



Ball valve / butterfly valve with electrical rotary actuator

- High flow rates
- Actuator with adjustable limit switches
- Visual position indicator
- Manual override as standard



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

Can be combined with

Type description

The Type 8804 electrical ball valve consists of an electrical rotary actuator and a 2/2-way or 3/2-way ball valve made of stainless steel. 2-way variants are available with a 2-part or 3-part ball valve for a wide range of applications. The 3-way ball valves are available in L-bore and T-bore variants. The electrical rotary actuator has a compact construction. It can also be used as single device for the operation of other control elements (see Type 3003 data sheet). Heat resistors and torque limiters are standard. The housing is made of hardly inflammable material, classified according to UL 94 V0.

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1. General technical data

Product characteristics	
Dimensions	Further information can be found in chapter "4. Dimensions" on page 5.
Material	
Seal	PTFE
Body	Stainless steel 1.4408/316
Material of electrical actuator	
Cover	Nylon
Body	PA 6.6
Axis	Stainless steel
Screws	Stainless steel
Gear	Stainless steel, PC
Performance data	
Rotation angle	90° (± 5°)
Rotation time	Further information can be found in chapter "7.3. Ordering chart" on page 10.
Limit switches	4 adjustable (2 for the motor and 2 additional ones for feedback) Max. 250 V AC/5 A
Electrical data	
Operating voltage	15...30 V AC 50...60 Hz, 12...48 V DC. 100...240 V AC 50...60 Hz, 100...350 V DC
Voltage tolerance	± 10 % At 12...48 V DC, the operating voltage must not drop below 11.5 V.
Duty cycle	According to IEC34, S4 = 50 %
Medium data	
Medium temperature	Depending on the used ball valve and the medium pressure, see "6.1. Pressure temperature diagram for stainless steel ball valves" on page 9.
Process/Port connection & communication	
Electrical connection	Cable plug according to EN 175301 - 803 (supply voltage) included Cable glands according to ISO M20
Port connection	Rp ¼"...Rp 2½" Whitworth thread according to DIN EN 10226 - 1 (old DIN 2999) Welded connection (on request)
Armature-side resp. actuator-side interface	Flange according to ISO 5211
Approvals and conformities	
Degree of protection	IP66 if mounted with cable plug
Environment and installation	
Installation position	Do not install the actuator upside down, maximum installation angle: 90°
Ambient temperature	
For Type 3003 Standard actuator	- 10 °C...+ 55 °C
For Type 3003 actuator with electronic emergency reset	- 10 °C...+ 40 °C

2. Approvals and conformities

2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

2.2. Conformity

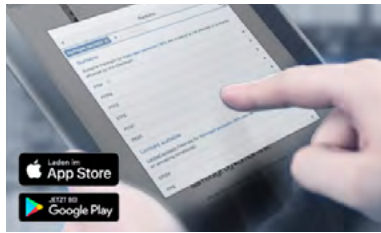
In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

