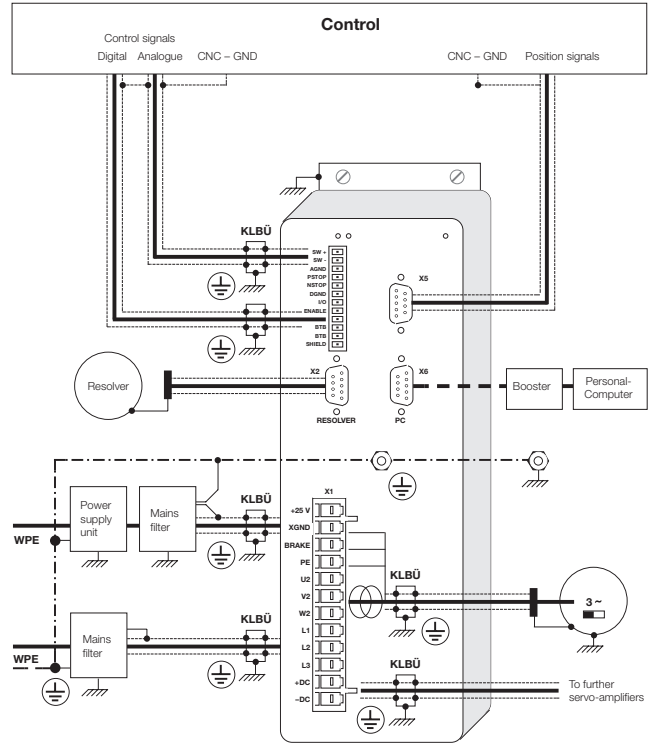


The theoretical concept

Part 1 of the VDE 0133 standard specifies the required equipotential bonding for the electrical components of a machine. The aim is to prevent any undesirable consequences occurring as a result of electrostatic, electromagnetic and net-work bound interference.

The following measures serve this purpose:

- Using filters and time delay devices.
- Dividing earth (PE) into “dirty” and “clean”.
- Neutral grounding using large earth cables for bonding.
- Keeping all bonding leads as short as possible.
- Routing all connections parallel to the bonding surface.
- Separation and shielding of switching devices and interference sensitive equipment, shielded at one end only.
- Shielded lines are used for all motor and all signal connection. These shielded cables for signals are grounded at one end. Drives to Motors should be grounded at both ends.
- The mass current is neutral grounded



Overview of KLBÜ fittings available

For busbars
10 x 3



For direct mounting



For C-profiles



For TS 35
insulating/conducting



Clip-on for
10 x 3 busbar



In detail

Compression spring

- To ensure both simple handling and proper connection with permanent contact pressure as a result of the spring effect

