



ecobus combi

5G2.5+2x1.5mm²

Power current and data lines combined in one cable.

Connecting box SBox, No. 49705P/L..

- Direct connection of loads at any point of the cable.
- Flat cable connected by means of pointed screws, without the cable insulation having to be stripped.
- Connection of round cables up to 3x2.5mm² per connector.
- For branching flat cable.
- For rational installations it is recommended to use an electric screwdriver (Please observe the tightening torques!)

Connecting box 5x2.5mm²+2x1.5mm², No. 49725.

- Direct connection of loads at any point of the cable.
- Flat cable connected by means of pointed screws, without the cable insulation having to be stripped.
- For rational installations it is recommended to use an electric screwdriver (Please observe the tightening torques!)

Bus part

- Shield not grounded.
- Connection of round cables up to 2x0.5mm² per connector.
- For branching flat cable.

Power current part

- Connection of round cables up to 5x2.5mm² per connector.
- For branching flat cable.
- For rational installations it is recommended to use an electric screwdriver (Please observe the tightening torques!)

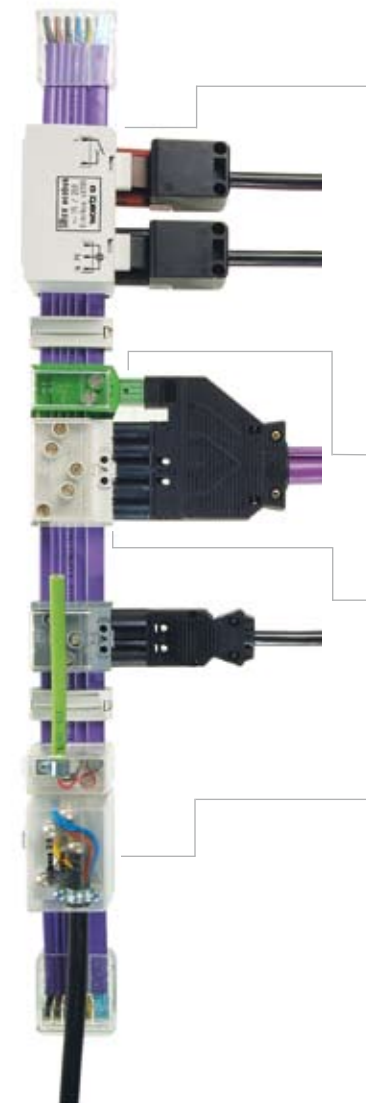
Connecting box 5x2.5mm²+2x1.5mm², No. 49700.

- Direct connection of loads at any point of the cable.
- Flat cable connected by means of pointed screws, without the cable insulation having to be stripped.
- Connection of one round cable up to 5x2.5mm² and 2x1.5mm² by means of screws.
- For supply and branching of flat cable.
- For rational installations it is recommended to use an electric screwdriver (Please observe the tightening torques!)

• **Where are these flat cables used?**

- in office buildings
- in hospitals, clinics and residential facilities
- in industrial buildings
- in hotels

Flat cable enables installations to be completed easily with further connections.



ecobus combi 5G2.5mm²+2x1.5mm²

Flat cable 5G2.5mm²+2x1.5mm²

5.2.36

- 2 cables within one sheath
- 3 different phases (L1, L2 and L3) and one bus in the same cable
- quick installation
- various and flexible installations
- asymmetric flat cable to avoid reverse polarity



Flat cable of PVC
3L+N+PE+2Bus



Flat cable halogen-free
3L+N+PE+2Bus

No.

