








4/2 way Solenoid Valve for pneumatics

- Compact design
- Push-over solenoid coil
- Exhaust air can be regulated
- Tube, threaded and sub-base connections
- Servo-diaphragm seat discs



Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 1087 Timer	▶
	Type 2518 Cable Plug DIN EN 175301 - 803 - Form A	▶
	Type 2000 Pneumatically operated 2/2 way angle seat valve CLASSIC	▶
	Type 2511 Cable Plug Form A	▶
	Type 2513 Cable plug acc. to DIN EN 175301 - 803 Form A	▶

Type description

The Type 5420 is a pilot-controlled 4-way seat valve with servo-diaphragms. A minimum differential pressure of 2.5 bar is needed for switch-over. The valve can be mounted on two channel manifolds with a common pressure supply.

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 5
Materials	
Body	Polyamide
Seal	NBR
Coil	Polyamide, Epoxy
Orifice	DN3
Electrical data	
Operating voltage	Standard version: 24 V DC 24/230 V/50...60 Hz ATEX version: 24/110/230 V UC
Power consumption	V DC version: 2 W V AC version: 11 VA (inrush), 6 VA (hold)
Voltage tolerance	+ 10 %
Performance data	
Air pressure quality	ISO 8573 - 1:2010, class 7.4.4
Flow rate (Q_{Nn} -value air)	200 l/min (Measured at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference)
Duty cycle	100 % continuously rated
Response time	Opening: 30 ms (pressure rise 0...90 %) Closing: 20 ms (pressure drop 100...10 %)
Medium data	
Medium	Neutral medium, e.g. lubricated or unlubricated compressed air
Medium temperature	- 10 °C... + 60 °C
Medium pressure	2.5...10 bar (Overpressure to the atmospheric pressure)
Approvals and certificates	
Protection class	IP65 with cable plug
Type of protection (ATEX and IECEx)	
Coil with cable	EPS 18 ATEX 1232 X / IECEx EPS 18.0110X II 2G Ex mb IIC T5 Gb II 2D Ex mb IIIC T95 °C Db
Coil with junction box	EPS 18 ATEX 1232 X / IECEx EPS 18.0110X II 2G Ex eb mb IIC T5 Gb II 2D Ex mb tb IIIC T95 °C Db
Product connections	
Port connection	G 1/8, tube SL 6/4, sub-base
Cable plug Type 2518	Cable plug Type 2518 acc. to DIN EN 175301 – 803, Form A (previously DIN 43650, Form A) Detailed information can be found in chapter "Cable plug Type 2518, form A acc. to DIN EN 175301 - 803" on page 9
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature (max.)	55 °C

1.) To prevent freezing of the expanded compressed air, the pressure dew point must be at least 10 K lower than the temperature of the medium.

Orifice	Q_{Nn} value	Port connection		Coil power	Pressure range	Response times ^{1.)}		Weight
		1 and 3	2 and 4			Opening	Closing	
[mm]	[l/min]			[W]	[bar]	[ms]	[ms]	[kg]
3	200	G 1/8	G 1/8	3	2.5...10	30	20	ca. 0.4
3	200	SL 6/4	SL 6/4	3	2.5...10	30	20	ca. 0.4
3	200	sub-base ^{1.)}	G 1/8	3	2.5...10	30	20	ca. 0.4
3	200	sub-base ^{2.)}	SL 6/4	3	2.5...10	30	20	ca. 0.4

1.) For full opening a differential pressure of 2.5 bar is required.


2.) Sub-base for mounting on manifolds.

2. Circuit functions

Circuit functions	Description
	<p>Type: G, solenoid valve 4/2 way Servo-controlled Normally open</p>