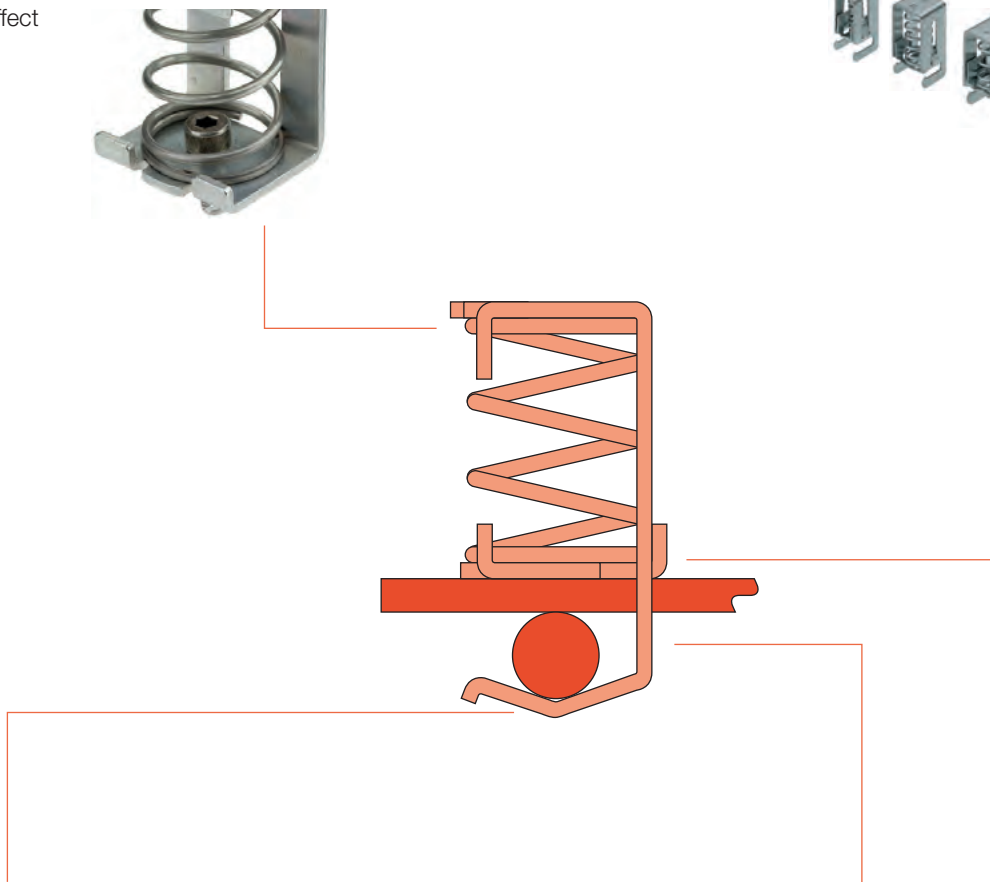


No extra tools necessary

- Simply **swivel onto the busbar by hand** – retrospectively if necessary

Full range

- For conductors from 2 to 37 mm diameter



Reliable contact

- Changes in diameter (flow) of the conductor compensated for by the elastic behaviour of the clamping yoke for flexible adjustment to the cable diameter

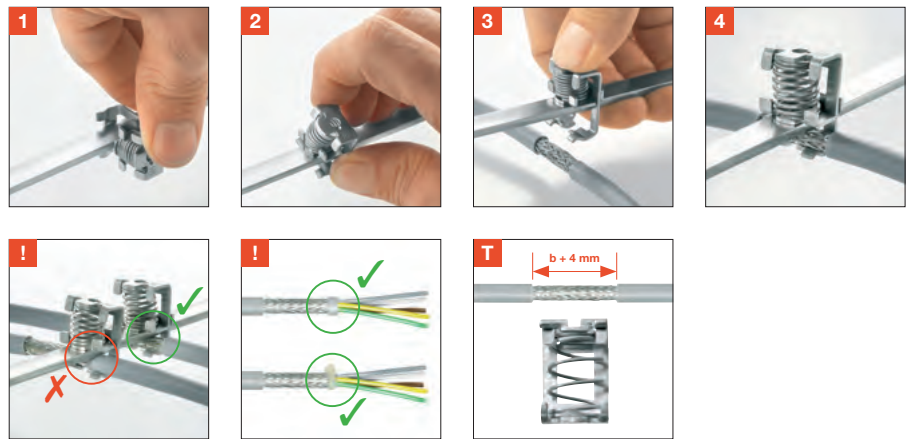
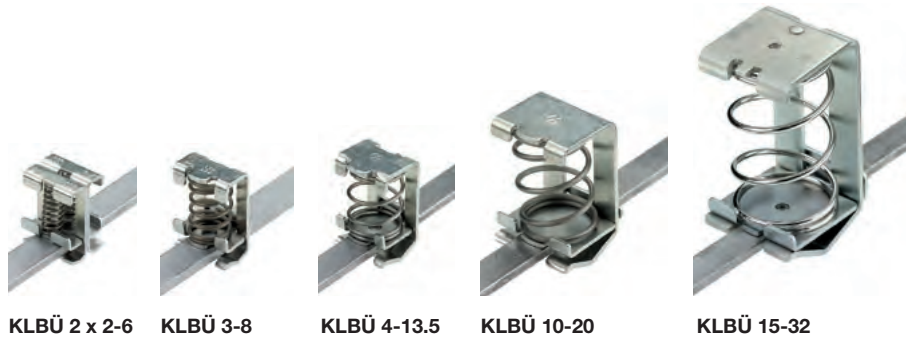
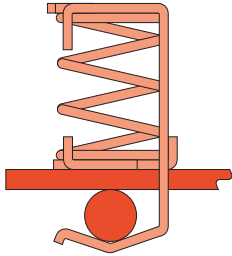
Many options available

- Weidmüller offers a wide range of different fastenings for mounting shield connection terminals