	49945	113 388 083	49946	113 388 007
with black strips	49945/SM	113 388 084	49946/SM	113 388 004

Technical data

	PVC	Polyethylene Compound
Sheath	PVC	Polyethylene Compound
Colour of the sheath	violet ¹	violet ²
Dimensions	32x6mm	32x6mm
Weight	350g/m	340g/m
Fire load	1.18kWh/m	0.99kWh/m
No. of leads x cross-section	5x2.5mm ² +2x1.5mm ²	5x2.5mm ² +2x1.5mm ²
Power current		
Copper conductors	tinned, highly flexible	tinned, highly flexible
Insulation of the leads	PVC	Flame retardant, vulcanized and halogen-free Polyethylene Compound
Colour of the leads	grey, black, brown, blue, green/yellow	grey, black, brown, blue, green/yellow
Cross-section	2.5mm ²	2.5mm ²
Test voltage	4kV, 50Hz	4kV, 50Hz
Rated voltage	0.6/1kV	0.6/1kV
DC-resistance	7.98Ω/km	7.98Ω/km
Bus part		
Copper conductors	tinned	tinned
Insulation of the leads	Polyethylene	Polyethylene
Colour of the leads	neutral	neutral
Shield	double shield of aluminium	double shield of aluminium
Cross-section	1.5mm ²	1.5mm ²
Rated voltage	50V	50V
Max. rated current	3A	3A
DC-resistance	13.7Ω/km	13.7Ω/km
Capacitance	70pF/m	70pF/m
Attenuation at 1Hz	nom. 1.2dB/100m	nom. 1.2dB/100m
Charact. impedance at 1MHz	nom. 75Ω	nom. 75Ω
Packing unit	500m/1000m	500m/1000m

¹ other colours on request (e.g. red, white, black)

² other colours on request (e.g. red, white, black)

ecobus combi 5G2.5mm²+2x1.5mm²

Accessories	Flat cable of PVC 3L+N+PE+2Bus		Flat cable halogen-free 3L+N+PE+2Bus	
		see page		see page
Connecting box for power current and bus	49700	5.2.38	49700	5.2.38
Connecting box for power current	49701	5.2.39	49701	5.2.39
Connecting box for bus	49702	5.2.39	49702	5.2.39
Connecting box for power current 3-pole	49713/L1, 49713L2, 49713L3	5.2.40	49713/L1, 49713L2, 49713L3	5.2.40
Connecting box for power current 5-pole	49715	5.2.40	49715	5.2.40
Branching box for bus, code KNX	49710	5.2.41	49710	5.2.41
Branching box for bus, code 3	49711	5.2.41	49711	5.2.41
Branching box for bus, code KNX	49720/C	5.2.42	49720/C	5.2.42
Branching box for bus, code 3	49721/C	5.2.42	49721/C	5.2.42
Branching box for bus, code Woertz	49727/C	5.2.42	49727/C	5.2.42
Branching box for power current and bus, code KNX	49723/L1, 49723/L2, 49723/L3	5.2.43	49723/L1, 49723/L2, 49723/L3	5.2.43
Branching box for power current and bus, code 1	49724/L1, 49724/L2, 49724/L3	5.2.43	49724/L1, 49724/L2, 49724/L3	5.2.43
Branching box, code 1	49725	5.2.44	49725	5.2.44
Branching box, code 1	49726	5.2.44	49726	5.2.44
Connecting box, flat execution	49703	5.2.45	49703	5.2.45
Branching box SBox I/O switch	49705/L1, 49705/L2, 49705/L3	5.2.46	49705/L1, 49705/L2, 49705/L3	5.2.46
Branching box SBox with impulse switch	49706/L1, 49706/L2, 49706/L3	5.2.46	49706/L1, 49706/L2, 49706/L3	5.2.46
Branching box SBox with changeover contact	49707/L1, 49707/L2, 49707/L3	5.2.47	49707/L1, 49707/L2, 49707/L3	5.2.47
Branching box SBox with series connection	49708/L1, 49708/L2, 49708/L3	5.2.47	49708/L1, 49708/L2, 49708/L3	5.2.47
Cable end piece	49730	5.2.48	49730	5.2.48
Fastening clamp for screw fixing	49731	5.2.48	49731	5.2.48
Cable stripping tool	49736	5.2.48	49736	5.2.48
Shears	49930	5.2.48	49930	5.2.48
Insulating tape	49960	5.2.48	49960	5.2.48
Fastening clamp for screwing on	49733	5.2.48	49733	5.2.48
Fastening clamp for sticking on	49733A	5.2.48	49733A	5.2.48

ecobus combi 5G2.5mm²+2x1.5mm²

Connecting box with screw-type connection for power current and bus to flat cables No. 49945 and 49946

- numerous various applications
- reverse polarity protection
- longitudinal connection



Connecting box 5x2.5mm²+2x1.5mm² for supply and branching, for power current and bus

No.