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

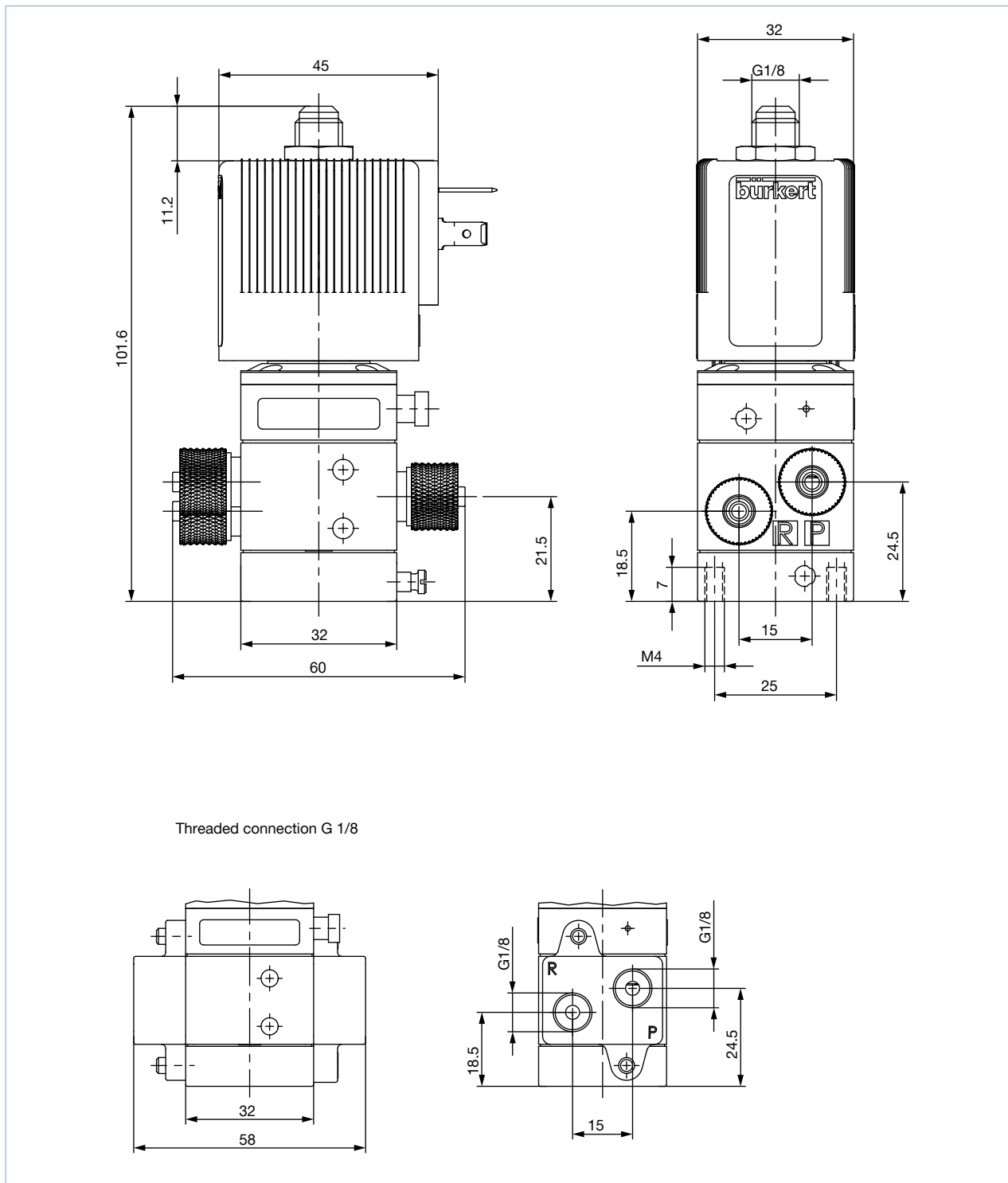
[Start Chemical Resistance Check](#)

4. Dimensions

4.1. Dimension for standard version

Note:

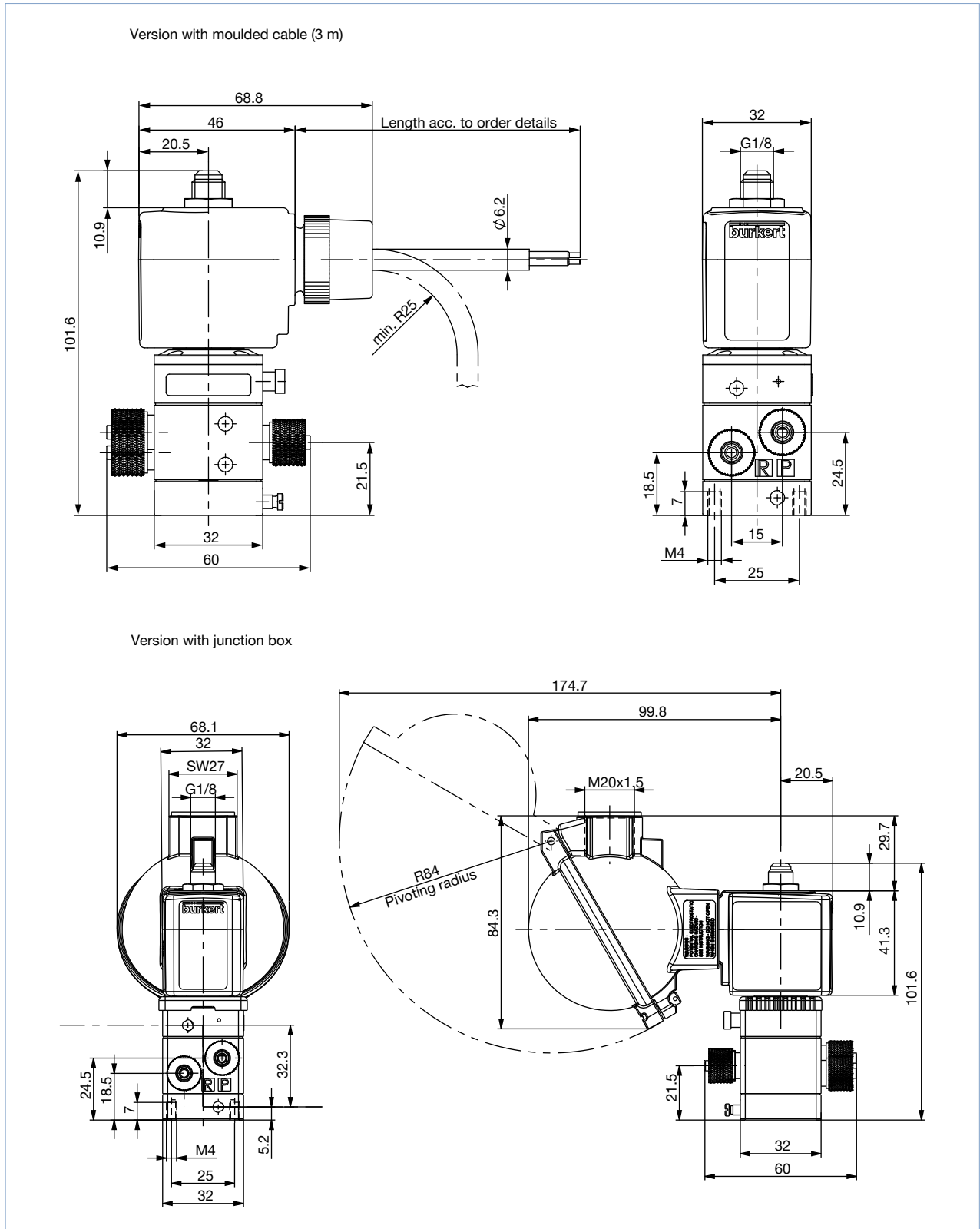
- Dimensions in mm
- Tube connection for semi-soft plastic tubes (outer-Ø 6 mm, inner-Ø 4 mm)
- For battery mounting, the union nuts on the Ports 1 and 3 are replaced by O-rings (10×2).



4.2. Dimension for ATEX/IECEx version

Note:

Dimensions in mm




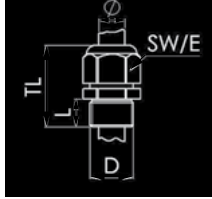

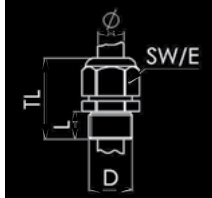
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5. Product accessories

5.1. Cable glands for ATEX/IECEx terminal box

Note:


- A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at a surcharge, see “Cable glands for ATEX/IECEx terminal box” on page 10.
- This special tool is not supplied with the valve (see “Cable glands for ATEX/IECEx terminal box” on page 10)

Description	Ex approvals		Dimensions										
	Certification	Identification											
Ex cable gland, Brass, nickelplated, 6...13 mm 	PTB 04 ATEX 1112 X, IECEx PTB 13.0027X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table border="1"> <tr><td>TL</td><td>29...37 mm</td></tr> <tr><td>L</td><td>6 mm</td></tr> <tr><td>D</td><td>20 mm</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>27 mm</td></tr> </table>	TL	29...37 mm	L	6 mm	D	20 mm	SW	24 mm	E	27 mm
TL	29...37 mm												
L	6 mm												
D	20 mm												
SW	24 mm												
E	27 mm												
Ex cable gland, Polyamide, 7...13 mm 	PTB 13 ATEX 1015 X, IECEx PTB 13.0034X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table border="1"> <tr><td>TL</td><td>36...45 mm</td></tr> <tr><td>L</td><td>10 mm</td></tr> <tr><td>D</td><td>20 mm</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>28 mm</td></tr> </table>	TL	36...45 mm	L	10 mm	D	20 mm	SW	24 mm	E	28 mm
TL	36...45 mm												
L	10 mm												
D	20 mm												
SW	24 mm												
E	28 mm												

5.2. Special tool to turn the junction box


Note:

- This special tool is not supplied with the valve (see “Cable glands for ATEX/IECEx terminal box” on page 10)
- This special tool can only be used with ATEX AC10 coils.