2.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

3. Materials

3.1. Bürkert resistApp



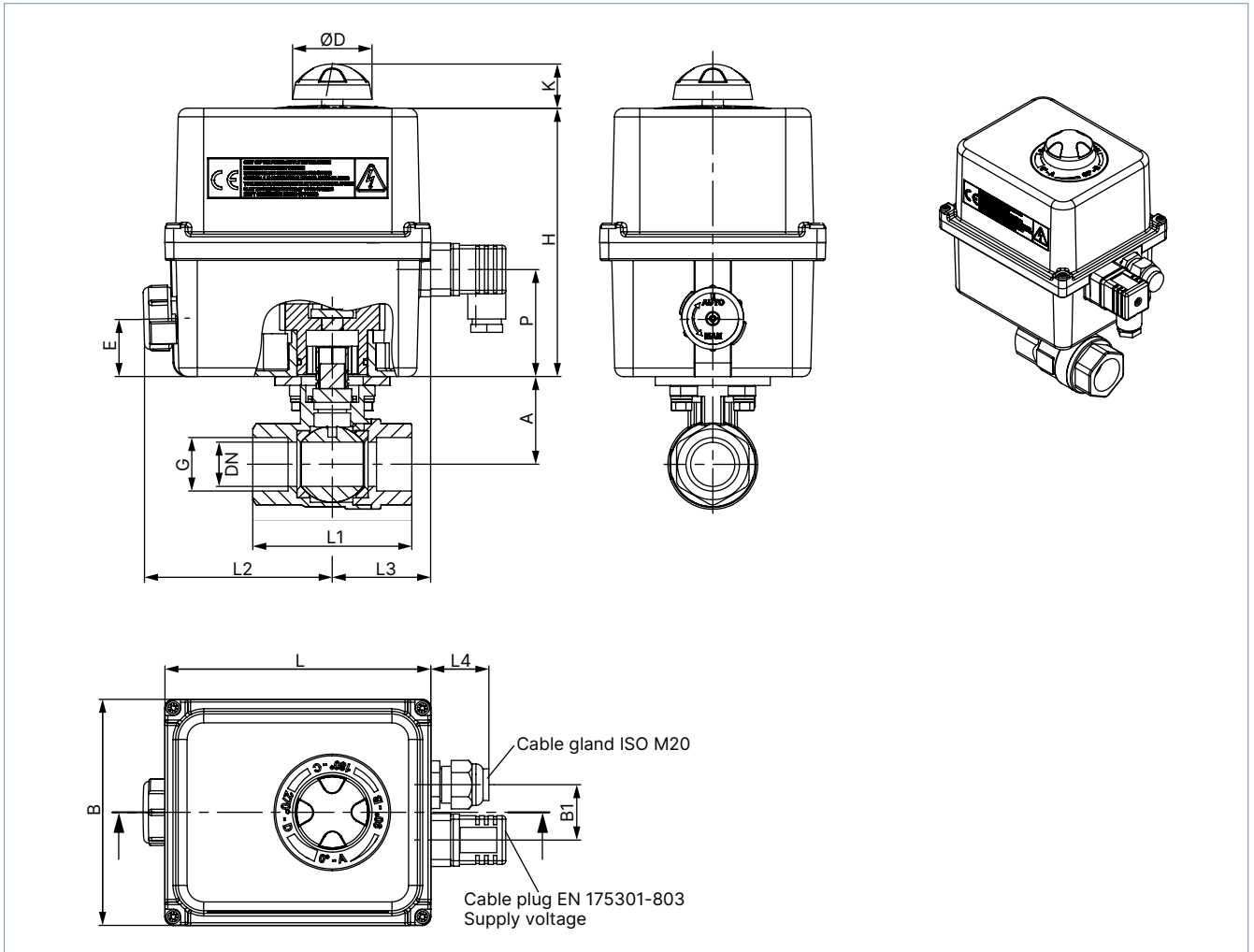
Bürkert resistApp – Chemical resistance chart