49700

150 775 137

Technical data

Weight	86g
Dimensions LxWxH	76x41x39mm
Fire load	0.47kWh
Plastic parts	light grey / transparent, halogen-free
Metal parts	corrosion-resistant
No. of leads x cross-section	5x2.5mm ² +2x1.5mm ²
Connecting capacity	Ø 3.75mm + Ø 3.2mm
Packing unit	50 pce.
Degree of protection	IP20
Power current part	
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Clamping screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Cross-section	2.5mm ²
Rated voltage	690V
Max. rated current	16A
Bus part	
Pointed screws	tightening torque 1.0Nm, screwdriver No. 3
Clamping screws	tightening torque 0.7Nm, screwdriver No. 3
Cross-section	1.5mm ²
Rated voltage	50V
Max. rated current	3A

ecobus combi 5G2.5mm²+2x1.5mm²

Connecting box with screw-type connection for power current or bus to flat cables No. 49945 and 49946



Connecting box 5x2.5mm² for supply and branching,
for power current

Connecting box 2x1.5mm² for supply and branching,
for bus

No.

49701

150 775 037

49702

150 732 037

Technical data

Weight	55g	23g
Dimensions LxWxH	58x41x39mm	21x41x39mm
Fire load	0.33kWh	0.14kWh
Plastic parts	light grey / transparent, halogen-free	light grey / transparent, halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
No. of leads x cross-section	5x2.5mm ²	2x1.5mm ²
Connecting capacity	Ø 3.75mm	Ø 3.2mm
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20
Power current part		
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	
Clamping screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	
Cross-section	2.5mm ²	
Rated voltage	690V	
Max. rated current	16A	
Bus part		
Pointed screws		tightening torque 1.0Nm, screwdriver No. 3
Clamping screws		tightening torque 0.7Nm, screwdriver No. 3
Cross-section		1.5mm ²
Rated voltage		50V
Max. rated current		3A

ecobus combi 5G2.5mm²+2x1.5mm²

Branching boxes with socket 3- or 5-pole to flat cables 49945 and 49946

5.2.40

- pluggable power branching
- reverse polarity protection
- lateral connection



Branching box with socket 3-pole



Branching box with socket 5-pole

No.

No.		49715	150 700 337
Connection L1	49713/L1	150 700 137	
Connection L2	49713/L2	150 700 237	
Connection L3	49713/L3	150 700 117	

Technical data

Weight	40g	65g
Dimensions LxWxH	34.5x57.5x25.7mm	34.5x57.5x25.7mm
Fire load	0.18kWh	0.27kWh
Colour of box, connection L1	light grey	
Colour of box, connection L2	dark grey	
Colour of box, connection L3	black	
Socket	type GST18i3, code 1	type GST18i5, code 1
Plastic parts	coloured / transparent, halogen-free	coloured / transparent, halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Rated voltage	250V	250V/400V
Max. rated current	16A	16A
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20

Accessories

see page

see page

Connector	49743M	5.2.52	49745M	5.2.54
Socket	49743F	5.2.52	49745F	5.2.54
Pre-wired connectors	49743/...M, ..M25	5.2.52	49745/...M, ..M25	5.2.54
Extensions	49743/...MF, ..MF25	5.2.53	49745/...MF, ..MF25	5.2.55
Locking	49750	5.2.53	49750	5.2.55

ecobus combi 5G2.5mm²+2x1.5mm²

Branching box with socket 2-pole to flat cables No. 49945 and 49946, lateral connection

- pluggable bus branching
- coded sockets corresponding to different bus systems
- reverse polarity protection
- lateral connection
- third pole cannot be connected



Branching box with socket 2-pole for KNX



Branching box with socket 3-pole for bus

No.