Set SC02-AC10	Set includes:
	<ul style="list-style-type: none"> • Special wrench • Service manual

6. Ordering information

6.1. Bürkert eShop – Easy ordering and quick delivery




Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

6.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

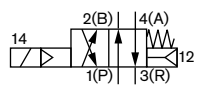
[Try out our product filter](#)

6.3. Ordering chart standard version

Note:

- Please note that the cable plug must be ordered separately, see [“Cable plug Type 2518, form A acc. to DIN EN 175301 - 803” on page 9](#) or separate data sheet for **Type 2518** ▶.
- Corrosion-resistant body in polyamide, with coil AC10 (32 mm) , 2 W, seal material NBR
- A pressure difference of 2.5 bar is necessary for switch-over.
- The pressure range of the following table is 2.5...10 bar.

Circuit function	Port connection	Port connection	Orifice	Q _{Nn} value air	Article no. per voltage/frequency		
					024/DC	024/50 - 60	230/50 - 60
					[V/Hz]	[V/Hz]	[V/Hz]
Type: G, solenoid valve 4/2 way Servo-controlled Normally open	G 1/8	G 1/8	3.0	200	134622	134623	134625
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	134630	134631	134633
	Flange for manifold	G 1/8	3.0	200	134634	134635	134637
	Flange for manifold	Flange for manifold 6/4	3.0	200	134638	134639	134641

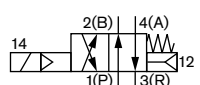


6.4. Ordering chart ATEX/IECEX version

Note:

- Please note that the cable plug must be ordered separately, see [“Cable plug Type 2518, form A acc. to DIN EN 175301 - 803” on page 9](#) or separate data sheet for **Type 2518** ▶.
- Versions acc. to Ex m II T5, Polyamide body with manual override; with moulded cable (3 m long)
- The maximum fluid temperature may never exceed the permissible temperature class (T4 135 °C, T5 100 °C, T6 85 °C) minus 5K.
- Junction box is available on request.
- The pressure range of the following table is 2.5...10 bar.

Circuit function	Port connection	Port connection	Orifice	Q _{Nn} value air	Electrical connection Application	Article no. per voltage/frequency		
						024/UC	110/UC	230/UC - 60
						[V/Hz]	[V/Hz]	[V/Hz]
Type: G, solenoid valve 4/2 way Servo-controlled Normally open	G 1/8	G 1/8	3.0	200	Single unit	350417	On request	On request
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	Single unit	350410	On request	350411
	Flange for manifold	G 1/8	3.0	200	Block assembly	350414	350415	350416
	Flange for manifold	Flange for manifold 6/4	3.0	200	Block assembly	350412	On request	350413



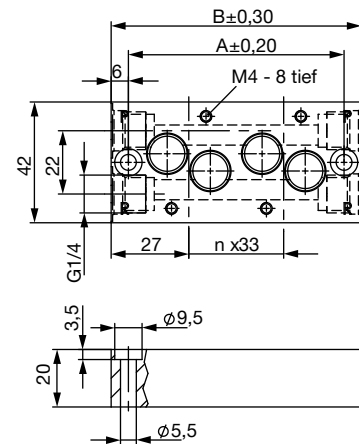
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6.5. Ordering chart accessories

Side by side manifolds made of light metal (Aluminium)

Total Manifolds	Hole spacing A [mm]	Total length B [mm]	Article no.
2	75	87	005356
3	108	120	005357
4	141	153	005372
5	174	186	005373
6	207	219	005374
8	273	285	006553

Accessories for Manifolds	Article no.
Silencer	005424
Screw plug for unused ports 1 or 4	005390
Cover, complete, for unused valve positions on manifolds	005432
Nipple with O-rings for connecting junction plate	005049



Cable plug Type 2518, form A acc. to DIN EN 175301 -803

Note:

For other versions see data sheet **Type 2518** .

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry (AC/DC)	0...250 V AC/DC	314802
		With LED (AC/DC)	12...24 V AC/DC	314812
		With LED and varistor (AC/DC)	12...24 V AC/DC	314820
		With rectifier, LED and varistor	12...24 V AC/DC	314816

Cable plug Type 2513, form A acc. to DIN EN 175301 -803




Note:

- The cable plug Type 2513 meets the requirements of ATEX category 3 GD.
- For more information on the cable plug, see data sheet **Type 2513** .

Cable plug	Circuit diagram	Cable length [mm]	Article no.
		12000	260893
		5000	260892
		3000	260891
		300	260890

Cable glands for ATEX/IECEx terminal box**Note:**

- A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at surcharge.
- For more information on Ex cable glands, see “6.1. Cable glands for ATEX/IECEx terminal box” on page 12.

Description	Article no.
Ex cable gland, brass, nickelplated, 6...13 mm ^{1.)}	773278 
Ex cable gland, polyamide, 7...13 mm ^{1.)}	773277 
Set SC02-AC10: Special wrench ^{2.)} incl. service manual	293488 

1.) Cable diameter

2.) Not included in the scope of delivery of the valve

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