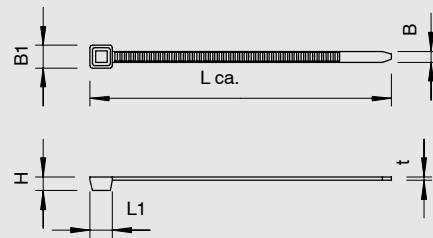
Clamping range mm	D mm	A mm	B mm	H mm	t mm	b mm
	6.5- 8	8	30	19	6.3	1.6
8 -10	10	32	21	7.7	1.6	10
10 -12	12	34	23	9.7	1.6	11
12 -14	14	36	25	11.7	1.8	12
14.5-16	16	38	27	14.2	1.8	12
17.5-19	19	43	32.5	17.2	2.0	13
19 -20.5	20.5	46	35	18.7	2.0	13
21 -23	23	48	37	20.7	2.2	14
23 -25	25	53	41	22.7	2.2	15
25 -28.5	28.5	60	46	24.7	2.5	15
29 -34	34	66	52	28.7	3	16
34.5-37	37	71	56	34.2	3	16
42.5-47	47	84	69	42.2	3	16

**3060:** To fix cables, steel and plastic conduits  
PS Polystyrene, light grey

## Cable ties



Type	Dim. mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
555	2.4 x 75	natural	1000	100	0.050	2332027
555	2.5 x 100	natural	1000	100	0.065	2332051
555	2.5 x 165	natural	1000	100	0.080	2332094
555	2.5 x 200	natural	1000	100	0.100	2332108
555	3.6 x 150	natural	1000	100	0.125	2332175
555	3.6 x 200	natural	1000	100	0.150	2332183
555	3.6 x 290	natural	1000	100	0.175	2332213
555	4.8 x 200	natural	1000	100	0.200	2332337
555	4.8 x 310	natural	1000	100	0.250	2332361
555	4.8 x 370	natural	1000	100	0.300	2332388
555	7.6 x 200	natural	1000	100	0.350	2332507
555	7.6 x 300	natural	1000	100	0.450	2332558
555	7.6 x 380	natural	1000	100	0.500	2332574

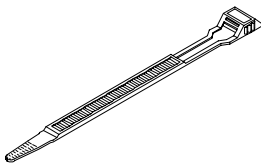


555

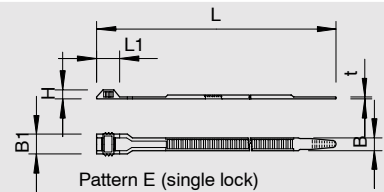
Dim. mm	L ca. mm	B mm	B1 mm	t mm	H mm	L1 mm	Max. bundle Ø mm	Min. breaking load N
2.4 x 75	78	2.4	4.4	1.0	2.9	4.4	15	80
2.5 x 100	102	2.5	4.5	1.1	3.3	4.4	18	80
2.5 x 165	166	2.5	4.5	1.1	3.7	4.4	40	80
2.5 x 200	202	2.5	4.5	1.1	3.7	4.4	50	80
3.6 x 150	152	3.6	6.0	1.2	3.8	6.5	35	180
3.6 x 200	201	3.6	6.2	1.2	4.4	5.8	50	180
3.6 x 290	294	3.6	6.0	1.2	4.5	6.0	76	180
4.8 x 200	200	4.8	7.5	1.3	4.6	7.2	47	220
4.8 x 310	310	4.8	8.5	1.6	5.7	7.7	76	220
4.8 x 370	366	4.8	8.5	1.6	5.7	7.7	102	220
7.6 x 200	200	7.6	11.6	1.8	7.2	11	50	550
7.6 x 300	300	7.6	11.8	1.8	6.9	11	76	550
7.6 x 380	376	7.6	12	1.8	6.4	11	102	550

PA Polyamide, natural

## Fastening straps



Type	Dim. mm	Max. bundle Ø mm	Min. breaking load N	Pack qty	Weight kg/100	Ord. no. PA
550	6 x 115	25	250	100	0.110	2330032
550	6 x 180	45	250	100	0.180	2330059
550	6 x 290	78	250	100	0.300	2330075
550	6 x 360	100	250	100	0.380	2330091
550	8 x 175	42	350	100	0.230	2330121
550	9 x 132	27	350	100	0.200	2330202
550	9 x 180	45	350	100	0.270	2330229

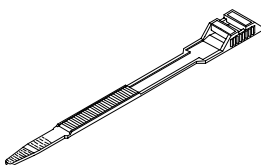


Pattern E (single lock)

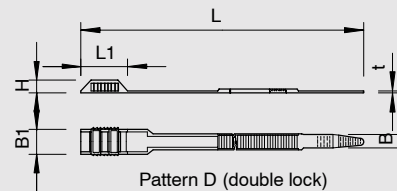
Dim. mm	L ca mm	B mm	B1 mm	t mm	H mm	L1 mm	Max. bundle Ø mm	Min. breaking load N
6 x 115	115	6	10	1.2	5	20	25	250
6 x 180	180	6	10	1.2	5	20	45	250
6 x 290	290	6	10	1.7	5	20	78	250
6 x 360	360	6	10	1.7	5	20	100	250
8 x 175	175	8	14	1.4	6	24	42	350
9 x 132	132	9	14	1.4	6	24	27	350
9 x 180	180	9	14	1.4	6	24	45	350

550: UV- and weather-resistant

PA Polyamide, black, halogen-free



Type	Dim. mm	Max. bundle Ø mm	Min. breaking load N	Pack qty	Weight kg/100	Ord. no. PA
550	8 x 255	57	450	100	0.350	2330156
550	8 x 350	88	450	100	0.500	2330172
550	9 x 265	65	510	100	0.420	2330245
550	9 x 300	80	510	100	0.500	2330261
550	9 x 360	93	510	100	0.560	2330296
550	9 x 510	140	550	100	0.930	2330326
550	9 x 760	220	550	100	1.350	2330342



Pattern D (double lock)

Dim. mm	L ca mm	B mm	B1 mm	t mm	H mm	L1 mm	Max. bundle Ø mm	Min. breaking load N
8 x 255	255	8	14	1.4	6	40	57	450
8 x 350	350	8	14	1.4	6	40	88	450
9 x 265	265	9	15	1.4	7	39	65	510
9 x 300	300	9	15	1.4	7	39	80	510
9 x 360	360	9	15	1.4	7	39	93	510
9 x 510	510	9	15	2.0	7.2	39	140	550
9 x 760	760	9	15	2.0	7.2	40	220	550

550: UV- and weather-resistant

PA Polyamide, black, halogen-free

## OBO fastening straps

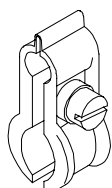


Type	Colour	Usable strap length mm	Pack qty	Weight kg/100	Ord. no. PP
540/3	l. grey	300	25	1.500	2329301

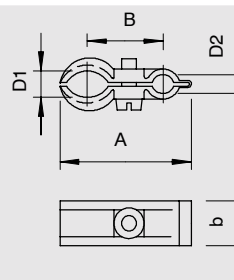
For single-conductor cable

**PP** Polypropylene, light grey (RAL 7035)

## Span wire clamps



Type	Clamping range mm	For Ø mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. PS
4024	6-13	3- 6	l. grey	1000	100	0.418	2305135
4024	9-16	3- 8	l. grey	1200	100	0.545	2305151
4024	16-23	5-10	l. grey	500	50	0.930	2305232



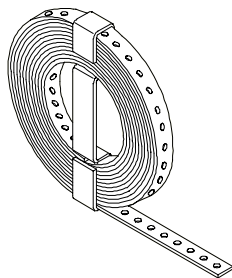
4024

Clamping range D1	For Ø D2	A ca. mm	B mm	b mm	Screw
6-13	3- 6	34	20	12	M 4x13
9-16	3- 8	41	24	14	M 4x13
16-23	5-10	55	31.5	15	M 5x20

Screw, steel, electro-galvanised

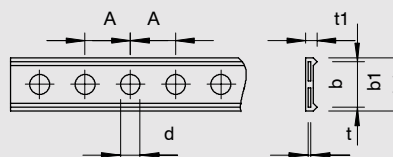
**PS** Polystyrene, light grey (RAL 7035)

## Perforated steel strap



Type	Size/material mm	Per roll m	Carton rolls	Weight kg/roll	Ord. no. FS/PE
5055/L PE	I/12x0.75	10	20	0.700	1473220
5055/L PE	II/17x0.75	10	20	1.005	1473271
5055/L PE	III/26x1	10	10	1.675	1473360

Plastic coated



5055/L PE

Size	d mm	A mm	b mm	b1 mm	t mm	t1 ca. mm
I	5.2	12	12	14	0.75	3
II	6.5	15	17	19	0.75	3
III	8.5	20	26	28	1.0	3.7

With polyethylene coating

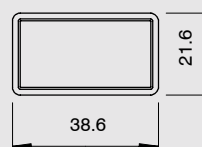
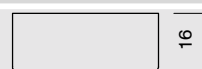
**FS** Steel, strip galvanised to DIN EN 10147

**PE** Polyethylene

## Protection caps



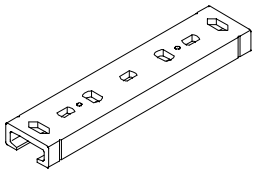
Type	Pack qty	Weight kg/100	Ord. no. PE
1268 SK	100	0.420	1124501



1268 SK

**PE** Polyethylene, bleu (approx RAL 5012)

## Profile rails

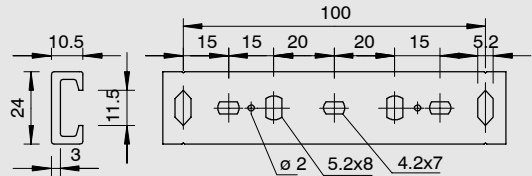


Type	Length m	Bundle m	Colour	Weight kg/100 m	Ord. no. <b>PS</b>
<b>2060 PLA</b>	2	60	grey	10.000	<b>2355027</b>

Perforated, can be snapped off every 10 cm

**Accessories available:**

OBO hammer-fitted cable spacers 2047 and 2048 see page 68

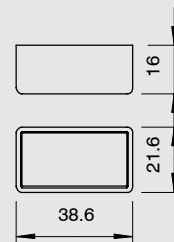


**2060 PLA:** Plastic rail, suitable for fixing with screws or nails  
**PS** Polystyrene, grey (RAL 7030)

## Protection caps



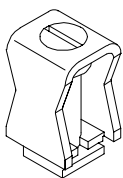
Type	Pack qty	Weight kg/100	Ord. no. <b>PE</b>
<b>1268 SK</b>	100	0.420	<b>1124501</b>



**1268 SK:** Plastic, blue (approx RAL 5012)

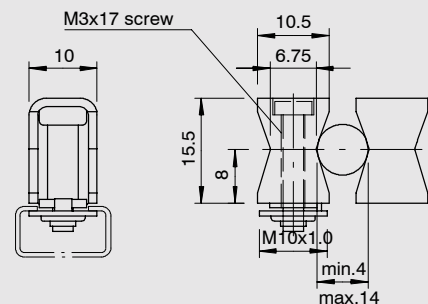
**PE** Polyethylene

## Cable spacers



Type	Clamp- ing range mm	Screw and nut material	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>2049</b>	4-14	G	l. grey	2000	100	0.243	<b>2254018</b>
<b>2049</b>	4-14	Ms	l. grey	2000	100	0.243	<b>2254212</b>

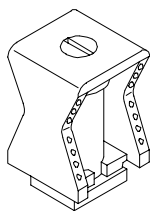
Prices to DEL quotation; see Notes on Materials



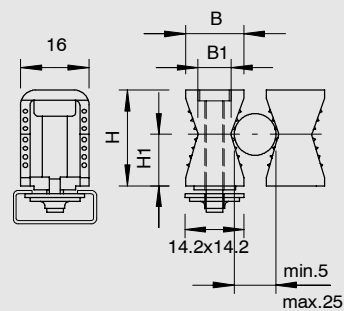
**2049:** Also suitable for C-rails with 7.5 mm slot width.  
Body of polystyrene, impact-resistant, halogen-free.  
Metal parts of steel, electro-galvanised, or brass.

**PS** Polystyrene, light grey (RAL 7035)

## Cable spacers



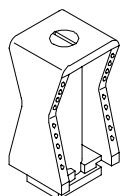
Type	Clamp- ing range mm	Screw and nut material	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
2050	5-25	G	l. grey	1000	100	0.658	2254026
2050	5-25	Ms	l. grey	1000	100	0.662	2254220



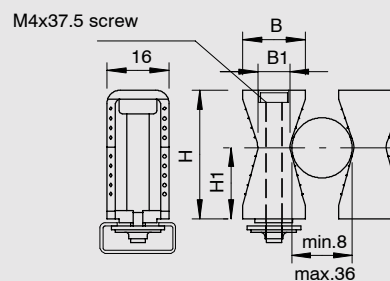
Type	B mm	B1 mm	H mm	H1 mm	Screw
2050	14	8.5	23	12.5	M4x27
2050/B	17	8	26	12	M4x30

**2050:** Also suitable for rails with 10-11 mm slot width.  
Body of polystyrene, impact-resistant, halogen-free, light grey (RAL 7035).  
Metal parts of steel, electro-galvanised, or brass.

**PS** Polystyrene, light grey (RAL 7035)



Type	Clamp- ing range mm	Screw and nut material	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
2051	8-36	G	l. grey	800	100	0.971	2254034
2051	8-36	Ms	l. grey	800	100	0.941	2254239



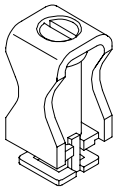
Type	B mm	B1 mm	H mm	H1 mm
2051	16.5	8.5	34	19
2051/B	19	8	34.6	18

**2051:** Also suitable for rails with 10-11 mm slot width.  
Body of polystyrene, impact-resistant, halogen-free, light grey (RAL 7035).  
Metal parts of steel, electro-galvanised, or brass.