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

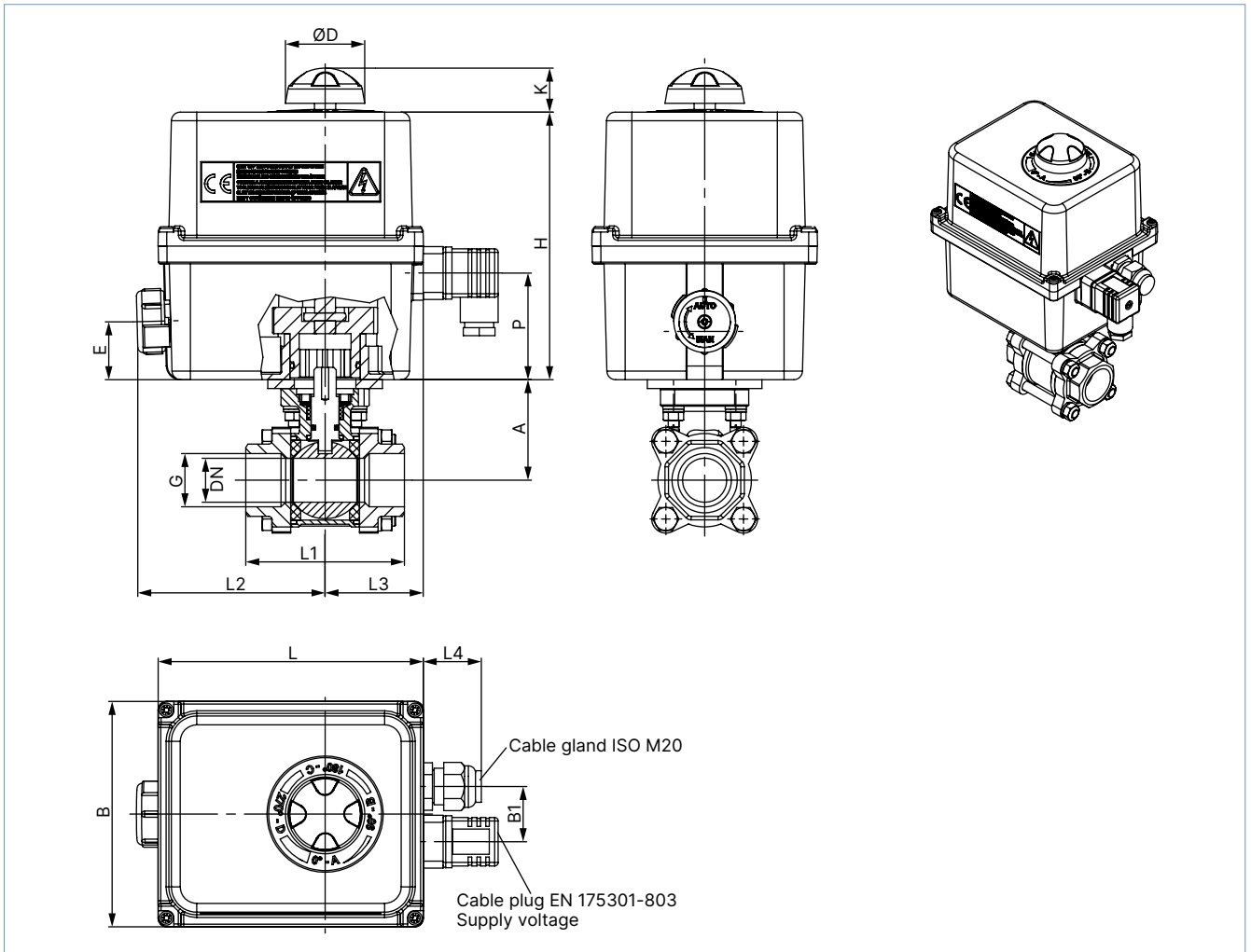
4.1. 2-piece ball valve



Actuator	DN	Port connection	A	B	B1	ØD	E	H	K	L	L1	L2	L3	L4	P
[Nm]		[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
20	10	¼	33.2	91.7	30.0	37.1	23.5	123.7	24.5	136.5	50	103.6	45.4	29.7	47
	13	⅜	33.2								60				
	15	½	35								75				
	20	¾	41								80				
35...100	10	¼	44.2	127.7	31.3	37.1	32.5	150.8	25.5	150.3	50	106.3	55.7	29.7	60.5
	13	⅜	44.2								60				
	15	½	46								75				
	20	¾	41								80				
	25	1	44.5								90				
	32	1¼	49.5								110				
	40	1½	55								120				
	50	2	66.5								140				
	65	2½	101								185				