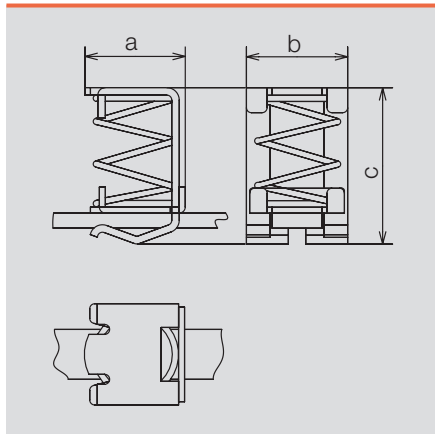
Shield connection terminals KLBÜ for 10 x 3 mm busbars



Clamping yoke

Cable fastened against the busbar from below



KLBÜ



Marking on the product: 
 Marking EN 50019:  Ex e II
 Marking EX-RL 94/9/EC: II 2 G D
 EC type testing certificate: DMT 02 ATEX E 024 U

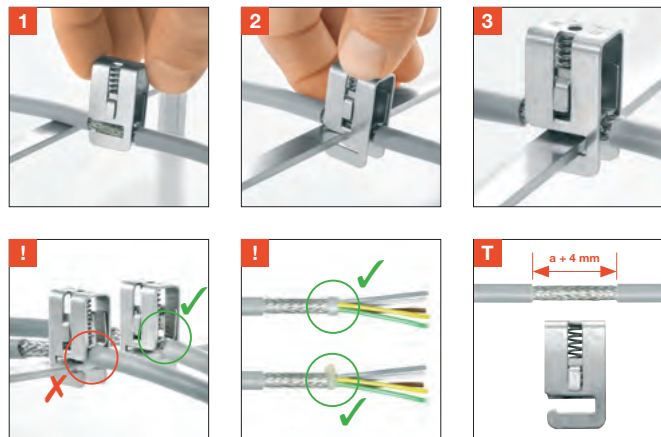
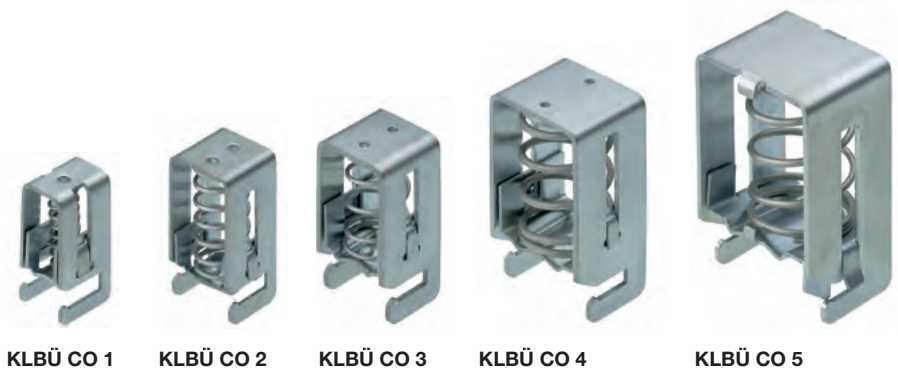
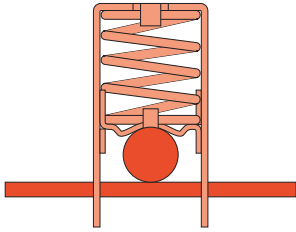
Ordering data

Type	For cable diameter	Dimensions (a x b x c) mm	Qty.	Order No.
KLBÜ 2 x 2-6	2.0 ... 6.0 mm	15.0 x 18.0 x 24.0	10	1675350000
KLBÜ 3-8	3.0 ... 8.0 mm	13.0 x 18.0 x 26.0	10	1600480000
KLBÜ 4 x 13.5	4.0 ... 13.5 mm	20.0 x 20.5 x 31.5	10	1592810000
KLBÜ 10-20	10.0 ... 20.0 mm	25.0 x 26.0 x 40.0	10	1600490000
KLBÜ 15-32	15.0 ... 32.0 mm	36.0 x 32.0 x 63.9	10	1716300000