**PS** Polystyrene, light grey (RAL 7035)

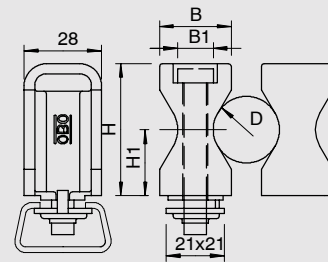
**Suitable for:**  
Profile rails 2060 PLA see page 66  
Prices to DEL quotation; see Notes on Materials

## Cable spacers



Type	Clamp- ing range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>UF</b>
<b>2054</b>	14-48	l. grey	300	25	5.124	<b>2255014</b>
<b>2055</b>	24-72	l. grey	240	20	7.970	<b>2255022</b>

Type	Clamp- ing range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PA</b>
<b>2054/PA</b>	14-48	l. grey	250	25	4.300	<b>2255405</b>
<b>2055/PA</b>	24-72	l. grey	200	20	6.400	<b>2255413</b>



Type	Clamping range D	B mm	B1 mm	H mm	H1 mm	Screw
2054	14-48	26	13	48	24	M8 x 55
2054/PA	14-48	26	13	48	24	M8 x 55
2055	24-72	38	15	70	35	
2055/PA	24-72	38	15	70	35	

### 2054 and 2055: Heavy duty

Also suitable for rails with 16-17 mm slot width.  
Body of aminoplast 131.5, light grey (RAL 7035).  
Metal parts of steel, electro-galvanised.  
Screws and nuts in brass on request.

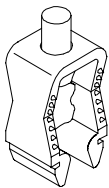
### 2054/PA and 2055/PA: Heavy duty

Also suitable for rails with 16-17 mm slot width.  
Body of polyamide, light grey (RAL 7035).  
Metal parts of steel, electro-galvanised.  
Screws and nuts in brass on request.

**UF** Duroplast/aminoplast 131.5 (UF), light grey (RAL 7035), difficult to ignite

**PA** Polyamide

## OBO hammer-fitted cable spacers®



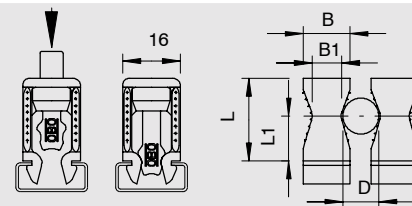
Type	Clamp- ing range mm	Colour	Carton qty	Pack qty	Weight kg/100	Ord. no. <b>PS</b>
<b>2047</b>	5-25	l. grey	1000	100	0.389	<b>2251256</b>
<b>2048</b>	8-38	l. grey	1000	100	0.603	<b>2251388</b>

### Suitable for:

Profile rails

2060 PLA

see page 66



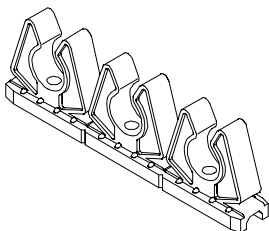
Type	Clamping range D	A mm	B mm	B1 mm	L mm	L1 mm
2047	5-25	16	13	8	23	12.5
2048	8-38	18	16.5	8.5	34	19

### 2047 and 2048: Corrosion-proof spacer.

Application: Position spacer in profile rail and fix with a hammer blow

**PS** Polystyrene, light grey (RAL 7035)

## OBO cable spacer clips



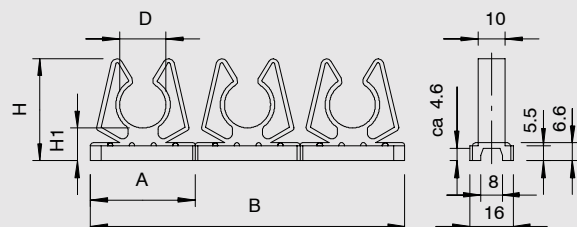
Type	Clamp- ing range mm	Colour	Strips of	Pack strips	Weight kg/100	Ord. no. <b>PE</b>
<b>2036/7</b>	4- 7	l. grey	4 clips	25	0.160	<b>2259079</b>
<b>2036/11</b>	7-11	l. grey	5 clips	25	0.250	<b>2259117</b>
<b>2036/15</b>	10-15	l. grey	4 clips	25	0.350	<b>2259141</b>
<b>2036/19</b>	14-19	l. grey	3 clips	25	0.500	<b>2259192</b>
<b>2036/23</b>	18-23	l. grey	3 clips	25	0.700	<b>2259230</b>
<b>2036/28</b>	22-28	l. grey	1 clip	25	1.050	<b>2259281</b>

### Suitable for:

Profile rails

2060 PLA

see page 66



Type	Clamping range D	Number of clips per strip	A mm	B mm	H mm	H1 mm
2036/7	4- 7	4	12.75	51	18.5	11
2036/11	7-11	5	20	100	22.5	9.5
2036/15	10-15	4	25	100	26.5	9.5
2036/19	14-19	3	31	93	31.5	10.5
2036/23	18-23	3	38.5	115.5	37	12
2036/28	22-28	1	51	51	44.5	13.5

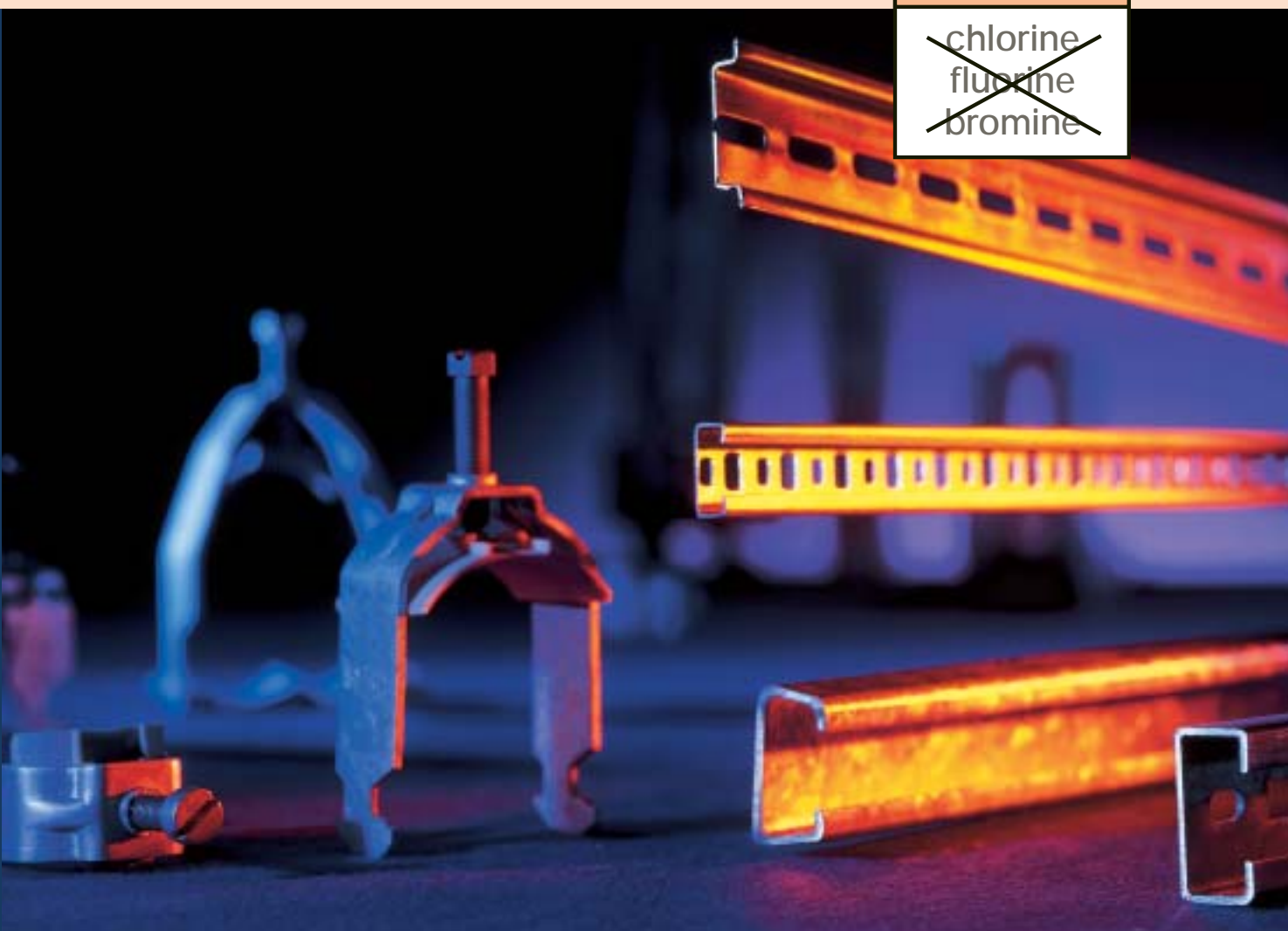
2036/...: Single clips can be split off. For sliding into profile rails.

**PE** Polyethylene, light grey (RAL 7035)

# Halogen-free components

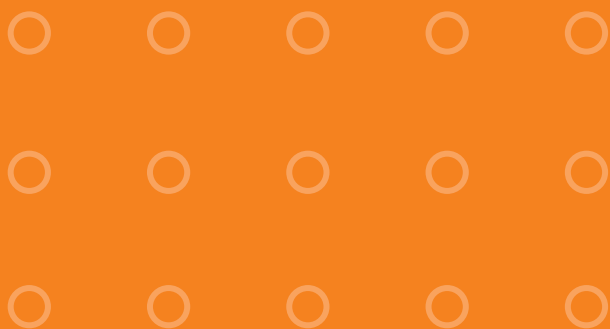
## VBS. Rail systems

U-clamps (BBS clamps)



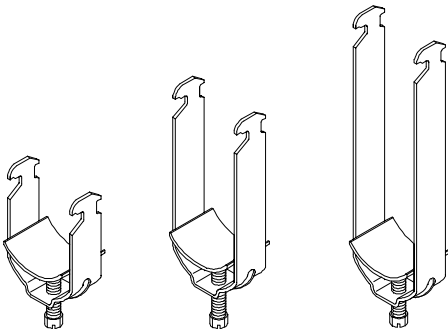
halogen-free

~~chlorine  
fluorine  
bromine~~





## U-clamps (BBS clamps)



halogen-free  
chlorine  
fluorine  
bromine

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056	8- 12	100	3.540	1160125
2056	12- 16	100	3.820	1160168
2056	16- 22	100	4.508	1160222
2056	22- 28	100	6.240	1160281
2056	28- 34	100	7.680	1160346
2056	34- 40	100	8.260	1160400
2056	40- 46	100	10.900	1160451
2056	46- 52	100	11.900	1160524
2056	52- 58	100	14.300	1160583
2056	58- 64	100	15.600	1160648
2056	64- 70	50	18.200	1160702
2056	70- 76	25	20.600	1160761
2056	76- 82	25	22.000	1160826
2056	82- 90	25	26.200	1160907
2056	90-100	25	27.800	1160990

For one cable

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/2	8- 12	50	4.100	1161121
2056/2	12- 16	50	4.650	1161164
2056/2	16- 22	50	5.150	1161229
2056/2	22- 28	50	7.700	1161288
2056/2	28- 34	50	10.200	1161342
2056/2	34- 40	50	11.450	1161407
2056/2	40- 46	50	14.950	1161466
2056/2	46- 52	50	16.700	1161520
2056/2	52- 58	50	21.400	1161571
2056/2	58- 64	50	24.250	1161644

For two cables

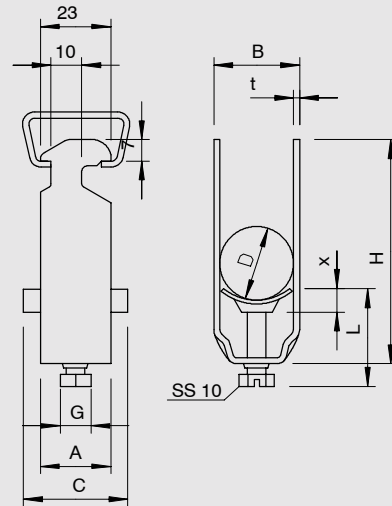
Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/3	8- 12	50	4.900	1162128
2056/3	12- 16	50	6.200	1162160
2056/3	16- 22	50	7.100	1162225
2056/3	22- 28	50	10.650	1162284
2056/3	28- 34	50	13.100	1162349
2056/3	34- 40	50	14.350	1162403
2056/3	40- 46	50	19.800	1162462

For three cables

**Accessories available:**  
Opposite pressure sleeves  
Double pressure sleeves

2058  
2058/FW  
2058/2

see page 86  
see page 86  
see page 87



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable		For 2 cables		For 3 cables	
							H mm	L mm	H mm	L mm	H mm	L mm
8- 12	23	16	34	M6	1.5	5	40	34	52	34	70	47
12- 16	23	20	34	M6	1.5	5	44	34	61	34	82	47
16- 22	23	27	34	M6	1.5	5	50	34	73	47	101	47
22- 28	23	33	34	M6	2	5	58	34	87	47	121	47
28- 34	23	39	34	M8	2	5.5	66	37.5	101	44.5	142	56.5
34- 40	23	45	34	M8	2	5.5	72	37.5	114	44.5	162	56.5
40- 46	23	51	40	M8	2	5.5	79	44.5	129	44.5	184	56.5
46- 52	23	57	40	M8	2	6.5	86	45.5	142	45.5		
52- 58	23	64	40	M8	2.5	6.5	93	45.5	154	45.5		
58- 64	23	70	40	M8	2.5	6.5	99	45.5	167	45.5		
64- 70	25	76	40	M8	2.5	6.5	106	45.5				
70- 76	25	82	40	M8	2.5	6.5	114	45.5				
76- 82	25	88	40	M8	2.5	6.5	121	45.5				
82- 90	25	97	40	M8	3	6.5	130	57.5				
90-100	25	107	40	M8	3	6.5	140	57.5				

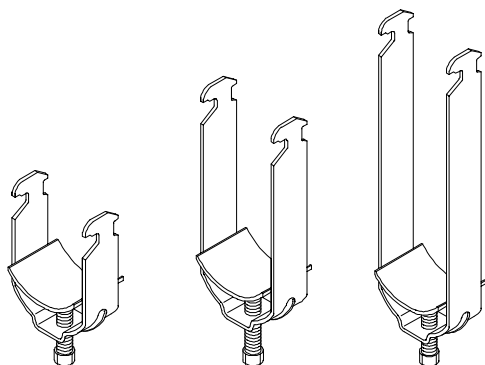
**2056, 2056/2 and 2056/3:** Also suitable for all C-profile rails with 16-17 mm slot width.