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4.2. 3-piece ball valve



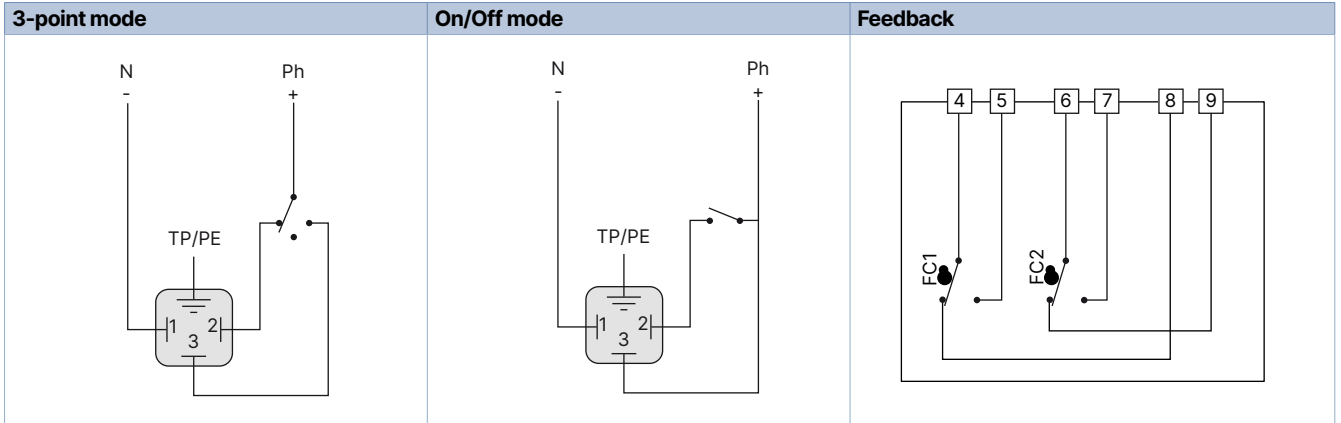
Actuator	DN	Port connection	A	B	B1	ØD	E	H	K	L	L1	L2	L3	L4	P
[Nm]		[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
20	10	¼	40	91.7	30	37.1	23.5	123.7	24.5	136.5	65	103.6	45.4	29.7	47
	12	⅜									75				
	15	½									80				
	20	¾	44												
35...100	10	¼	40	127.7	31.3	37.1	32.5	150.8	25.5	150.3	65	106.3	55.7	29.7	60.5
	12	⅜									75				
	15	½									80				
	20	¾									90				
	25	1									110				
	32	1¼									120				
	40	1½									140				
	50	2									185				
65	2½	98													

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5. Device / Process connections