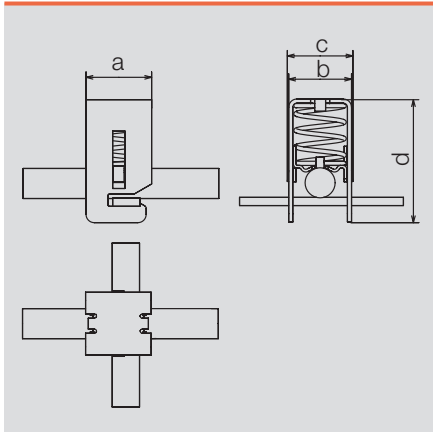
10 x 3 mm busbars	Length	Material	Qty.	Order No.
SSch 10 x 3 x 1000 Cu, Sn, Pb	1000.0 mm	Cu, Sn, Pb	1	0348900000
SSch 10 x 3 x 1000 Fe, Zn, 8B	1000.0 mm	Fe, Zn, 8B	1	1746130000


Clamping yoke

Cable fastened onto the busbar from above



KLBÜ CO



Marking on the product: 

Marking EN 50019:  Ex e II

Marking EX-RL 94/9/EC: II 2 G D

EC type testing certificate: DMT 02 ATEX E 024 U

Ordering data

Type	For cable diameter	Dimensions (a x b x c x d) mm	Qty.	Order No.
KLBÜ CO 1	3.0 ... 10.0 mm	18.0 x 12.0 x 13.2 x 32.0	10	1753311001
KLBÜ CO 2	4.0 ... 15.0 mm	18.0 x 20.0 x 21.1 x 41.6	10	1752131001
KLBÜ CO 3	10.0 ... 20.0 mm	25.0 x 23.0 x 24.0 x 45.0	10	1749151001
KLBÜ CO 4	15.0 ... 28.0 mm	25.0 x 31.0 x 32.0 x 56.0	10	1749161001
KLBÜ CO 5	20.0 ... 37.0 mm	32.0 x 40.0 x 42.7 x 64.5	10	1755081001

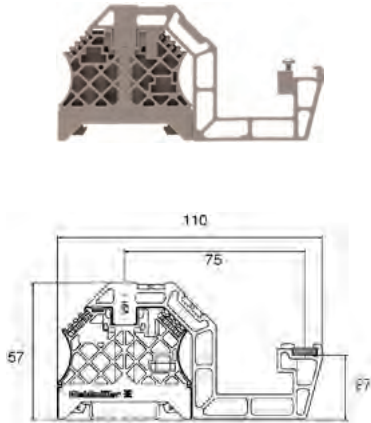
10 x 3 mm busbars	Length	Material	Qty.	Order No.
SSch 10 x 3 x 1000 Cu, Sn, Pb	1000.0 mm	Cu, Sn, Pb	1	0348900000
SSch 10 x 3 x 1000 Fe, Zn, 8B	1000.0 mm	Fe, Zn, 8B	1	1746130000