Clamp and screw of hot-dip galvanised steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)

Version with weld-on nut and/or locknut for use under severe conditions and for shakeproofing on request.

**FT** Steel, hot-dip galvanised to DIN EN ISO 1461

## U-clamps (BBS clamps)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056 VA	8- 12	100	3.300	1159518
2056 VA	12- 16	100	3.600	1159526
2056 VA	16- 22	100	4.200	1159534
2056 VA	22- 28	100	6.500	1159542
2056 VA	28- 34	100	7.400	1159550
2056 VA	34- 40	100	8.000	1159569
2056 VA	40- 46	100	10.900	1159577
2056 VA	46- 52	100	11.400	1159585
2056 VA	52- 58	100	14.500	1159593
2056 VA	58- 64	100	15.600	1159607
2056 VA	64- 70	50	18.200	1159615
2056 VA	70- 76	25	20.800	1159623
2056 VA	76- 82	25	22.100	1159631
2056 VA	82- 90	25	26.200	1159658

For one cable

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056/2 VA	8- 12	50	4.100	1161806
2056/2 VA	12- 16	50	4.650	1161814
2056/2 VA	16- 22	50	5.150	1161822
2056/2 VA	22- 28	50	7.700	1161830
2056/2 VA	28- 34	50	10.200	1161849
2056/2 VA	34- 40	50	11.450	1161857
2056/2 VA	40- 46	50	14.950	1161865
2056/2 VA	46- 52	50	16.700	1161873
2056/2 VA	52- 58	50	21.400	1161881
2056/2 VA	58- 64	50	24.250	1161903

For two cables

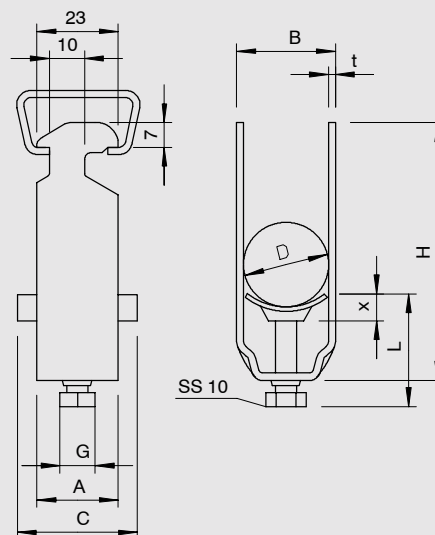
Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056/3 VA	8- 12	50	4.900	1162039
2056/3 VA	12- 16	50	5.550	1162047
2056/3 VA	16- 22	50	7.100	1162055
2056/3 VA	22- 28	50	10.650	1162063
2056/3 VA	28- 34	50	13.100	1162071
2056/3 VA	34- 40	50	14.350	1162098
2056/3 VA	40- 46	50	19.800	1162101

For three cables

**Accessories available:**  
 Opposite pressure sleeves  
 Double pressure sleeves

2058  
 2058/FW  
 2058/2

see page 86  
 see page 86  
 see page 87



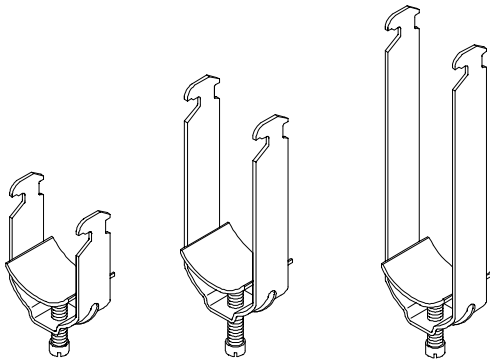
Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable		For 2 cables		For 3 cables	
							H mm	L mm	H mm	L mm	H mm	L mm
8- 12	23	16	34	M6	1.5	5	40	34	52	34	70	47
12- 16	23	20	34	M6	1.5	5	44	34	61	34	82	47
16- 22	23	27	34	M6	1.5	5	50	34	73	47	101	47
22- 28	23	33	34	M6	2	5	58	34	87	47	121	47
28- 34	23	39	34	M8	2	5.5	66	37.5	101	44.5	142	56.5
34- 40	23	45	34	M8	2	5.5	72	37.5	114	44.5	162	56.5
40- 46	23	51	40	M8	2	5.5	79	44.5	129	44.5	184	56.5
46- 52	23	57	40	M8	2	6.5	86	45.5	142	45.5		
52- 58	23	64	40	M8	2.5	6.5	93	45.5	154	45.5		
58- 64	23	70	40	M8	2.5	6.5	99	45.5	167	45.5		
64- 70	25	76	40	M8	2.5	6.5	106	45.5				
70- 76	25	82	40	M8	2.5	6.5	114	45.5				
76- 82	25	88	40	M8	2.5	6.5	121	45.5				
82- 90	25	97	40	M8	3	6.5	130	57.5				
90-100	25	107	40	M8	3	6.5	140	57.5				

**2056 VA, 2 VA and 3 VA:** Also suitable for all C-profile rails with 16-17 mm slot width.

Clamp and screw of stainless steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
 (Metal pressure sleeves on request)

**VA** Stainless steel, material 1.4301

## U-clamps (BBS clamps)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. <b>Alu</b>
2056 ALU	8- 12	100	0.750	1183206
2056 ALU	12- 16	100	0.900	1183214
2056 ALU	16- 22	100	1.050	1183222
2056 ALU	22- 28	100	1.300	1183230
2056 ALU	28- 34	100	2.300	1183249
2056 ALU	34- 40	100	2.700	1183257
2056 ALU	40- 46	100	3.600	1183265
2056 ALU	46- 52	100	3.900	1183273
2056 ALU	52- 58	100	4.200	1183281
2056 ALU	58- 64	100	4.500	1183303
2056 ALU	64- 70	50	5.400	1183311
2056 ALU	70- 76	25	5.850	1183338
2056 ALU	76- 82	25	6.050	1183346
2056 ALU	82- 90	25	7.500	1183354

For one cable

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. <b>Alu</b>
2056/2 ALU	8- 12	50	1.000	1183389
2056/2 ALU	12- 16	50	1.250	1183397
2056/2 ALU	16- 22	50	1.500	1183400
2056/2 ALU	22- 28	50	2.000	1183419
2056/2 ALU	28- 34	50	3.200	1183427
2056/2 ALU	34- 40	50	3.750	1183435
2056/2 ALU	40- 46	50	4.850	1183443
2056/2 ALU	46- 52	50	5.300	1183451
2056/2 ALU	52- 58	50	6.000	1183478

For two cables

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. <b>Alu</b>
2056/3 ALU	8- 12	50	1.350	1183508
2056/3 ALU	12- 16	50	1.650	1183516
2056/3 ALU	16- 22	50	2.050	1183524
2056/3 ALU	22- 28	50	2.900	1183532
2056/3 ALU	28- 34	50	4.200	1183540
2056/3 ALU	34- 40	50	4.950	1183559
2056/3 ALU	40- 46	50	6.200	1183567

For three cables

**Accessories available:**

Opposite pressure sleeves

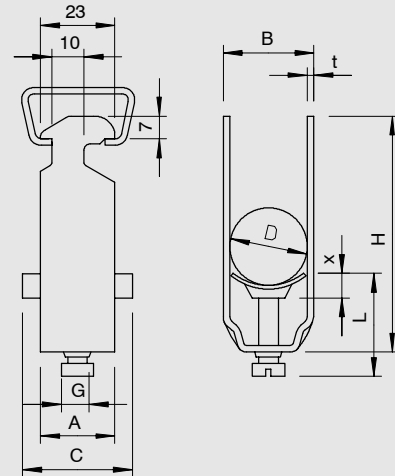
2058  
2058/FW  
2058/2

see page 86

see page 86

Double pressure sleeves

see page 87



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable		For 2 cables		For 3 cables	
							H mm	L mm	H mm	L mm	H mm	L mm
8- 12	23	16	34	M6	1.5	5	40	34	52	34	70	47
12- 16	23	20	34	M6	1.5	5	44	34	61	34	82	47
16- 22	23	27	34	M6	1.5	5	50	34	73	47	101	47
22- 28	23	33	34	M6	2	5	58	34	87	47	121	47
28- 34	23	39	34	M8	2	5.5	66	37.5	101	44.5	142	56.5
34- 40	23	45	34	M8	2	5.5	72	37.5	114	44.5	162	56.5
40- 46	23	51	40	M8	2	5.5	79	44.5	129	44.5	184	56.5
46- 52	23	57	40	M8	2	6.5	86	45.5	142	45.5		
52- 58	23	64	40	M8	2.5	6.5	93	45.5	154	45.5		
58- 64	23	70	40	M8	2.5	6.5	99	45.5	167	45.5		
64- 70	25	76	40	M8	2.5	6.5	106	45.5				
70- 76	25	82	40	M8	2.5	6.5	114	45.5				
76- 82	25	88	40	M8	2.5	6.5	121	45.5				
82- 90	25	97	40	M8	3	6.5	130	57.5				
90-100	25	107	40	M8	3	6.5	140	57.5				

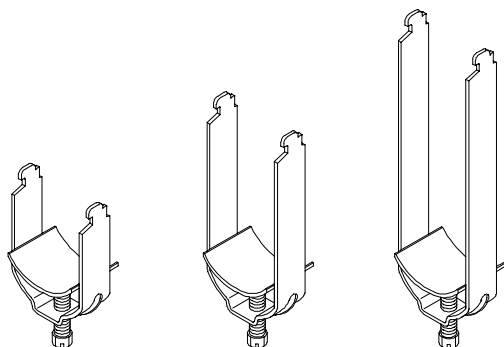
**2056/ALU, 2 ALU and 3 ALU:** Also suitable for all C-profile rails with 16-17 mm slot width.

Clamp and screw of aluminium AIMg 3, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035) (Metal pressure sleeves on request)

The version of U-clamps **2056/ALU** for 1 cable to VDE 0298-1 is suitable for single installation of single-conductor cables in three-phase systems, since there is no closed iron circuit in this case. However, the lower mechanical strength of aluminium clamps in the event of short circuit must be taken into account, i.e.: clamps as close together as possible along the length of the cable, and sufficient lateral spacing between the cables.

**Alu** Aluminium

## U-clamps (BBS clamps)



halogen-free  
~~chlorine~~  
~~fluorine~~  
~~bromine~~

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/N	8- 12	100	2.500	1163124
2056/N	12- 16	100	2.750	1163167
2056/N	16- 22	100	3.100	1163221
2056/N	22- 28	100	4.600	1163280
2056/N	28- 34	100	5.900	1163345
2056/N	34- 40	100	6.300	1163396
2056/N	40- 46	100	7.650	1163469
2056/N	46- 52	100	8.750	1163523
2056/N	52- 58	100	11.000	1163582
2056/N	58- 64	100	12.100	1163647
2056/N	64- 70	50	13.550	1163701
2056/N	70- 76	25	14.550	1163760
2056/N	76- 82	25	15.400	1163825
2056/N	82- 90	25	19.100	1163906
2056/N	90- 100	25	21.250	1163981

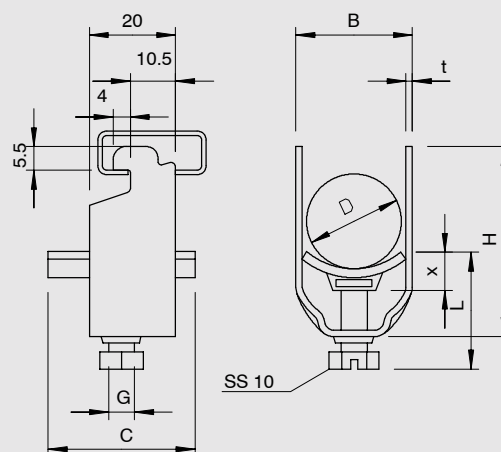
For one cable

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/N2	8- 12	50	3.500	1164120
2056/N2	12- 16	50	3.850	1164163
2056/N2	16- 22	50	4.650	1164228
2056/N2	22- 28	50	7.500	1164287
2056/N2	28- 34	50	8.950	1164341
2056/N2	34- 40	50	10.050	1164406
2056/N2	40- 46	50	11.050	1164465
2056/N2	46- 52	50	12.400	1164511
2056/N2	52- 58	50	15.600	1164589

For two cables

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/N3	8- 12	50	4.300	1165127
2056/N3	12- 16	50	4.800	1165151
2056/N3	16- 22	50	6.500	1165224
2056/N3	22- 28	50	9.250	1165283
2056/N3	28- 34	50	11.300	1165348
2056/N3	34- 40	50	12.900	1165402
2056/N3	40- 46	50	14.850	1165461

For three cables



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable		For 2 cables		For 3 cables	
							H mm	L mm	H mm	L mm	H mm	L mm
8- 12	20	16	34	M6	1.5	5	34	34	49	47	65	47
12- 16	20	20	34	M6	1.5	5	38	34	57	47	77	47
16- 22	20	27	34	M6	1.5	5	44	34	70	47	96	59
22- 28	20	33	34	M6	2	5	51	34	84	47	115	59
28- 34	20	39	34	M8	2	5.5	59	37.5	97	56.5	136	56.5
34- 40	20	45	34	M8	2	5.5	66	37.5	110	56.5	155	71.5
40- 46	20	51	40	M8	2	5.5	72	37.5	124	56.5	176	71.5
46- 52	20	57	40	M8	2	6.5	79	38.5	137	57.5		
52- 58	23	64	40	M8	2.5	6.5	86	45.5	150	57.5		
58- 64	23	70	40	M8	2.5	6.5	92	45.5				
64- 70	23	76	40	M8	2.5	6.5	99	45.5				
70- 76	25	82	40	M8	2.5	6.5	104	45.5				
76- 82	25	88	40	M8	2.5	6.5	110	45.5				
82- 90	25	97	40	M8	3	6.5	120	45.5				
90-100	25	107	40	M8	3	6.5	131	57.5				

**2056/N, N2 and N3:** Also suitable for all C-profile rails with 11-12 mm slot width. At least 6.5 mm clear internal height and at least 18.5 mm clear internal width.