49710

150 701 187

49711

150 702 237

Technical data

Weight	18g	18g
Dimensions LxWxH	27x57.5x25.7mm	27x57.5x25.7mm
Fire load	0.12kWh	0.12kWh
Socket	type BST14i2, code KNX	type BST14i3, code 3
Plastic parts	green / transparent, halogen-free	black / transparent, halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
Pointed screws	tightening torque 1.0Nm, screwdriver No. 3	tightening torque 1.0Nm, screwdriver No. 3
Rated voltage	50V	50V
Max. rated current	3A	3A
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20

Accessories

see page

see page

Connector	49740M	5.2.50	49741M	5.2.50
Socket	49740F	5.2.50	49741F	5.2.50
Snap-in	49420M	5.2.50	49421M	5.2.51
	49420F		49421F	
Pre-wired connectors	49740/...M	5.2.50	49741/...M	5.2.51

ecobus combi 5G2.5mm²+2x1.5mm²

Branching box with socket 2-pole to flat cables No. 49945 and 49946

5.2.42

- pluggable bus branching
- coded sockets corresponding to different bus systems
- reverse polarity protection
- longitudinal connection
- third pole cannot be connected



Branching box with socket 2-pole, for KNX



Branching box with socket 3-pole, for bus



Branching box with socket 3-pole, for bus

No.

49720/C

49721/C

49727/C

Technical data

Weight	19g	19g	19g
Dimensions LxWxH	44x39.5x28mm	44x39.5x28mm	44x39.5x28mm
Fire load	0.12kWh	0.12kWh	0.12kWh
Socket	type BST14i2, code KNX	type BST14i3, code 3	code Woertz
Plastic parts	black / green / transparent, halogen-free	black / transparent, halogen-free	black / grey / transparent, halogen-free
Metal parts	corrosion-resistant	corrosion-resistant	corrosion-resistant
Pointed screws	tightening torque 1.0Nm, screwdriver No. 3	tightening torque 1.0Nm, screwdriver No. 3	tightening torque 1.0Nm, screwdriver No. 3
Rated voltage	50V	50V	50V
Max. rated current	3A	3A	3A
Packing unit	50 pce.	50 pce.	50 pce.
Degree of protection	IP20	IP20	IP20

Accessories

see page

see page

see page

Connector	49740M	5.2.50	49741M	5.2.50	49747M	5.2.51
Socket	49740F	5.2.50	49741F	5.2.50	49747F	5.2.51
Snap-in	49420M 49420F	5.2.50	-	-	49421M 49421F	5.2.51
Pre-wired connectors	49740/...M	5.2.50	49741/...M	5.2.51	49747/...M	5.2.51

ecobus combi 5G2.5mm²+2x1.5mm²

Branching box with socket 2- and 3-pole to flat cables No. 49945 and 49946

- pluggable branching for power current and bus
- coded sockets corresponding to different bus systems
- reverse polarity protection
- lateral connection
- third bus pole cannot be connected



Branching box with sockets 2- and 3-pole



Branching box with sockets 2- and 3-pole

No.

Connection L1	49723/L1	150 701 137	49724/L1	150 703 037
Connection L2	49723/L2	150 701 237	49724/L2	150 703 137
Connection L3	49723/L3	150 701 117	49724/L3	150 703 017

Technical data

Weight	57.5g	57.5g
Dimensions LxWxH	59.5x57.5x25.7mm	59.5x57.5x25.7mm
Fire load	0.29kWh	0.29kWh
Socket	type EST2i3, code KNX	type EST3i3, code 1
Plastic parts	coloured / transparent, halogen-free	coloured / transparent, halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20
Power current part		
Colour of box, connection L1	light grey	light grey
Colour of box, connection L2	dark grey	dark grey
Colour of box, connection L3	black	black
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Rated voltage	250V	250V
Max. rated current	16A	16A
Bus part		
Pointed screws	tightening torque 1.0Nm, screwdriver No. 3	tightening torque 1.0Nm, screwdriver No. 3
Rated voltage	50V	50V
Max. rated current	3A	3A