5.1. Connection details

On/Off variant

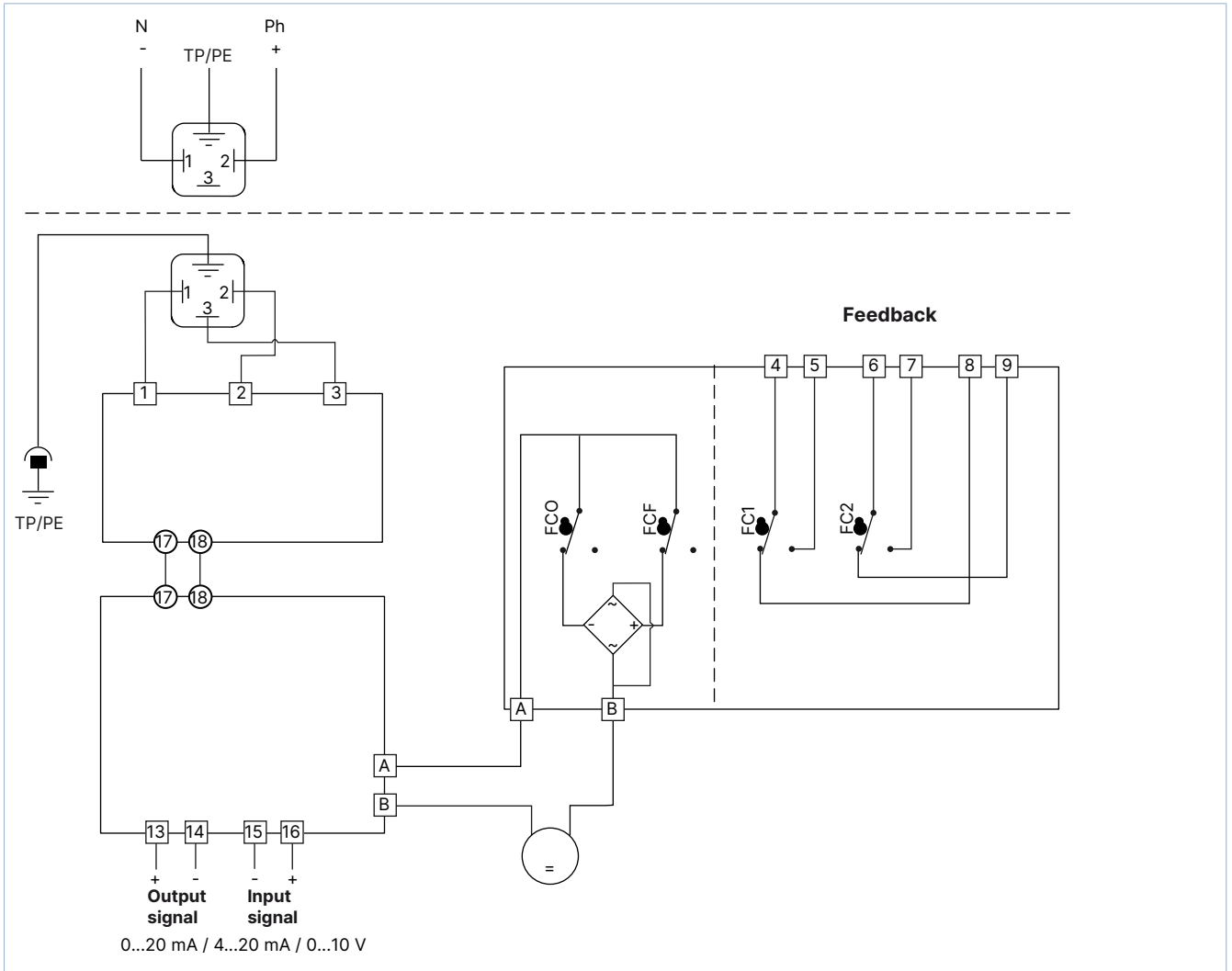


Symbol	Description
FCO	Limit switch OPEN
FCF	Limit switch CLOSED
FC1	Auxiliary limit switch 1
FC2	Auxiliary limit switch 2

Variant with analogue signal input

Note:

- The resolution of the closed-loop control mode is 1°.
- The input resistance for control 0...10 V is 10 kΩ.
- The input resistance for control 0...20 mA/4...20 mA is 100 Ω.



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Symbol	Description
FCO	Limit switch OPEN
FCF	Limit switch CLOSED
FC1	Auxiliary limit switch 1
FC2	Auxiliary limit switch 2

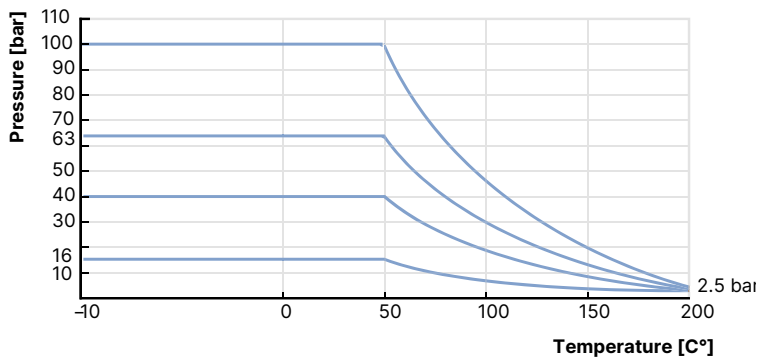
6. Performance specifications

6.1. Pressure temperature diagram for stainless steel ball valves

Note:

The temperature limit values of the actuators are usually lower than those of the valves. Therefore it has to be ensured that the temperature limits of other system components (like actuators) are not exceeded due to possible heat radiation from the medium.

For general industrial use



7. Ordering information

7.1. Bürkert eShop



Bürkert eShop – Easy ordering and quick delivery

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7.2. 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.

