Clamp and screw of hot-dip galvanised steel, pressure sleeve of polypropylene, light grey (RAL 7035), halogen-free.

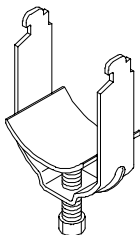
Version with weld-on nut and/or locknut for use under severe conditions and for shakeproofing on request.

**FT** Steel, hot-dip galvanised to DIN EN ISO 1461

**Accessories available:**  
 Opposite pressure sleeves 2058  
 Double pressure sleeves 2058/2

see page 86  
 see page 87

## U-clamps (BBS clamps)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056/N VA	8- 12	100	3.350	1166018
2056/N VA	12- 16	100	3.800	1166026
2056/N VA	16- 22	100	4.400	1166034
2056/N VA	22- 28	100	6.500	1166042
2056/N VA	28- 34	100	8.000	1166050
2056/N VA	34- 40	100	8.300	1166069
2056/N VA	40- 46	100	11.700	1166077
2056/N VA	46- 52	100	11.150	1166085
2056/N VA	52- 58	100	15.200	1166093
2056/N VA	58- 64	100	15.250	1166107
2056/N VA	64- 70	50	13.550	1166115
2056/N VA	70- 76	25	14.550	1166123
2056/N VA	76- 82	25	15.400	1166131
2056/N VA	82- 90	25	19.100	1166158

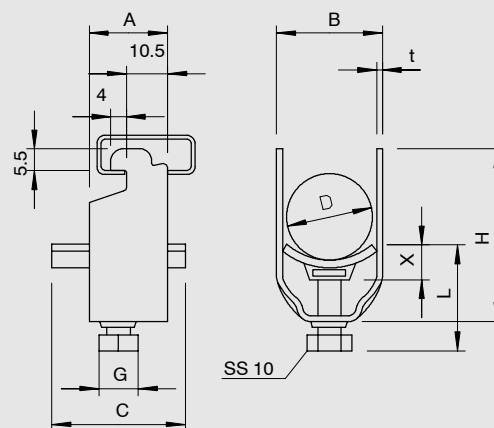
For one cable

**Accessories available:**

Opposite pressure sleeves

2058

see page 86

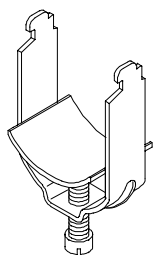


Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable	
							H mm	L mm
8- 12	20	16	34	M6	1.5	5	34	34
12- 16	20	20	34	M6	1.5	5	38	34
16- 22	20	27	34	M6	1.5	5	44	34
22- 28	20	33	34	M6	2	5	51	34
28- 34	20	39	34	M8	2	5.5	59	37.5
34- 40	20	45	34	M8	2	5.5	66	37.5
40- 46	20	51	40	M8	2	5.5	72	37.5
46- 52	20	57	40	M8	2	6.5	79	38.5
52- 58	23	64	40	M8	2.5	6.5	86	45.5
58- 64	23	70	40	M8	2.5	6.5	92	45.5
64- 70	23	76	40	M8	2.5	6.5	99	45.5
70- 76	25	82	40	M8	2.5	6.5	104	45.5
76- 82	25	88	40	M8	2.5	6.5	110	45.5
82- 90	25	97	40	M8	3	6.5	120	45.5
90-100	25	107	40	M8	3	6.5	131	57.5

**2056/N VA** : Also suitable for all C-profile rails with 11-12 mm slot width. At least 6.5 mm clear internal height and at least 18.5 mm clear internal width. Clamp and screw of stainless steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
(Stainless steel (VA) pressure sleeves on request)

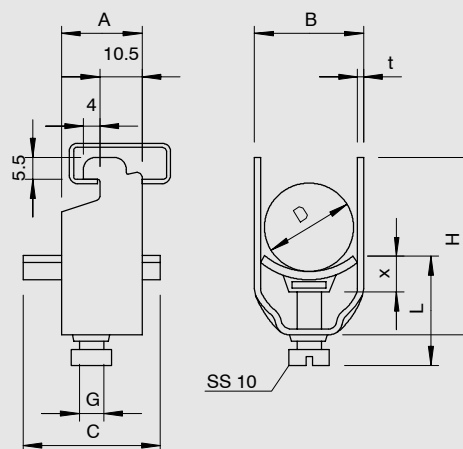
**VA** Stainless steel, material 1.4301

## U-clamps (BBS clamps)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. Alu
2056/N ALU	8- 12	100	0.900	1183605
2056/N ALU	12- 16	100	1.050	1183613
2056/N ALU	16- 22	100	1.200	1183621
2056/N ALU	22- 28	100	1.700	1183648
2056/N ALU	28- 34	100	2.200	1183656
2056/N ALU	34- 40	100	2.350	1183664
2056/N ALU	40- 46	100	2.850	1183672
2056/N ALU	46- 52	100	3.300	1183680
2056/N ALU	52- 58	100	4.100	1183699

For one cable



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable	
							H mm	L mm
8- 12	20	16	34	M6	1.5	5	34	34
12- 16	20	20	34	M6	1.5	5	38	34
16- 22	20	27	34	M6	1.5	5	44	34
22- 28	20	33	34	M6	2	5	51	34
28- 34	20	39	34	M8	2	5.5	59	37.5
34- 40	20	45	34	M8	2	5.5	66	37.5
40- 46	20	51	40	M8	2	5.5	72	37.5
46- 52	20	57	40	M8	2	6.5	79	38.5
52- 58	23	64	40	M8	2.5	6.5	86	45.5

**2056/N ALU:** Also suitable for all profile rails with 11-12 mm slot width. At least 6.5 mm clear internal height and at least 18.5 mm clear internal width. Clamp and screw of aluminium AlMg3, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035) (Metal pressure sleeves on request)

The version of U-clamps **2056/N ALU** for 1 cable to VDE 0298-1 is suitable for single installation of single-conductor cables in three-phase systems, since there is no closed iron circuit in this case. However, the lower mechanical strength of aluminium clamps in the event of short circuit must be taken into account, i.e.: clamps as close together as possible along the length of the cable, and sufficient lateral spacing between the cables.

### Accessories available:

Opposite pressure sleeves

2058

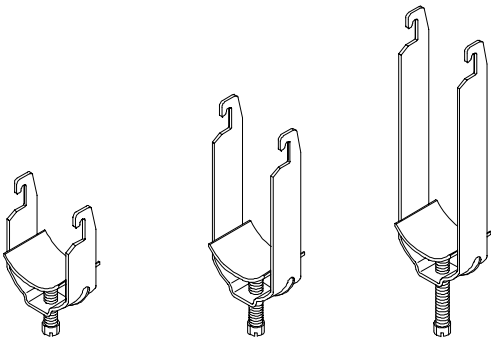
2058/FW

see page 86

see page 86

**Alu** Aluminium

## U-clamps (BBS clamps)



halogen-free  
chlorine  
fluorine  
chromium

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/U	8- 12	100	3.150	1175122
2056/U	12- 16	100	3.600	1175165
2056/U	16- 22	100	4.200	1175211
2056/U	22- 28	100	5.800	1175289
2056/U	28- 34	100	7.500	1175343
2056/U	34- 40	100	8.100	1175408
2056/U	40- 46	100	10.000	1175467
2056/U	46- 52	100	11.200	1175521
2056/U	52- 58	100	13.400	1175580
2056/U	58- 64	100	14.300	1175645
2056/U	64- 70	50	15.250	1175696
2056/U	70- 76	25	20.600	1175769
2056/U	76- 82	25	22.000	1175823
2056/U	82- 90	25	26.200	1175904
2056/U	90- 100	25	30.000	1175998

For one cable

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/U2	8- 12	50	2.850	1176129
2056/U2	12- 16	50	3.050	1176161
2056/U2	16- 22	50	4.950	1176226
2056/U2	22- 28	50	8.400	1176285
2056/U2	28- 34	50	9.500	1176331
2056/U2	34- 40	50	10.800	1176404
2056/U2	40- 46	50	11.350	1176463
2056/U2	46- 52	50	15.050	1176528
2056/U2	52- 58	50	19.750	1176587

For two cables

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/U3	8- 12	50	4.750	1177125
2056/U3	12- 16	50	4.850	1177168
2056/U3	16- 22	50	6.600	1177222
2056/U3	22- 28	50	10.500	1177281
2056/U3	28- 34	50	13.250	1177346
2056/U3	34- 40	50	14.400	1177400
2056/U3	40- 46	50	18.950	1177451

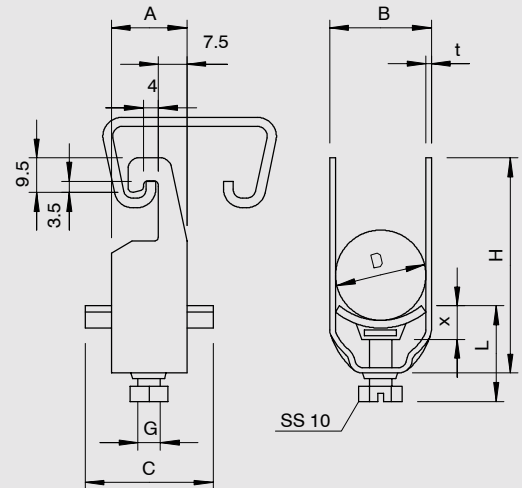
For three cables

**Accessories available:**

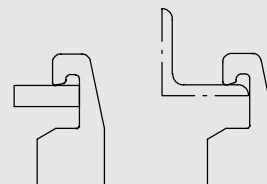
Opposite pressure sleeves  
Double pressure sleeves

2058/FW  
2058/2

see page 86  
see page 87



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable		For 2 cables		For 3 cables	
							H mm	L mm	H mm	L mm	H mm	L mm
8- 12	20	16	34	M6	1.5	5	42	34	56	34	70	47
12- 16	20	20	34	M6	1.5	5	46	34	64	34	82	47
16- 22	20	27	34	M6	1.5	5	53	34	77	47	101	47
22- 28	20	33	34	M6	2	5	59	34	89	47	119	47
28- 34	20	39	34	M8	2	5.5	67	37.5	103	44.5	139	44.5
34- 40	20	45	34	M8	2	5.5	73	37.5	115	44.5	157	44.5
40- 46	20	51	40	M8	2	5.5	79	37.5	128	44.5	177	56.5
46- 52	20	57	40	M8	2	6.5	85	38.5	140	45.5		
52- 58	23	64	40	M8	2.5	6.5	91	38.5	152	45.5		
58- 64	23	70	40	M8	2.5	6.5	97	38.5				
64- 70	23	76	40	M8	2.5	6.5	103	38.5				
70- 76	25	82	40	M8	2.5	6.5	110	45.5				
76- 82	25	88	40	M8	2.5	6.5	116	45.5				
82- 90	25	97	40	M8	3	6.5	125	45.5				
90-100	25	107	40	M8	3	6.5	135	45.5				



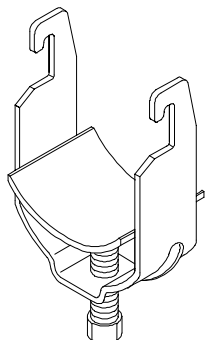
Examples of application: Flat and angle bar

**2056/U, U 2 and U 3:** Also suitable for flat, angle and U-bar 4-12 mm thick. Clamp and screw of hot-dip galvanised steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035) (Steel pressure sleeves on request)

Version with weld-on nut and/or locknut for use under severe conditions and for shakeproofing on request.