Shield connection terminals KLBÜ for 10 x 3 mm busbars

Busbar holders

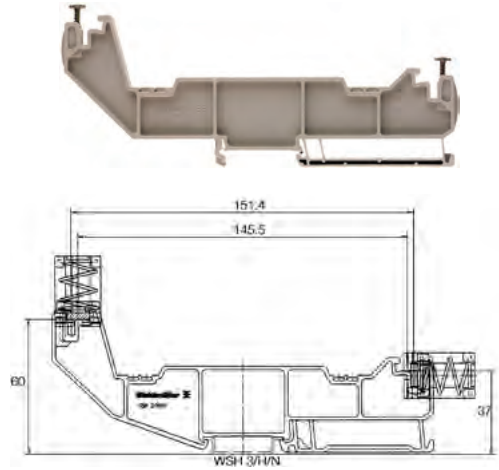
Insulated mounting on TS 35

Type WSH 1



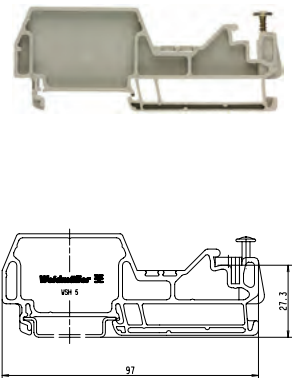
Horizontal mounting only

Type WSH 3/H/N

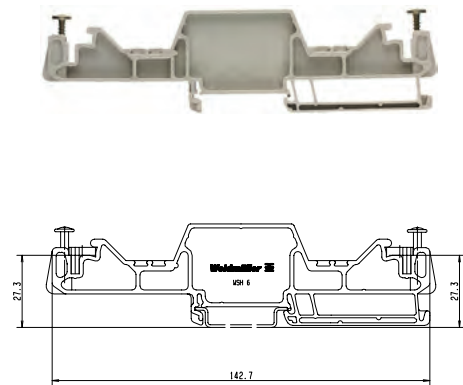


G

Type WSH 5



Type WSH 6



WSH

EC type testing certificate: DMT 02 ATEX E 024 U

Ordering data

Type	Width	Qty.	Order No.
WSH 1	8.0 mm	10	1068700000
WSH 3/H/N	8.0 mm	10	1715970000
WSH 5	8.0 mm	10	1080100000
WSH 6	8.0 mm	10	1080200000

10 x 3 mm busbars	Length	Material	Qty.	Order No.
SSch 10 x 3 x 1000 Cu, Sn, Pb	1000.0 mm	Cu, Sn, Pb	1	0348900000

Busbar holders

Conductive mounting on TS 35

TS 35-Clip
BS 35/WSH 2



Busbar connector
BFEH 1/WSH

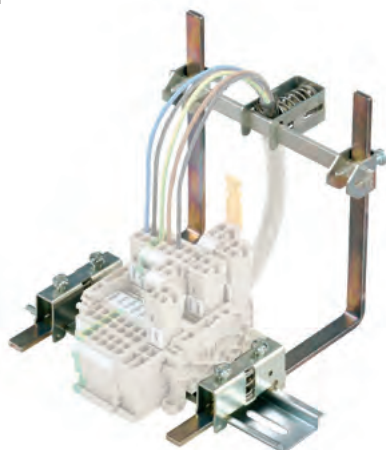


Angled rail
SMSE WSH U1MT



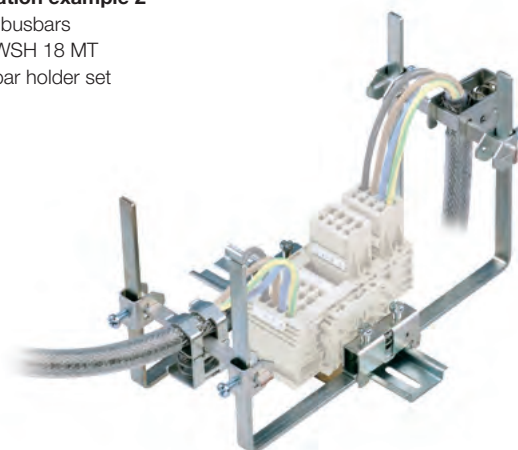
Installation example 1

- One busbar
- 2 x WSH 19 MT busbar holder set



Installation example 2

- Two busbars
- 2 x WSH 18 MT busbar holder set



WSH

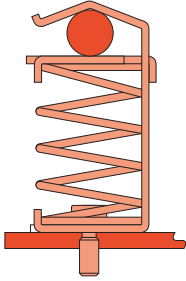
EC type testing certificate: DMT 02 ATEX E 024 U

Ordering data

TS 35-Clip	Dimensions (L x B x H) mm			Qty.	Order No.
BS 35/WSH 2	52.0 x 37.0 x 13.0			10	1760720000
Busbar connector	Dimensions (L x B x H) mm			Qty.	Order No.
BFEH 1/WSH	20.0 x 31.0 x 13.5			10	1082400000
Angled rail	Dimensions (L x B x H) mm			Qty.	Order No.
SMSE WSH U1MT	134.0 x 13.0 x 134.0			10	1083900000
Busbar holder sets	Contents (parts loose in plastic bag)			Qty.	Order No.
	BS 35/WSH 2	BFEH 1/WSH	SMSE WSH U1MT		
WSH 18 MT	1 ea.	2 ea.	2 ea.	10	1083100000
WSH 19 MT	1 ea.	1 ea.	1 ea.	10	1083200000
WSH 20 MT	1 ea.	1 ea.	1 ea. (straight)	10	1752950000
10 x 3 mm busbars	Length	Material	Qty.	Order No.	
SSch 10 x 3 x 1000 Cu, Sn, Pb	1000.0 mm	Cu, Sn, Pb	1	0348900000	
SSch 10 x 3 x 1000 Fe, Zn, 8B	1000.0 mm	Fe, Zn, 8B	1	1746130000	