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7.3. Ordering chart



Nominal diameter	Port connection Ø	K _v value [m ³ /h]	Pressure range [bar]	90° rotation time [s]	Actuator [Nm]	Voltage ¹⁾	Article no. 2-piece
	[inch]						
10	¼	7	0...100	12	20	100...240 V AC, 50...60 Hz, 100...350 V DC	226466 
12.7	⅜	9	0...100	12	20		226468 
15	½	19	0...100	12	20		226469 
20	¾	46	0...100	7	35		226470 
25	1	72	0...100	7	35		226471 
32	1¼	105	0...100	12	60		226472 
40	1½	170	0...100	23	100		226473 
10	¼	7	0...100	12	20	15...30 V AC, 50...60 Hz, 12...48 V DC	226475 
12.7	⅜	9	0...100	12	20		226476 
15	½	19	0...100	12	20		226477 
20	¾	46	0...100	7	35		226478 
25	1	72	0...100	7	35		226479 
32	1¼	105	0...100	12	60		226480 
40	1½	170	0...100	23	100		226481 

1.) At 12...48 V DC, the operating voltage must not drop below 11.5 V.

Nominal diameter	Port connection Ø	K _v value [m ³ /h]	Pressure range [bar]	90° rotation time [s]	Actuator [Nm]	Voltage ¹⁾	Article no. 3-piece
	[inch]						
10	¼	7	0...63	12	20	100...240 V AC, 50...60 Hz, 100...350 V DC	226483 
12.7	⅜	9	0...63	12	20		226484 
15	½	19	0...63	12	20		226485 
20	¾	46	0...63	12	20		226486 
25	1	72	0...63	7	35		226487 
32	1¼	105	0...63	7	35		226488 
40	1½	170	0...63	12	60		241107 
50	2	275	0...63	12	60	226490 	
10	¼	7	0...63	12	20	15...30 V AC, 50...60 Hz, 12...48 V DC	226496 
12.7	⅜	9	0...63	12	20		226497 
15	½	19	0...63	12	20		226498 
20	¾	46	0...63	12	20		226499 
25	1	72	0...63	7	35		226500 
32	1¼	105	0...63	7	35		225945 
40	1½	170	0...63	12	60		241109 
50	2	275	0...63	12	60	226502 	













1.) At 12...48 V DC, the operating voltage must not drop below 11.5 V.

Further variants on request

	Additional <ul style="list-style-type: none"> Position controller with standard signal input 4...20 mA or 0...10 V Feedback via potentiometer or 4...20 mA analogue signal Slowly rotating variant 3-position actuator (90° or 180°) Emergency reset 3/2-way variant 		Port connection 3-piece ball valves also available in variants with NPT thread or welded connection
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7.4. Ordering chart accessories


Reducing sleeves

Description	Article no.
Reducing sleeve double square/square 14/9 mm	665288 
Reducing sleeve double square/square 14/11 mm	665289 
Reducing sleeve square/square 17/14 mm	665290 
Reducing sleeve double square/square 17/14 mm	773348 
Reducing sleeve double square/square 17/11 mm	773343 
Reducing sleeve square/square 22/19 mm	773836 
Reducing sleeve double square/square 22/17 mm	684858 
Reducing sleeve double square/double square 22/14 mm	666684 
Reducing sleeve double square/square 22/11 mm	773344 
Reducing sleeve double square/square 27/22 mm	774594 
Reducing sleeve square/square 27/19 mm	774279 
Reducing sleeve square/square 27/17 mm	774193 

Replacement battery for actuators with electronic emergency reset function

Note:

- The battery has to be replaced every 2 years at the latest or after 500 charging cycles.
- Additional information for Type 3004: the person who changes the battery must be trained and qualified to do modifications on ATEX products.
- Actuators without electronic emergency reset when delivered cannot be retrofitted.

Description	Article no.
Replacement battery for actuators of Type 3003 with electronic emergency reset function	770051 
Replacement battery for actuators of Type 3005 and 3004 (25 Nm...300 Nm) with electronic emergency reset function	772991 