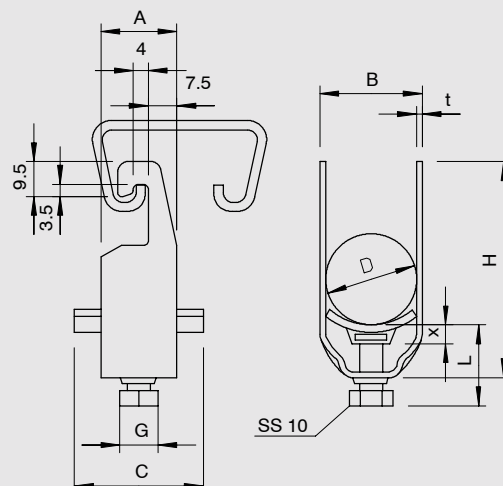
**FT** Steel, hot-dip galvanised to DIN EN ISO 1461

## U-clamps (BBS clamps)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056/U VA	8- 12	100	3.000	1178504
2056/U VA	12- 16	100	3.200	1178512
2056/U VA	16- 22	100	3.800	1178520
2056/U VA	22- 28	100	5.350	1178539
2056/U VA	28- 34	100	7.200	1178547
2056/U VA	34- 40	100	8.100	1178555
2056/U VA	40- 46	100	9.900	1178563
2056/U VA	46- 52	100	11.200	1178571
2056/U VA	52- 58	100	13.400	1178598
2056/U VA	58- 64	100	14.300	1178601
2056/U VA	64- 70	50	15.250	1178628
2056/U VA	70- 76	25	19.100	1178636
2056/U VA	76- 82	25	20.500	1178644
2056/U VA	82- 90	25	24.700	1178652

For one cable



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	H mm	L mm
8- 12	20	16	34	M6	1.5	5	42	34
12- 16	20	20	34	M6	1.5	5	46	34
16- 22	20	27	34	M6	1.5	5	53	34
22- 28	20	33	34	M6	2	5	59	34
28- 34	20	39	34	M8	2	5.5	67	37.5
34- 40	20	45	34	M8	2	5.5	73	37.5
40- 46	20	51	40	M8	2	5.5	79	37.5
46- 52	20	57	40	M8	2	6.5	85	38.5
52- 58	23	64	40	M8	2.5	6.5	91	38.5
58- 64	23	70	40	M8	2.5	6.5	97	38.5
64- 70	23	76	40	M8	2.5	6.5	103	38.5
70- 76	25	82	40	M8	2.5	6.5	110	45.5
76- 82	25	88	40	M8	2.5	6.5	116	45.5
82- 90	25	97	40	M8	3	6.5	125	45.5
90-100	25	107	40	M8	3	6.5	135	45.5

**2056/U VA:** Also suitable for flat, angle and U-bar 4-12 mm thick.  
Clamp and screw of stainless steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
(Stainless steel (VA) pressure sleeves on request)

### Accessories available:

Opposite pressure sleeves

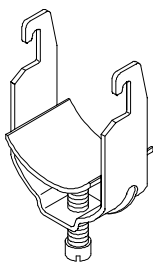
2058/FW

see page 86

**VA** Stainless steel, material 1.4301

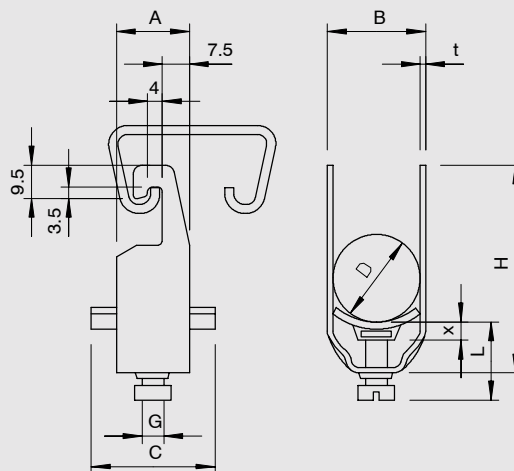


## U-clamps (BBS clamps)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. Alu
2056/U ALU	8- 12	100	1.100	1184407
2056/U ALU	12- 16	100	1.200	1184415
2056/U ALU	16- 22	100	1.350	1184423
2056/U ALU	22- 28	100	1.950	1184431
2056/U ALU	28- 34	100	2.550	1184458
2056/U ALU	34- 40	100	2.800	1184466
2056/U ALU	40- 46	100	3.600	1184474
2056/U ALU	46- 52	100	3.950	1184482
2056/U ALU	52- 58	100	4.900	1184490
2056/U ALU	58- 64	100	5.250	1184504
2056/U ALU	64- 70	50	5.600	1184539
2056/U ALU	70- 76	25	7.050	1184512
2056/U ALU	76- 82	25	7.550	1184520
2056/U ALU	82- 90	25	9.050	1184547

For one cable



Clamping range D	A mm	B mm	C mm	G mm	t mm	x ca mm	For 1 cable	
							H mm	L mm
8- 12	20	16	34	M6	1.5	5	42	34
12- 16	20	20	34	M6	1.5	5	46	34
16- 22	20	27	34	M6	1.5	5	53	34
22- 28	20	33	34	M6	2	5	59	34
28- 34	20	39	34	M8	2	5.5	67	37.5
34- 40	20	45	34	M8	2	5.5	73	37.5
40- 46	20	51	40	M8	2	5.5	79	37.5
46- 52	20	57	40	M8	2	6.5	85	38.5
52- 58	23	64	40	M8	2.5	6.5	91	38.5
58- 64	23	70	40	M8	2.5	6.5	97	38.5
64- 70	23	76	40	M8	2.5	6.5	103	38.5
70- 76	25	82	40	M8	2.5	6.5	110	45.5
76- 82	25	88	40	M8	2.5	6.5	116	45.5
82- 90	25	97	40	M8	3	6.5	125	45.5

**2056/U ALU:** Also suitable for flat, angle and U-bar 4-12 mm thick.  
Clamp and screw of aluminium AlMg 3, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
(Metal pressure sleeves on request)

The version of U-clamps **2056/U ALU** for 1 cable to VDE 0298-1 is suitable for single installation of single-conductor cables in three-phase systems, since there is no closed iron circuit in this case. However, the lower mechanical strength of aluminium clamps in the event of short circuit must be taken into account, i.e.: clamps as close together as possible along the length of the cable, and sufficient lateral spacing between the cables.

**Accessories available:**  
Opposite pressure sleeves

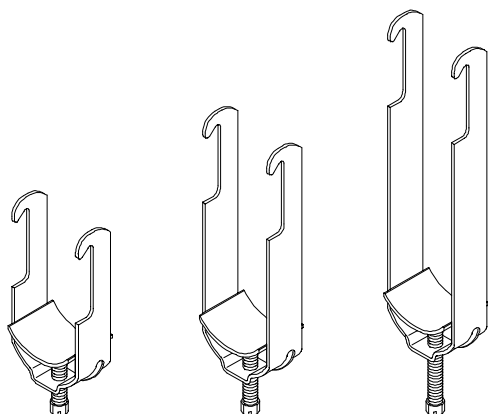
2058/FW

see page 86

**Alu** Aluminium

## U-clamps (BBS clamps)

For angle bars with 40 mm leg length



halogen-free  
~~chlorine~~  
~~fluorine~~  
~~bromine~~

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/W	8- 12	100	4.450	1180126
2056/W	12- 16	100	4.890	1180169
2056/W	16- 22	100	5.700	1180223
2056/W	22- 28	100	7.800	1180282
2056/W	28- 34	100	9.400	1180347
2056/W	34- 40	100	10.000	1180401
2056/W	40- 46	100	12.800	1180460
2056/W	46- 52	100	13.600	1180525
2056/W	52- 58	50	17.100	1180584
2056/W	58- 64	50	18.600	1180649
2056/W	64- 70	50	18.500	1180681
2056/W	70- 76	25	20.600	1180762
2056/W	76- 82	25	22.000	1180827
2056/W	82- 90	25	26.200	1180908
2056/W	90-100	25	30.000	1180991

For one cable

Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/W2	8- 12	50	5.150	1181122
2056/W2	12- 16	50	5.700	1181165
2056/W2	16- 22	50	7.050	1181211
2056/W2	22- 28	50	10.350	1181289
2056/W2	28- 34	50	11.600	1181343
2056/W2	34- 40	50	12.700	1181408
2056/W2	40- 46	50	16.750	1181467
2056/W2	46- 52	50	18.200	1181521
2056/W2	52- 58	50	23.000	1181580

For two cables

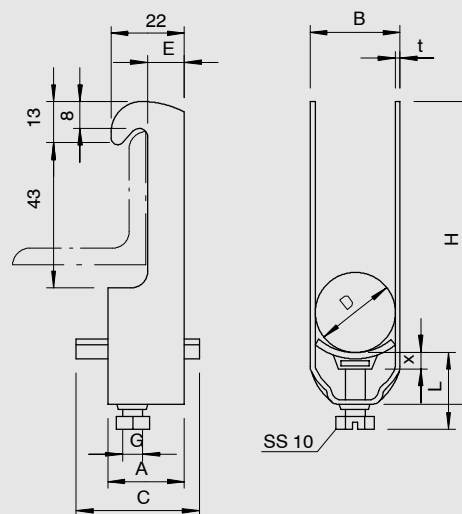
Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. FT
2056/W3	8- 12	50	6.500	1182129
2056/W3	12- 16	50	7.050	1182161
2056/W3	16- 22	50	8.100	1182226
2056/W3	22- 28	50	12.450	1182285
2056/W3	28- 34	50	14.850	1182331
2056/W3	34- 40	50	16.600	1182404
2056/W3	40- 46	50	21.400	1182463

For three cables

**Accessories available:**  
 Opposite pressure sleeves  
 Double pressure sleeves

2058/FW  
 2058/2

see page 86  
 see page 87



Clamping range D	A mm	B mm	C mm	E mm	G mm	t mm	x ca mm
8- 12	23	16	34	11	M6	1.5	5
12- 16	23	20	34	11	M6	1.5	5
16- 22	23	27	34	11	M6	1.5	5
22- 28	23	33	34	11	M6	2	5
28- 34	23	39	34	11	M8	2	5.5
34- 40	23	45	34	11	M8	2	5.5
40- 46	25	51	40	13.5	M8	2	5.5
46- 52	25	57	40	13.5	M8	2	6.5
52- 58	25	64	40	13.5	M8	2.5	6.5
58- 64	25	70	40	13.5	M8	2.5	6.5
64- 70	25	76	40	13.5	M8	2.5	6.5
70- 76	25	82	40	13.5	M8	2.5	6.5
76- 82	25	88	40	13.5	M8	2.5	6.5
82- 90	25	97	40	13.5	M8	3	6.5
90-100	25	107	40	13.5	M8	3	6.5

Clamping range D	For 1 cable		For 2 cables		For 3 cables	
	H mm	L mm	H mm	L mm	H mm	L mm
8- 12	74	27	88	34	102	34
12- 16	78	27	96	34	114	34
16- 22	85	27	109	34	133	47
22- 28	91	27	121	34	151	47
28- 34	99	31.5	135	37.5	171	44.5
34- 40	105	31.5	147	37.5	189	44.5
40- 46	111	31.5	160	37.5	209	44.5
46- 52	117	32.5	172	38.5		
52- 58	123	32.5	185	38.5		
58- 64	130	32.5				
64- 70	136	32.5				
70- 76	143	38.5				
76- 82	149	38.5				
82- 90	158	38.5				
90-100	168	38.5				

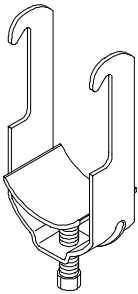
**2056/W, W 2 and W 3:** Also suitable for angle bars with 40 mm leg length. Clamp and screw of hot-dip galvanised steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035) (Steel pressure sleeves on request)

Version with weld-on nut and/or locknut for use under severe conditions and for shakeproofing on request.

U-clamps for angle bars with 25, 30 and 50 mm leg length on request.

**FT** Steel, hot-dip galvanised to DIN EN ISO 1461

**U-clamps (BBS clamps)**



halogen-free  
~~chlorine~~  
~~fluorine~~  
~~bromine~~

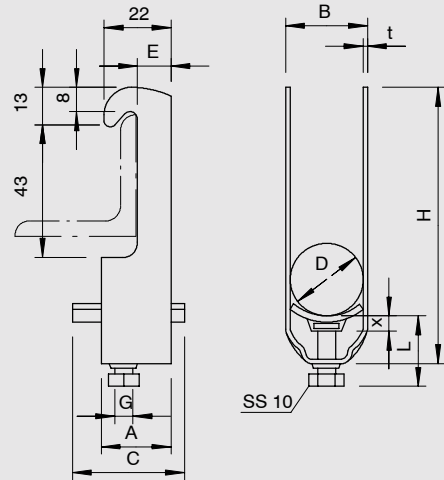
Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056/W VA	8- 12	100	4.450	1185403
2056/W VA	12- 16	100	4.890	1185411
2056/W VA	16- 22	100	5.700	1185438
2056/W VA	22- 28	100	7.800	1185446
2056/W VA	28- 34	100	9.400	1185454
2056/W VA	34- 40	100	10.000	1185462
2056/W VA	40- 46	100	12.800	1185470
2056/W VA	46- 52	100	13.600	1185489
2056/W VA	52- 58	50	17.100	1185497
2056/W VA	58- 64	50	18.000	1185500

For one cable

**Accessories available:**  
Opposite pressure sleeves

2058/FW

see page 86



Clamping range D	A mm	B mm	C mm	E mm	G mm	t mm	x ca mm	For 1 cable H mm	L mm
8- 12	23	16	34	11	M6	1.5	5	74	27
12- 16	23	20	34	11	M6	1.5	5	78	27
16- 22	23	27	34	11	M6	1.5	5	85	27
22- 28	23	33	34	11	M6	2	5	91	27
28- 34	23	39	34	11	M8	2	5.5	99	31.5
34- 40	23	45	34	11	M8	2	5.5	105	31.5
40- 46	25	51	40	13.5	M8	2	5.5	111	31.5
46- 52	25	57	40	13.5	M8	2	6.5	117	32.5
52- 58	25	64	40	13.5	M8	2.5	6.5	123	32.5
58- 64	25	70	40	13.5	M8	2.5	6.5	130	32.5

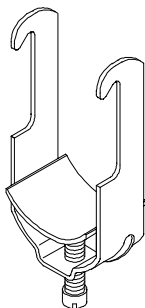
**2056/W VA:** Also suitable for angle bars with 40 mm leg length.  
Clamp and screw of stainless steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
(Stainless steel (VA) pressure sleeves on request)

U-clamps for angle bars with 25, 30 and 50 mm leg length on request.