Shield connection terminals KLBÜ – Mounting directly on metal plate

Clamping yoke



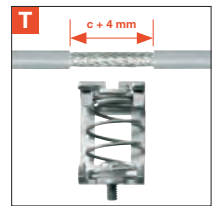
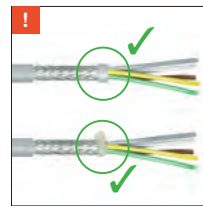
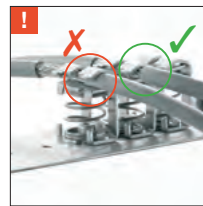
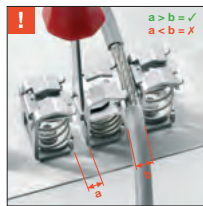
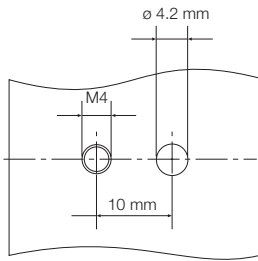
KLBÜ 3-8 SC

KLBÜ 4-13.5 SC

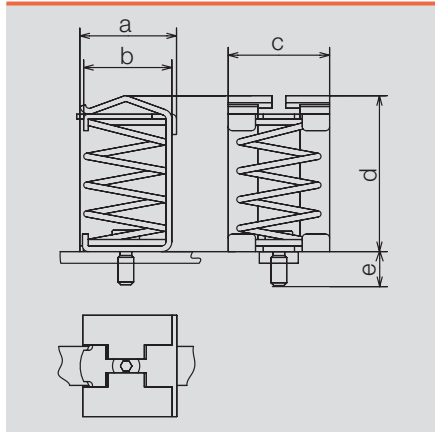
KLBÜ 10-20 SC

KLBÜ 15-32 SC

Drilling template KLBÜ 15-32 SC



KLBÜ SC



Marking on the product:
 Marking EN 50019:
 Marking EX-RL 94/9/EC: II 2 G D
 EC type testing certificate: DMT 02 ATEX E 024 U

Ordering data

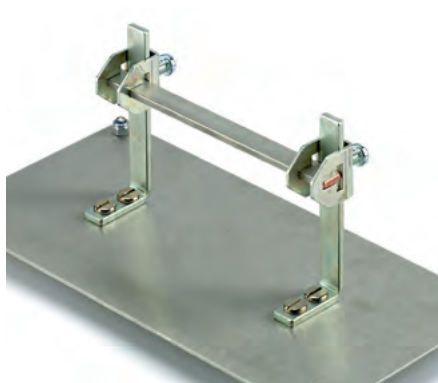
Type	For cable diameter	Thread length	Dimensions (a x b x c) mm	Qty.	Order No.
KLBÜ 3-8 SC	3.0 ... 8.0 mm	5.65 mm	13.5 x 11.5 x 18.0 x 26.0	10	1692261001
KLBÜ 4-13.5 SC	4.0 ... 13.5 mm	5.30 mm	20.0 x 17.8 x 20.3 x 31.4	10	1712311001
KLBÜ 10-20 SC	10.0 ... 20.0 mm	5.30 mm	24.8 x 23.0 x 26.0 x 40.0	10	1712321001
KLBÜ 15-32 SC	15.0 ... 32.0 mm	4.80 mm	36.0 x 33.3 x 32.0 x 64.0	10	1718341001

Operating tool	Qty.	Order No.
BTWZ KLBÜ	1	1742630000

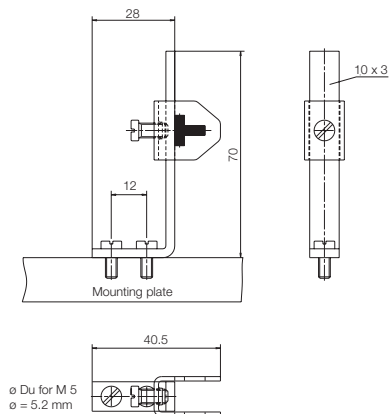


Busbar holder / Spacer

Busbar holder



Set (WSH 4 MT) consisting of:
 - 1 busbar holder
 - 1 busbar connector (BFEH 1/WSH)



Spacer



M6 outer and inner thread
 (15 mm, 20 mm and 30 mm long)



WSH 4 MT / SP

EC type testing certificate: DMT 02 ATEX E 024 U

Ordering data

Busbar holder	Qty.	Order No.
WSH 4 MT	10	1079900000

Type	Length	Qty.	Order No.
SP 15, set of 2	15 mm	1	3896100000
SP 20, set of 2	20 mm	1	3896200000
SP 30, set of 2	30 mm	1	3896300000

Shield connection terminals KLBÜ – Mounting on TS 35

FM 4 foot / Clamping yoke holder

FM 4 foot



The KLBÜ SC clamping yokes (see page G.8) are screwed onto the **FM 4 foot**.