Accessories

see page

see page

Connector	49753M	5.2.56	49754M	5.2.56
Snap-in	49420M 49420F	5.2.50	49421M 49421F	5.2.51
Pre-wired connectors	49753/...M	5.2.56	49754/...M	5.2.56
Locking	49750	5.2.56	49750	5.2.56

ecobus combi 5G2.5mm²+2x1.5mm²

Branching box with sockets 2/3-pole and 5-pole to flat cables No. 49945 and 49946

5.2.44

- pluggable branching for power current and bus
- coded sockets corresponding to different bus systems
- reverse polarity protection
- lateral connection
- third bus pole cannot be connected



Branching box with socket 2 and 5-pole



Branching box with socket 3 and 5-pole

No.

49725

150 705 137

49726

150 705 237

Technical data

Weight	82g	82g
Dimensions LxWxH	79x57.5x25.7mm	79x57.5x25.7mm
Fire load	0.40kWh	0.40kWh
Socket	type EST2i5, code 1	type EST3i5, code 1
Plastic parts	light grey / transparent, halogen-free	light grey / transparent, halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20
Power current part		
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Rated voltage	250V/400V	250V/400V
Max. rated current	16A	16A
Bus part		
Pointed screws	tightening torque 1.0Nm, screwdriver No. 3	tightening torque 1.0Nm, screwdriver No. 3
Rated voltage	50V	50V
Max. rated current	3A	3A

Accessories

see page

see page

Connector	49755M	5.2.57	49756M	5.2.57
Snap-in	49420M 49420F	5.2.50	49421M 49421F	5.2.51
Pre-wired connectors	49755/...M	5.2.57	49756/..M	5.2.57
Locking	49750	5.2.57	49750	5.2.57

ecobus combi 5G2.5mm²+2x1.5mm²

Connecting box, flat execution to flat cables No. 49945 and 49946

- low profile
- reverse polarity protection
- longitudinal connection



Connecting box, flat execution
3P+N+PE

5.2.45

No.

49703

150 701 007

Technical data

Weight	72g
Dimensions LxWxH	96x60x23mm
Fire load	0.38kWh
Plastic parts	light grey / transparent, halogen-free
Metal parts	corrosion-resistant
Connecting capacity	Ø 6-13mm
Nominal cross-section	for flexible round cable of PVC up to 5x1.5mm ² with end sleeves for strands or rigid round cables up to 5x2.5mm ²
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Spring clamp terminals	2 connections per pole
Rated voltage	690V
Max. rated current	16A
Packing unit	50 pce.
Degree of protection	IP20

ecobus combi 5G2.5mm²+2x1.5mm²

Connecting box SBox for lighting installations with I/O switch or impulse switch

5.2.46

- short mounting procedures
- pluggable branching
- wiring diagram on the product data sheet



Branching box with I/O switch



Branching box with impulse switch

No.

No.	Product Code	Part No.	Product Code	Part No.
Connection L1	49705/L1	150 711 307	49706/L1	150 712 307
Connection L2	49705/L2	150 711 327	49706/L2	150 712 327
Connection L3	49705/L3	150 711 347	49706/L3	150 712 347

Technical data

Technical data	Branching box with I/O switch	Branching box with impulse switch
Weight	94g	110g
Dimensions LxWxH	74x67x37mm	74x67x37mm
Fire load	0.51kWh	0.51kWh
Colour of box, connection L1	light grey	light grey
Colour of box, connection L2	dark grey	dark grey
Colour of box, connection L3	black	black
Socket to switches	type GST 18i3, code 4 (brown)	type GST 18i3, code 4 (brown)
Socket to lamps	type GST 18i3, code 1	type GST 18i3, code 1
Plastic parts	halogen-free	halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Rated voltage	250V	250V
Max. rated current	16A	16A
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20

Accessories

Accessories	Product Code	Page	Product Code	Page
Connector to lamps	49743M	5.2.52	49743M	5.2.52
Pre-wired connectors to lamps	49743/..M 49743/..M25	5.2.52	49743/..M 49743/..M25	5.2.52
Extensions	49743/..MF, ..MF25	5.2.53	49743/..MF, ..MF25	5.2.53
Connector to switches	49742M	5.2.53	49742M	5.2.53
Pre-wired connectors to switches	49742/..M, ..M25	5.2.53	49742/..M, ..M25	5.2.53
Baseplate with fixing brackets	49738	5.2.27	49738	5.2.27

ecobus combi 5G2.5mm²+2x1.5mm²

Connecting box SBox for lighting installations with changeover contact or series connection



Branching box with changeover contact



Branching box with series connection

No.