**VA** Stainless steel, material 1.4301

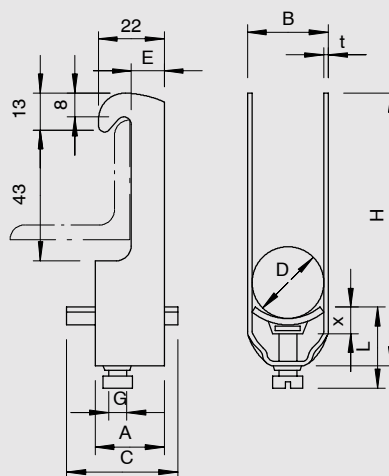
## U-clamps (BBS clamps)

For angle bars with 40 mm leg length



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. <b>Alu</b>
2056/W ALU	8- 12	100	1.600	<b>1184008</b>
2056/W ALU	12- 16	100	1.800	<b>1184016</b>
2056/W ALU	16- 22	100	1.900	<b>1184024</b>
2056/W ALU	22- 28	100	2.550	<b>1184032</b>
2056/W ALU	28- 34	100	3.200	<b>1184040</b>
2056/W ALU	34- 40	100	3.500	<b>1184059</b>
2056/W ALU	40- 46	100	4.550	<b>1184067</b>
2056/W ALU	46- 52	100	4.800	<b>1184075</b>
2056/W ALU	52- 58	50	5.850	<b>1184083</b>
2056/W ALU	58- 64	50	6.450	<b>1184091</b>

For one cable



Clamping range D	A mm	B mm	C mm	E mm	G mm	t mm	x ca mm	For 1 cable	
								H mm	L mm
8- 12	23	16	34	11	M6	1.5	5	74	27
12- 16	23	20	34	11	M6	1.5	5	78	27
16- 22	23	27	34	11	M6	1.5	5	85	27
22- 28	23	33	34	11	M6	2	5	91	27
28- 34	23	39	34	11	M8	2	5.5	99	31.5
34- 40	23	45	34	11	M8	2	5.5	105	31.5
40- 46	25	51	40	13.5	M8	2	5.5	111	31.5
46- 52	25	57	40	13.5	M8	2	6.5	117	32.5
52- 58	25	64	40	13.5	M8	2.5	6.5	123	32.5
58- 64	25	70	40	13.5	M8	2.5	6.5	130	32.5

**2056/W ALU:** Also suitable for angle bars with 40 mm leg length. Clamp and screw of aluminium AlMg3, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035) (Metal pressure sleeves on request)

The version of U-clamps **2056/W ALU** for 1 cable to VDE 0298-1 is suitable for single installation of single-conductor cables in three-phase systems, since there is no closed iron circuit in this case. However, the lower mechanical strength of aluminium clamps in the event of short circuit must be taken into account, i.e.: clamps as close together as possible along the length of the cable, and sufficient lateral spacing between the cables.

U-clamps for angle bars with 25, 30 and 50 mm leg length on request.

**Alu** Aluminium

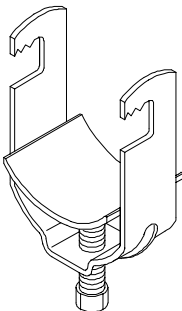
**Accessories available:**  
Opposite pressure sleeves

2058/FW

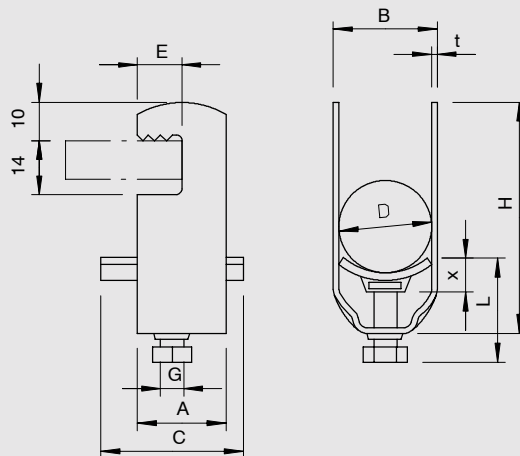
see page 86

## U-clamps

For flat bars



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. VA
2056/F VA	8- 12	100	3.700	1185004
2056/F VA	12- 16	100	3.900	1185012
2056/F VA	16- 22	100	4.500	1185020
2056/F VA	22- 28	100	6.000	1185039
2056/F VA	28- 34	100	8.000	1185047
2056/F VA	34- 40	100	8.500	1185055
2056/F VA	40- 46	100	10.600	1185063
2056/F VA	46- 52	100	11.700	1185071
2056/F VA	52- 58	100	13.050	1185098
2056/F VA	58- 64	100	14.800	1185101



Clamping range D	A mm	B mm	C mm	E mm	G mm	t mm	x ca mm	For 1 cable H mm	L mm
8- 12	23	16	34	13	M6	1.5	5	43	34
12- 16	23	20	34	13	M6	1.5	5	47	34
16- 22	23	27	34	13	M6	1.5	5	54	34
22- 28	23	33	34	13	M6	2	5	60	34
28- 34	23	39	34	13	M8	2	5.5	68	37.5
34- 40	23	45	34	13	M8	2	5.5	74	37.5
40- 46	25	51	40	13	M8	2	5.5	80	37.5
46- 52	25	57	40	13	M8	2	6.5	86	38.5
52- 58	25	64	40	13	M8	2.5	6.5	92	38.5
58- 64	25	70	40	13	M8	2.5	6.5	98	38.5

**2056/F VA:** For flat, angle and U-bars 4-12 mm thick.  
Clamp and screw of stainless steel, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
(Stainless steel (VA) pressure sleeve on request)



Type	Clamping range mm	Pack qty	Weight kg/100	Ord. no. Alu
2056/F ALU	8- 12	100	1.200	1184709
2056/F ALU	12- 16	100	1.250	1184717
2056/F ALU	16- 22	100	1.450	1184725
2056/F ALU	22- 28	100	2.050	1184733
2056/F ALU	28- 34	100	2.650	1184741
2056/F ALU	34- 40	100	2.850	1184768
2056/F ALU	40- 46	100	3.650	1184776
2056/F ALU	46- 52	100	3.850	1184784
2056/F ALU	52- 58	100	4.800	1184792
2056/F ALU	58- 64	100	5.450	1184806

For one cable

**2056/F ALU:** For flat, angle and U-bars 4-12 mm thick.  
Clamp and screw of aluminium AlMg3, pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)  
(Metal pressure sleeve on request)

The version of U-clamps **2056/F ALU** for 1 cable to VDE 0298-1 is suitable for single installation of single-conductor cables in three-phase systems, since there is no closed iron circuit in this case. However, the lower mechanical strength of aluminium clamps in the event of short circuit must be taken into account, i.e.: clamps as close together as possible along the length of the cable, and sufficient lateral spacing between the cables.

**Accessories available:**  
Opposite pressure sleeves

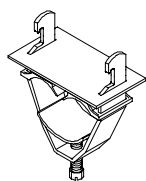
2058/FW

see page 86

**VA** Stainless steel, material 1.4301  
**Alu** Aluminium

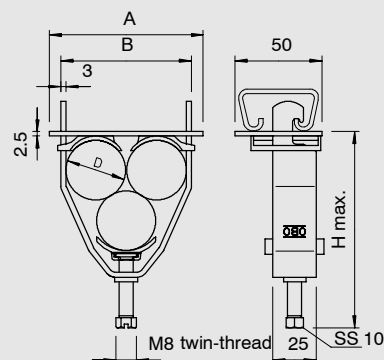
## U-clamps (BBS clamps)

For 3 single-conductor cables



Type	For 3 cables mm Ø	Pack qty	Weight kg/100	Ord. no. FT
2056/U-E	25-28	25	20.000	1174509
2056/U-E	28-31	25	19.500	1174541
2056/U-E	31-34	25	23.000	1174517
2056/U-E	34-37	25	24.600	1174568
2056/U-E	37-40	25	26.000	1174525
2056/U-E	40-44	25	28.000	1174576

Including opposite pressure sleeves and spacer plate



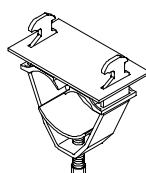
For cable Ø mm	A mm	B mm	H max. mm
25-28	77	63	101
28-31	83	69	107
31-34	89	75	112
34-37	95	81	118
37-40	101	87	123
40-44	109	95	143

**2056/U-E:** Clamp, screw and backplate of hot-dip galvanised steel, pressure sleeve and opposite pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)

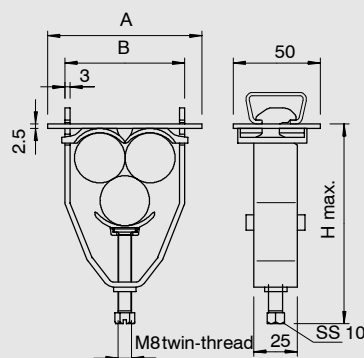
Supplied complete with backplate and opposite pressure sleeves.

U-clamps **2056/U-E** are used for system installation of single-conductor cables in three-phase systems. Since the magnetic fields cancel each other out with this type of installation, there is no risk of temperature rise and steel clamps can be used.

**FT** Steel, hot-dip galvanised to DIN EN ISO 1461



Type	For 3 cables mm Ø	Pack qty	Weight kg/100	Ord. no. FT
2056/E 31	28-31	25	19.500	1174606
2056/E 37	34-37	25	24.600	1174614
2056/E 44	40-44	25	28.300	1174630



For cable Ø mm	A mm	B mm	H max. mm
28-31	83	69	107
34-37	95	81	118
40-44	109	95	143

**2056/E:** Clamp, screw and backplate of hot-dip galvanised steel, pressure sleeve and opposite pressure sleeve of polypropylene, halogen-free, light grey (RAL 7035)

Supplied complete with backplate and opposite pressure sleeves.

U-clamps **2056/E** are used for system installation of single-conductor cables in three-phase systems. Since the magnetic fields cancel each other out with this type of installation, there is no risk of temperature rise and steel clamps can be used.

**2056/E** is suitable for all profile rails with 16-17 mm slot width.

**FT** Steel, hot-dip galvanised to DIN EN ISO 1461

## Opposite pressure sleeves

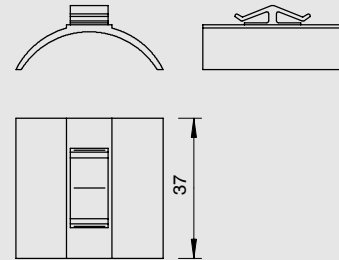


Type	Clamping range mm	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2058	8- 12	2700	100	0.177	1195123
2058	12- 16	2700	100	0.189	1195166
2058	16- 22	2700	100	0.187	1195220
2058	22- 28	1800	100	0.244	1195271
2058	28- 34	1000	100	0.303	1195344
2058	34- 40	1200	100	0.325	1195409
2058	40- 46	1200	100	0.409	1195468
2058	46- 52	1200	100	0.442	1195522
2058	52- 58	1200	100	0.486	1195581
2058	58- 64	500	50	0.540	1195646
2058	64- 70	500	50	0.550	1195700

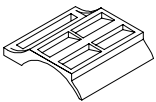
For profile rails with 16-17 mm slot width

**Suitable for:**

U-clamps 2056/... see page 72



**PP** Polypropylene, light grey (RAL 7035)

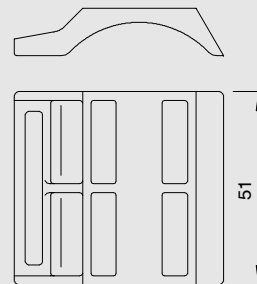


Type	Clamping range mm	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2058/FW	8- 12	2700	100	0.156	1197126
2058/FW	12- 16	2700	100	0.183	1197169
2058/FW	16- 22	2700	100	0.200	1197223
2058/FW	22- 28	1800	100	0.233	1197282
2058/FW	28- 34	1200	100	0.360	1197347
2058/FW	34- 40	1200	100	0.414	1197401
2058/FW	40- 46	1000	100	0.545	1197460
2058/FW	46- 52	1000	100	0.576	1197525
2058/FW	52- 58	1000	100	0.603	1197584
2058/FW	58- 64	500	50	0.680	1197649
2058/FW	64- 70	500	50	0.764	1197703
2058/FW	70- 76	500	25	0.924	1197762
2058/FW	76- 82	500	25	0.998	1197827
2058/FW	82- 90	500	25	1.070	1197908
2058/FW	90- 100	500	25	1.150	1197991

Can be used universally

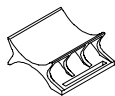
**Suitable for:**

U-clamps 2056/... see page 72  
 2056 VA see page 73  
 2056/ALU see page 74  
 2056/N see page 75  
 2056/U see page 78  
 2056/W see page 81



**PP** Polypropylene, light grey (RAL 7035)

## Double pressure sleeves

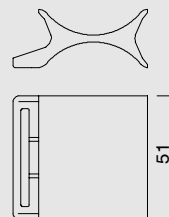


Type	Clamping range mm	Carton qty	Pack qty	Weight kg/100	Ord. no. PP
2058/2	8- 12	1350	50	0.170	1196111
2058/2	12- 16	1350	50	0.225	1196162
2058/2	16- 22	1350	50	0.287	1196227
2058/2	22- 28	900	50	0.382	1196286
2058/2	28- 34	1000	50	0.470	1196340
2058/2	34- 40	500	50	0.700	1196405
2058/2	40- 46	800	50	0.886	1196464
2058/2	46- 52	600	50	1.112	1196529
2058/2	52- 58	600	50	1.156	1196588

**Suitable for:**

U-clamps

2056/2 & 2056/3	see page 72
2056/2 VA & 2056/3 VA	see page 73
2056/N2 & 2056/N3	see page 75
2056/U 2 & 2056/U3	see page 78
2056/W 2 & 2056/W 3	see page 81