Clamping yoke holder



BS 35 II
(without KLBÜ)



BS 35 II / KLBÜ 3-8

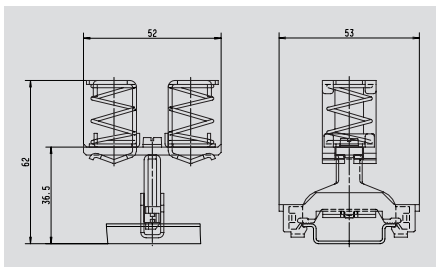


BS 35 II / KLBÜ 3-8 / 2 x 2-6

FM 4 / BS 35 II

Ordering data

	Qty.	Order No.
FM 4 foot	40	0687900000



Clamping yoke holder	For cable diameter	Qty.	Order No.
BS 35 II	without KLBÜ	10	1723800000
BS 35 II / KLBÜ 3-8	3.0 ... 8.0 mm	10	1723810000
BS 35 II / KLBÜ 4-13.5	4.0 ... 13.5 mm	10	1723820000
BS 35 II / KLBÜ 3-8/2 x 2-6	3.0 ... 8.0 mm / 2.0 ... 6.0 mm	10	1749430000
BS 35 II / KLBÜ 2 x 3-8/2 x 2-6	3.0 ... 8.0 mm / 2.0 ... 6.0 mm	10	1768020000

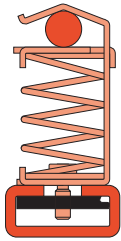
Marking on the product:

Marking EN 50019: Ex e II

Marking EX-RL 94/9/EC: II 2 G D

EC type testing certificate: DMT 02 ATEX E 024 U

Clamping yoke



KLBÜ 3-8 CPF



KLBÜ 4-13.5 CPF

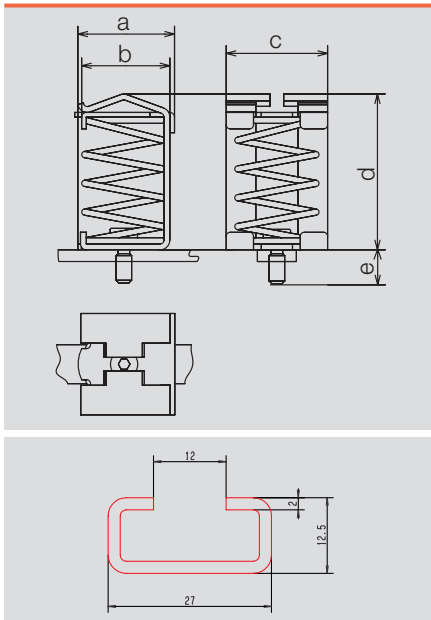


KLBÜ 10-20 CPF



KLBÜ 15-32 CPF



KLBÜ CPF



Ordering data

Type	For cable diameter	Dimensions (a x b x c x d) mm	Qty.	Order No.
KLBÜ 3-8 CPF	3.0 ... 8.0 mm	13.5 x 11.5 x 18.0 x 26.0	10	1752681001
KLBÜ 4-13.5 CPF	4.0 ... 13.5 mm	20.0 x 17.8 x 20.3 x 31.4	10	1752691001
KLBÜ 10-20 CPF	10.0 ... 20.0 mm	24.8 x 23.0 x 26.0 x 40.0	10	1752701001
KLBÜ 15-32 CPF	15.0 ... 32.0 mm	36.0 x 33.3 x 32.0 x 64.0	10	1752711001

C-rail	Qty.	Order No.
TS 27 x 12.5M / ST / F.ZN	10 m	1802690000

Marking on the product: 
 Marking EN 50019:  Ex e II
 Marking EX-RL 94/9/EC: II 2 G D
 EC type testing certificate: DMT 02 ATEX E 024 U