No.	49707/L1	150 713 307	49708/L1	150 714 307
Connection L1	49707/L1	150 713 307	49708/L1	150 714 307
Connection L2	49707/L2	150 713 327	49708/L2	150 714 327
Connection L3	49707/L3	150 713 347	49708/L3	150 714 347

Technical data

Weight	120g	120g
Dimensions LxWxH	74x88x37mm	74x88x37mm
Fire load	0.54kWh	0.54kWh
Colour of box, connection L1	light grey	light grey
Colour of box, connection L2	dark grey	dark grey
Colour of box, connection L3	black	black
Socket to switches	type GST 18i3, code 4 (brown)	type GST 18i3, code 4 (brown)
Socket to lamps	type GST 18i3, code 1	type GST 18i3, code 1
Plastic parts	halogen-free	halogen-free
Metal parts	corrosion-resistant	corrosion-resistant
Pointed screws	tightening torque 0.7Nm, Phillips-head screwdriver No. 1	tightening torque 0.7Nm, Phillips-head screwdriver No. 1
Rated voltage	250V	250V
Max. rated current	16A	16A
Packing unit	50 pce.	50 pce.
Degree of protection	IP20	IP20

Accessories

		see page		see page
Connector to lamps	49743M	5.2.52	49743M	5.2.52
Pre-wired connectors to lamps	49743/..M 49743/..M25	5.2.52	49743/..M 49743/..M25	5.2.52
Extensions	49743/..MF, ..MF25	5.2.53	49743/..MF, ..MF25	5.2.53
Connector to switches	49742M	5.2.53	49742M	5.2.53
Pre-wired connectors to switches	49742/..M, ..M25	5.2.53	49742/..M, ..M25	5.2.53
Baseplate with fixing brackets	49738	5.2.27	49738	5.2.27

Accessories

Cable end piece

5.2.48



49730
120 900 117

Of polycarbonate, halogen-free, transparent
Dimensions: 41x40x9 mm
Weight: 10g
Fire load: 0.08kWh
Packing unit: 10 pce.

Note:

Before mounting the cable, first strip it at both ends for a distance of 19mm so that the specified creepage distance will be observed.

Clamp for screw fixing



49731
120 008 107

Of polyamide 66, halogen-free, grey
Dimensions: 52x10x10 mm
Weight: 2g
Fire load: 0.02kWh
Packing unit: 100 pce.

Cable stripping tool



49736
983 050 427

This tool offers the advantage of stripping neatly and easily the cable without damaging the insulation of the conductors.
Packing unit: 1 pce.

Note:

The cable has to be stripped at both ends for a distance of 19mm so that the conductors can be inserted properly in the end pieces.

Shears



49930
983 045 007

For cutting neatly and easily every type of flat cables (max. width 32mm).
With sliding anvil. Teflon coated blades.
Packing unit: 1 pce.

Insulating tape



49960
171 013 004

To reinsulate correctly the holes due to pointed screws or cutting teeth when removing or displacing connections.
Insulating tape trademark "Scotch 2210", synthetic caoutchouc-based product, PVC coated black.
Weatherproof, self-fusing.
Dimensions: 102x100x2.3mm
Dielectric strength: max. 23kV/mm
Temperature: max. +70°C
Packing unit: 10 pce.

Cable fastening clamp



49733
150 900 117

49733A
150 900 107

No. 49733 for screwing on
No. 49733A for sticking on
Of polyamide 66, halogen-free, grey
Dimensions: 40x15x15mm
Weight: 3.7g
Fire load: 0.03kWh
Packing unit: 100 pce.