**PP** Polypropylene, light grey (RAL 7035)



# Halogen-free components

## VBS. Screw-in and knock-in systems

Angler expanding plugs

Multi-purpose plugs

Aerated concrete plugs

Knock-in fixings

Push-fit plugs

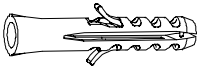
halogen-free

~~chlorine  
fluorine  
bromine~~

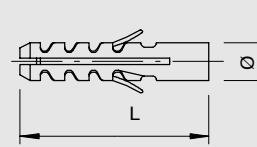


**OBO**  
BETTERMANN

## OBO-Angler expanding plugs



Type	Size/plug length mm	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
910/N	5x25	9000	100	0.051	2349043
910/N	6x30	5000	100	0.052	2349051
910/N	6x60	3000	100	0.080	2349078
910/N	8x40	3000	100	0.140	2349086
910/N	10x50	1500	50	0.306	2349108
910/N	12x60	750	25	0.459	2349124

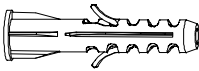


Size Ø	Plug length L mm	For DIN 96 screw Ø mm	Drilled hole Ø mm	Pull-out force (at max. screw Ø) (N min. concrete)
5	25	2.5- 4	5	1600
6	30	3.5- 5	6	1850
6	60	3.5- 5	6	1850
8	40	4.5- 6	8	3000
10	50	6 - 8	10	6000
12	60	8 -10	12	9000

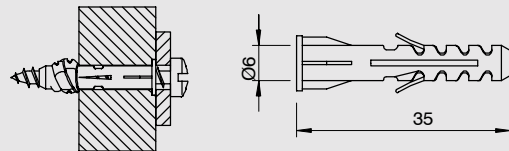
**910/N:** Required minimum screw length = plug length + component thickness + 1 x screw Ø

**PA** Polyamide, grey-white (RAL 9002)

## OBO multi-purpose plugs



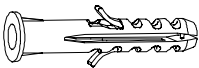
Type	Size/plug length mm	Pack qty	Weight kg/100	Ord. no. PA
910/MZ	6x35	100	0.055	2347539



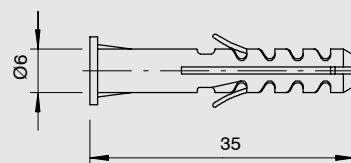
**910/MZ:** Drilled hole Ø: 6 mm  
Can also be used as a cavity anchor, with collars to prevent slipping. Four tabs take up the torque.  
Required minimum screw length = plug length + component thickness + 1 x screw Ø 4 mm

**PA** Polyamide, grey-white (RAL 9002)

## OBO expanding plugs



Type	Size/plug length mm	Pack qty	Weight kg/100	Ord. no. PA
910/D	6x35	100	0.055	2348039

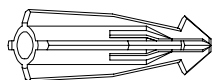


Size	For DIN 96 screw Ø mm	Pull-out force (at max. screw Ø, N min. in concrete)	Drilled hole Ø mm
6	3.5-5	1850	6

**910/D:** Drilled hole Ø: 6 mm, with collars to prevent slipping  
Required minimum screw length = plug length + component thickness + 1 x screw Ø  
Especially suitable for less solid materials. The screws can be screwed in from the start with an axial force, preventing the anchor turning in the hole.

**PA** Polyamide, grey-white (RAL 9002)

## Aerated concrete plugs

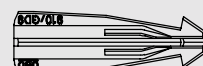


Type	Size/plug length mm	Pack qty	Weight kg/100	Ord. no. PA-GV
910/GD	6x35	100	0.100	2347229
910/GD	8x50	50	0.305	2347261



910/GD 6 x 35	Aerated concrete Strength class	Screw type to be used	Drilled hole Ø mm	Breaking load kN
	G2	Sprint screw Ø 4 mm	none	0.2
		Woodscrew Ø 4 mm	none	0.3
	G4	Sprint screw Ø 4 mm	none 5	0.4 0.3
		Woodscrew Ø 4 mm	none 5	0.6 0.4
	G6	Sprint screw Ø 4 mm	6	0.6
Woodscrew Ø 4 mm		6	0.6	

910/GD 6x35: To be driven into porous concrete (aerated concrete)  
Screw length: Component thickness + 40 mm

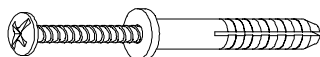


910/GD 8x50	Aerated concrete Strength class	Screw type to be used	Drilled hole Ø mm	Breaking load kN
	G2	Rapid screw Ø 6 mm	none 6	0.5 0.5
		Woodscrew Ø 6 mm	none 6	0.6 0.6
	G4	Rapid screw Ø 6 mm	none 6	1.0 0.8
		Woodscrew Ø 6 mm	none 6	1.4 1.2
	G6	Rapid screw Ø 6 mm	8	1.4
Woodscrew Ø 6 mm		8	1.6	

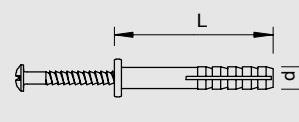
910/GD 8x50: To be driven into porous concrete (aerated concrete)  
Screw length: Component thickness + 55 mm

PA-GV Polyamide, glassfibre-reinforced, grey-white (RAL 9002)

## OBO knock-in fixings



Type	Size/plug length mm	Carton qty	Pack qty	Weight kg/100	Ord. no. PA
910/SD	5x35	1200	100	0.360	2351021
910/SD	6x25	1200	100	0.310	2351056
910/SD	6x40	1200	100	0.555	2351064
910/SD	8x50	600	50	1.070	2351099



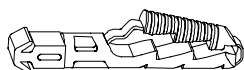
Size = d x L

910/SD: Screw: Steel, hardened, electro-galvanised, yellow-chromated

PA Polyamide, grey-white (RAL 9002)



## OBO push-fit plugs



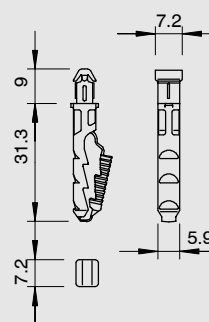
Type	Size/plug length mm	Pack qty	Weight kg/100	Ord. no. PA
<b>910/STD</b>	6x35	100	0.100	<b>2351315</b>

For installing OBO Quick clips 2955/GL and 2955 F/GL

**Suitable for:**  
Junior-Quick

2950

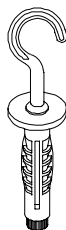
see page 43



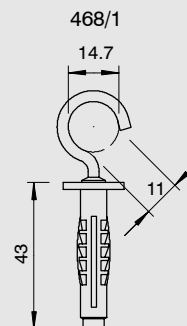
**PA** Polyamide, grey-white (RAL 9002)

## OBO expanding plugs

468/1



Type	With accessory	Pack qty	Weight kg/100	Ord. no. PA
<b>468/1</b>	Ceiling hook	100	1.008	<b>3476014</b>



Type	Hook Ø mm	Drilled hole Ø mm	Breaking load N
468/1	15	8	200

468/: With accessory, steel, electro-galvanised

**PA** Polyamide

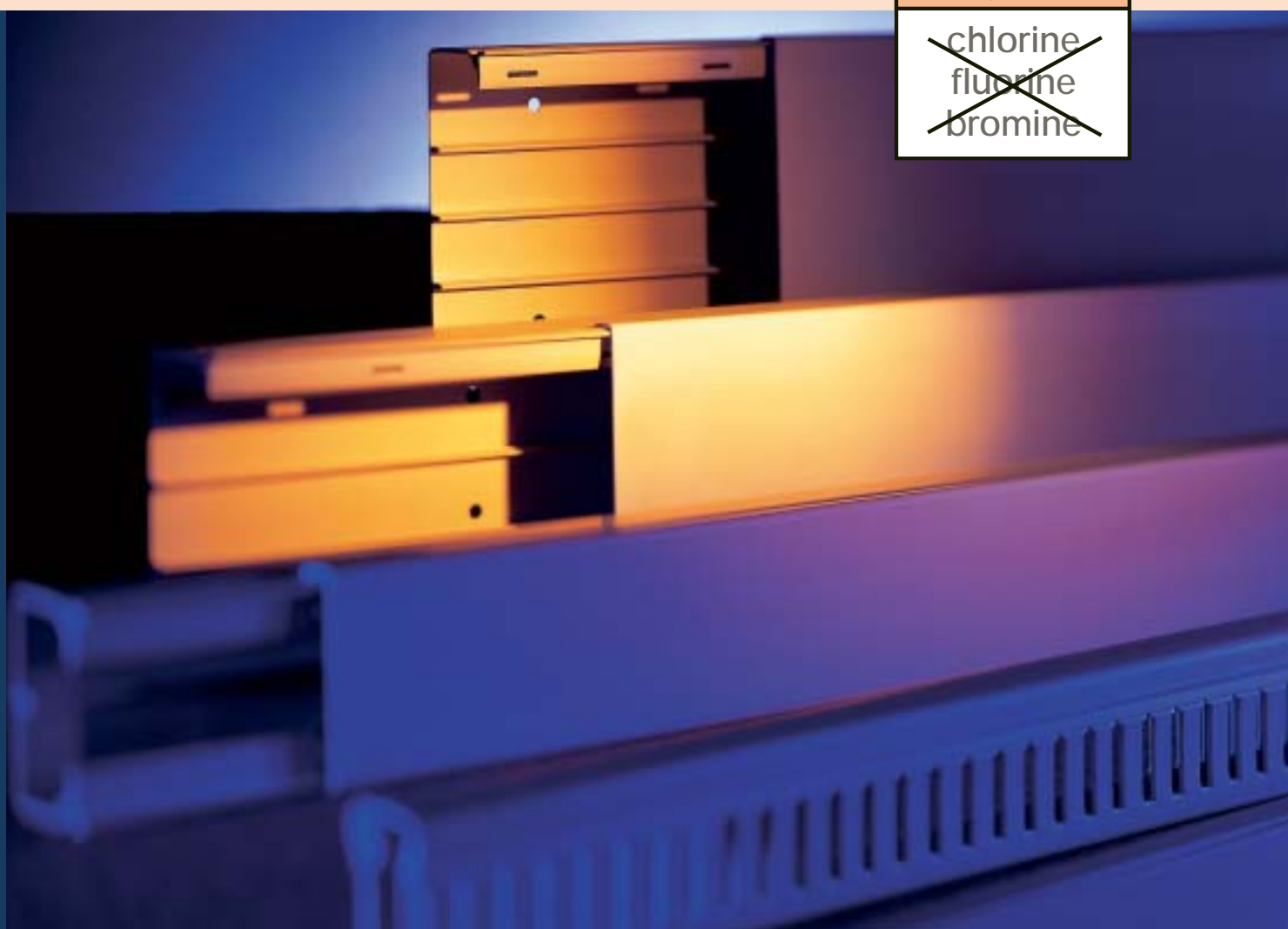
# Halogen-free components

## LFS. Installation duct systems

WDK line routing ducts, plastic  
VK wiring ducts

halogen-free

~~chlorine  
fluorine  
bromine~~



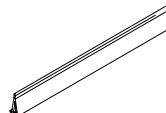
**OBO**  
BETTERMANN



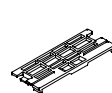
### Cover and base

Stock length: 2000 mm  
Perforated base

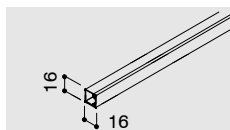
### Partition



### Cover clip

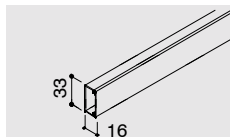


### Socket



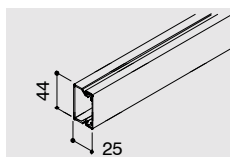
**WDK-H 15015**  
Packing: 60 m  
Wt: 0.075 kg/m

Colour	Ord. no.
light grey	<b>6173200</b>



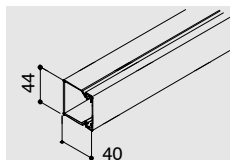
**WDK-H 15030**  
Packing: 40 m  
Wt: 0.135 kg/m

Colour	Ord. no.
light grey	<b>6173204</b>



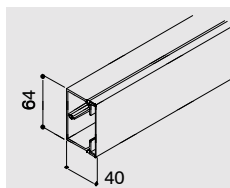
**WDK-H 25040**  
Packing: 12 m  
Wt: 0.155 kg/m

Colour	Ord. no.
light grey	<b>6173216</b>



**WDK-H 40040**  
Packing: 28 m  
Wt: 0.425 kg/m

Colour	Ord. no.
light grey	<b>6173228</b>



**WDK-H 40060**  
Packing: 16 m  
Wt: 0.505 kg/m

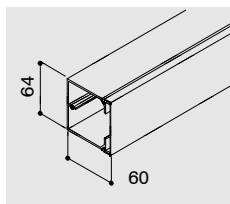
Colour	Ord. no.
light grey	<b>6173232</b>

**TW-H 4-40**  
Packing: 40 m  
Wt: 0.225 kg/pc

Ord. no.
<b>6173500</b>

**OK-H 60**  
Packing: 50 pcs  
Wt: 0.003 kg/pc

Ord. no.
<b>6173519</b>



**WDK-H 60060**  
Packing: 24 m  
Wt: 0.680 kg/m

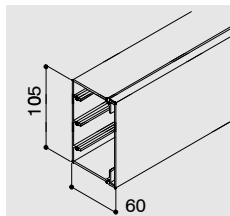
Colour	Ord. no.
light grey	<b>6173244</b>

**TW-H 4-60**  
Packing: 40 m  
Wt: 0.225 kg/pc

Ord. no.
<b>6173504</b>

**OK-H 60**  
Packing: 50 pcs  
Wt: 0.003 kg/pc

Ord. no.
<b>6173519</b>



**WDK-H 60100**  
Packing: 18 m  
Wt: 1.035 kg/m

Colour	Ord. no.
light grey	<b>6173252</b>

**TW-H 4-60**  
Packing: 40 m  
Wt: 0.225 kg/pc

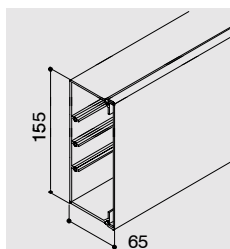
Ord. no.
<b>6173504</b>

**OK-H 100**  
Packing: 50 pcs  
Wt: 0.008 kg/pc

Ord. no.
<b>6173523</b>

**GD-H**  
Packing: 5 pcs  
Wt: 0.075 kg/pc

Ord. no.
<b>6173543</b>



**WDK-H 60150**  
Packing: 50 m  
Wt: 1.390 kg/m

Colour	Ord. no.
light grey	<b>6173260</b>

**TW-H 4-60**  
Packing: 40 m  
Wt: 0.225 kg/pc

Ord. no.
<b>6173504</b>

**OK-H 150**  
Packing: 50 pcs  
Wt: 0.015 kg/pc

Ord. no.
<b>6173527</b>

**GD-H**  
Packing: 5 pcs  
Wt: 0.075 kg/pc

Ord. no.
<b>6173543</b>

During installation care should be taken to use only halogen-free accessories and fixing materials.

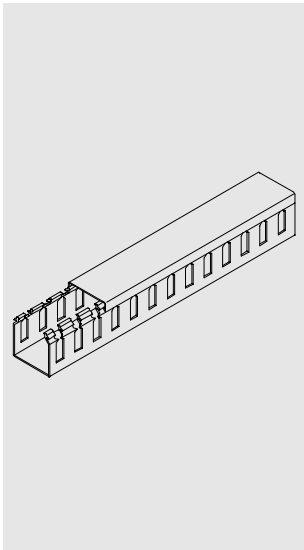
Colours:  
light grey RAL 7035



## Wiring ducts, halogen-free

### Cover and base

Stock length: 2000 mm  
Perforated base

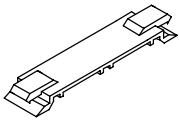


#### VK-H ...

Type	Dim. hwx	Pack. m	Weight kg/m	Ord. no. PPO
VK-H 25025	25x 25	32	0.163	<b>6177010</b>
VK-H 37025	37x 25	20	0.203	<b>6177014</b>
VK-H 37037	37x 37	36	0.266	<b>6177018</b>
VK-H 50025	50x 25	40	0.233	<b>6177026</b>
VK-H 50037	50x 37	28	0.308	<b>6177030</b>
VK-H 50050	50x 50	32	0.334	<b>6177034</b>
VK-H 50075	50x 75	32	0.440	<b>6177038</b>
VK-H 75025	75x 25	32	0.300	<b>6177046</b>
VK-H 75037	75x 37	32	0.382	<b>6177050</b>
VK-H 75050	75x 50	32	0.482	<b>6177054</b>
VK-H 75075	75x 75	16	0.604	<b>6177058</b>
VK-H 75100	75x100	16	0.752	<b>6177062</b>
VK-H 75125	75x125	16	0.945	<b>6177066</b>
VK-H 10037	100x 37	26	0.522	<b>6177078</b>
VK-H 10050	100x 50	16	0.547	<b>6177082</b>
VK-H 10075	100x 75	16	0.745	<b>6177086</b>
VK-H 100100	100x100	8	0.875	<b>6177090</b>

### Accessories for halogen-free wiring ducts

#### Retaining clip



**VK/K-H**  
Packing: 20 pcs  
Wt: 0.5 kg/100

Ord. no. PPO
<b>6177158</b>

### Wiring ducts, halogen-free

The temperature resistance is between -30°C and +85°C. The self-extinguishing material achieves rating V1 according to UL 94.

Under UV stress this material is liable to colour changes, but its physical characteristics remain unchanged.

During installation care should be taken to use only halogen-free accessories and fixing materials.



These products are made in the colour light grey, similar to RAL 7035.

You will find further information on halogen-free materials on page 22.





## Test marks and other marks

-  Metric parts
-  DEMKO, Danmarks Elektriske Materielkontrol, Denmark
-  Sähkö tarkastuskeskus Elinspektionscentralen Electrical Inspectorate, Finland
-  Underwriters Laboratories Inc., USA
-  Underwriters Laboratories Inc., USA
-  Österreichischer Verband für Elektrotechnik, Austria
-  Eidgenössisches Starkstrominspektorat, Switzerland
-  Canadian Standards Association, Canada
-  SEMKO An Inchcape Testing Services Company, Sweden
-  KEMA-KEUR, Netherlands
-  Verband Deutscher Elektrotechniker, Germany
-  ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV, Czech Republic
-  Nemko, Norway
-  FIMKO, Finland
-  CEBEC, Belgium
-  INSTITUTO ITALIANO DEL MARCHIO DI QUALITÀ, Italy
-  Forschungs- und Materialprüfungsanstalt, Germany
-  Shock-tested, Bundesamt für Zivilschutz, Germany
-  Test Mark for Technical Working Media, VDE Prüf- und Zertifizierungsinstitut Offenbach, Germ.
-  MAGYAR ELEKTROTECHNIKAI ELLENŐRZŐ INTÉZET Budapest, Hungary
-  Communautés Européennes, EC Declaration of Conformity to EC Directives
-  Bundesamt für Post und Telekommunikation, Germany
- DiBt      Deutsches Institut für Bautechnik Berlin, Germany
-  Explosion Protection to VDE in protection class "Special Protection", Germany
-  halogen-free  
chlorine  
fluorine  
bromine  
Halogen-free; no chlorine, fluorine or bromine

## Explanations and notes on materials

The stated prices of brass parts\* are based on a DEL quotation for Ms 58 of € 150.-. If these rates vary upwards or downwards by more than € 15.- a 5 percent surcharge or reduction is made for every 15 points.

The prices for materials containing copper\* are also subject to the price fluctuations for non-ferrous metals. The catalogue

prices are based on a DEL quotation for electrolytic copper of € 200.-. If these rates vary upwards or downwards by more than € 15.- a 5 percent surcharge or reduction is made for every 15 points.

The day on which the order is received by OBO is used as a basis when calculating the metal price surcharges/reductions.

Außen- Ø/mm	Pg-Größen	Außen- Ø/mm	Metrische Größen
12	Pg 7	12,5	→ M 12
13			
14			
15	Pg 9	15,2	→ M 16
16			
17			
18	Pg 11	18,6	→ M 20
19			
20			
21	Pg 13,5	20,4	→ M 25
22			
23			
24	Pg 16	22,5	→ M 32
25			
26			
27	Pg 21	28,3	→ M 40
28			
29			
30	Pg 29	37	→ M 50
31			
32			
33	Pg 36	47	→ M 63
34			
35			
36	Pg 42	54	
37			
38			
39	Pg 48	59,3	
40			
41			
42			
43			
44			
45			
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63			

Designation	Outside diameter mm
1/4"	13.5
3/8"	17.2
1/2"	21.3
3/4"	26.9
1"	33.7
1 1/4"	42.4
1 1/2"	48.3
2"	60.3
2 1/2"	76.1
3"	88.9
4"	114.3
5"	139.7
6"	165.1

Outside diameter (OD) of cables and wires			
Cross-section	OD NYM mm	OD NYY mm (approx)	OD NYCY NYCWY mm (approx)
2 x 1.5	8.4- 9.8		12
2 x 2.5	9.6-11		13
2 x 4	11 -12.5		15
2 x 6	12 -13.5		16
2 x 10	15 -17		17.5
2 x 16	17 -20		20
2 x 25	21 -24		-
2 x 35	23.5-27.5		-
3 x 1.5	8.8-10.5	11-14	13
3 x 2.5	10 -11.5	12-15	14
3 x 4	11.5-13	14-17	15
3 x 6	12 -15	15-18	17
3 x 10	16 -18	17-20	18.5
3 x 16	28.5-22	19-22	20.5
3 x 25	22.5-26	-	26.5
3 x 35	25 -29.5	-	28
4 x 1.5	9.5-11	12-16	14
4 x 2.5	11 -12.5	13-17	15
4 x 4	12.5-14.5	15-19	16
4 x 6	14.5-16.5	16-20	18
4 x 10	17 -19.5	18-22	20.5
4 x 16	20.5-23.5	21-25	24
4 x 25	25 -28.5	25-32	29
4 x 35	27.5-32	27-34	31
5 x 1.5	9.9-12	13-16	
5 x 2.5	11.5-13.5	14-17	
5 x 4	14 -16.5	16-19	
5 x 6	15.5-18	18-21	
5 x 10	18.5-21.5	20-23	
5 x 16	22.5-26	22-25	
5 x 25	27.5-31.5	27-33	
5 x 35	30.5-35.5	-	

## Material designations and codes

### Metals

**St\*** – steel, bright

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**FT\*** – steel, hot-dip galvanised

to DIN EN ISO 1461

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**F\*** – steel, hot-dip galvanised

to DIN 267, Part 10

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**FS\*** – steel, strip galvanised

to DIN EN 10147

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**G\*** – steel, electro-galvanised

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**GA\*** – Galfan coated

The better galvanisation

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**St\* (Cu)** – steel, copper-plated

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**VA\*** – stainless steel

VA + V2A = material no. 1.4301; V4A = material no. 1.4571

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**Cu** – copper

**Alu** – aluminium

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**Zn** – zinc/die-cast zinc

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**Ms** – brass

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**TG** – malleable cast iron

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**Levasint** – Levasint coated

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**F-St\*** – spring steel, galvanised

Deltatone 500 (painted)

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**Feran** – Feran strip

Steel, aluminium-plated

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**GC** – steel, electro-galvanised and yellow-chromated

\* OBO codes

#### Note:

Unless otherwise stated, screws, nuts, washers, spring washers, etc are supplied hot-dip galvanised to a thickness of at least 40 µm to DIN 267, Part 10.

## Material designations and codes

### Plastics

#### Duroplast

##### UF – aminoplastic type 131.5

for boxes, cable glands and clips

Temperature-resistance:

permanently up to 65 °C, briefly up to 90 °C  
and to about minus 40 °C.

##### MF – melamine resin type 150

for terminal blocks

Temperature-resistance:

permanently up to 80 °C, briefly up to 110 °C  
and to about minus 40 °C\*.

**Resistant to:**

alcohol, ester, ether, benzene, petrol, mineral oils, greases, weak alkalis, water.

**Conditionally resistant to:**

weak acids.

**Not resistant to:**

strong acids, strong alkalis.  
Little danger of stress cracking.

#### PE – polyethylene

Temperature-resistance:

hard types permanently up to about 90 °C,  
briefly up to about 105 °C

soft types permanently up to about 80 °C,

briefly up to about 100 °C  
and to about minus 40 °C\*.

**Resistant to:**

alkalis and inorganic acids.

**Conditionally resistant to:**

acetone, organic acids, petrol, benzene, diesel oil, most oils.

**Not resistant to:**

chlorine, hydrocarbons, oxidising acids.

**Danger of stress cracking:**

relatively high

Stress cracks can be caused by, among others, acetone, various alcohols, formic acid, ethanol, petrol, benzene, butyric acid, acetic acid, formaldehyde, various oils, petroleum, propanol, nitric acid, hydrochloric acid, sulphuric acid, soap solutions, turpentine, trichloroethylene, citric acid.

#### PP – polypropylene

Temperature-resistance:

permanently up to about 90 °C, briefly up to about 110 °C  
and to about minus 30 °C\*.

Resistance to chemicals generally as for polyethylene.

**Danger of stress cracking:**

low, only with some acids such as chromic acid, hydrofluoric acid and hydrochloric acid, as well as nitrogen oxide.

#### PA – polyamide (nylon)

Temperature-resistance:

permanently up to about 90 °C, briefly up to about 130 °C  
and to about minus 40 °C\*.

**Resistant to:**

petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

**Not resistant to:**

bleach, most acids, chlorine.

**Danger of stress cracking:**

low in air-humid conditions; only with some aqueous salt solutions.

Highly desiccated parts (high temperature and extremely low air humidity) are highly sensitive to fuels and various solvents.

#### PA-GV – glassfibre-reinforced polyamide

Temperature-resistance:

permanently up to about 100-110 °C, briefly up to 160 °C  
and to about minus 40 °C\*.

Resistance to chemicals as above.

#### PBPT – polybutylene terephthalate

Thermoplastic polyester

Temperature-resistance:

permanently up to about 120 °C, briefly up to about 140 °C  
and to about minus 40 °C\*.

**Resistant to:**

petrol, diesel oil, most weak acids, oils and greases.

**Conditionally resistant to:**

acetone, ammonia, benzene.

**Not resistant to:**

strong acids, chlorine, fluorine, bromine vapour, bleach, trichloroethylene, methylene chloride.

**Danger of stress cracking:**

low.

#### PPO – polyphenylene oxide

Temperature-resistance:

–30 °C to +85 °C

**Not resistant to:**

oils, greases, lubricants und fuels

**Flame-resistance:**

to UL 94 V1

Under UV stress the parts may be subject to colour changes.

#### PS – polystyrene

Temperature-resistance:

Because of its relatively high sensitivity to the effects of chemicals, its use is not recommended at temperatures above normal room temperature, about 25 °C.

Resistance to cold: to about minus 40 °C\*.

**Resistant to:**

alkalis, most acids, alcohol.

**Conditionally resistant to:**

oils and greases.

**Not resistant to:**

butyric acid, concentrated nitric acid, concentrated acetic acid, acetone, ether, petrol and benzene, solvents for paints and lacquers, chlorine, diesel fuel.

**Danger of stress cracking:**

relatively high

Stress cracks can be caused by, among others, acetone, ether, petrol, cyclohexane, heptane, methanol, propanol and the softeners of some mixes used in PVC cables.