



2/2 way ball valve with electric rotary actuator, ball valve in plastic, DN10 - DN50

- Suitable for aggressive media
- High flow rate value
- Actuator with adjustable limit switches
- Visual position indicator
- Safe blocked union nuts with Dual Block® Technology
- Multivoltage



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

Type description

The electrical ball valve Type 8804 consists of an electrical rotary actuator and a 2/2 or 3/2 way ball valve made of plastic. Different housings and materials are available for various applications. The rotary actuator is compactly built. Moreover it can be used also as single device for the operation of other control elements (see datasheet Type 3003). Heat resistors and torque limiters are standard. The body is made of low inflammable material, classified acc. to UL 94 V0.

Special features

The ball valves are equipped with the so-called Dual Block® Technology. This system allows you to lock the union nuts in the preset position and prevents them becoming loose during operation.

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1. General technical data

Product characteristics

Materials

Body	PVC-U, (PP, PVDF, PVC-C on request)
Seal	PTFE/EPDM, (PTFE/FKM on request)

Materials electrical actuator

Cover/Body	Nylon/PA 6.6
Axis/Screws	Stainless steel
Gear	Stainless steel and PC
Operating pressure	0 - 10 bar/0 - 16 bar
Connection between actuator and ball valve	Flange according to ISO 5211
Duty cycle	According to IEC34 S4 = 50 %
Degree of protection	IP66 mounted with cable plug
Actuating times	See Ordering chart
Limit switches	4 adjustable (2 for the motor and 2 additional ones for feedback) Max. 250 V AC/5 A

Electrical data

Operating voltages	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
Electrical connection	Cable plug acc. to EN175301-803 (supply voltage) included Cable glands ISO M20

Media data

Media	Gaseous and liquid media which do not attack the body and seal materials
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Media temperature

PVC-U	0 °C...+60 °C
PP	+10 °C...+80 °C
PVDF	0 °C...+120 °C

Product connections

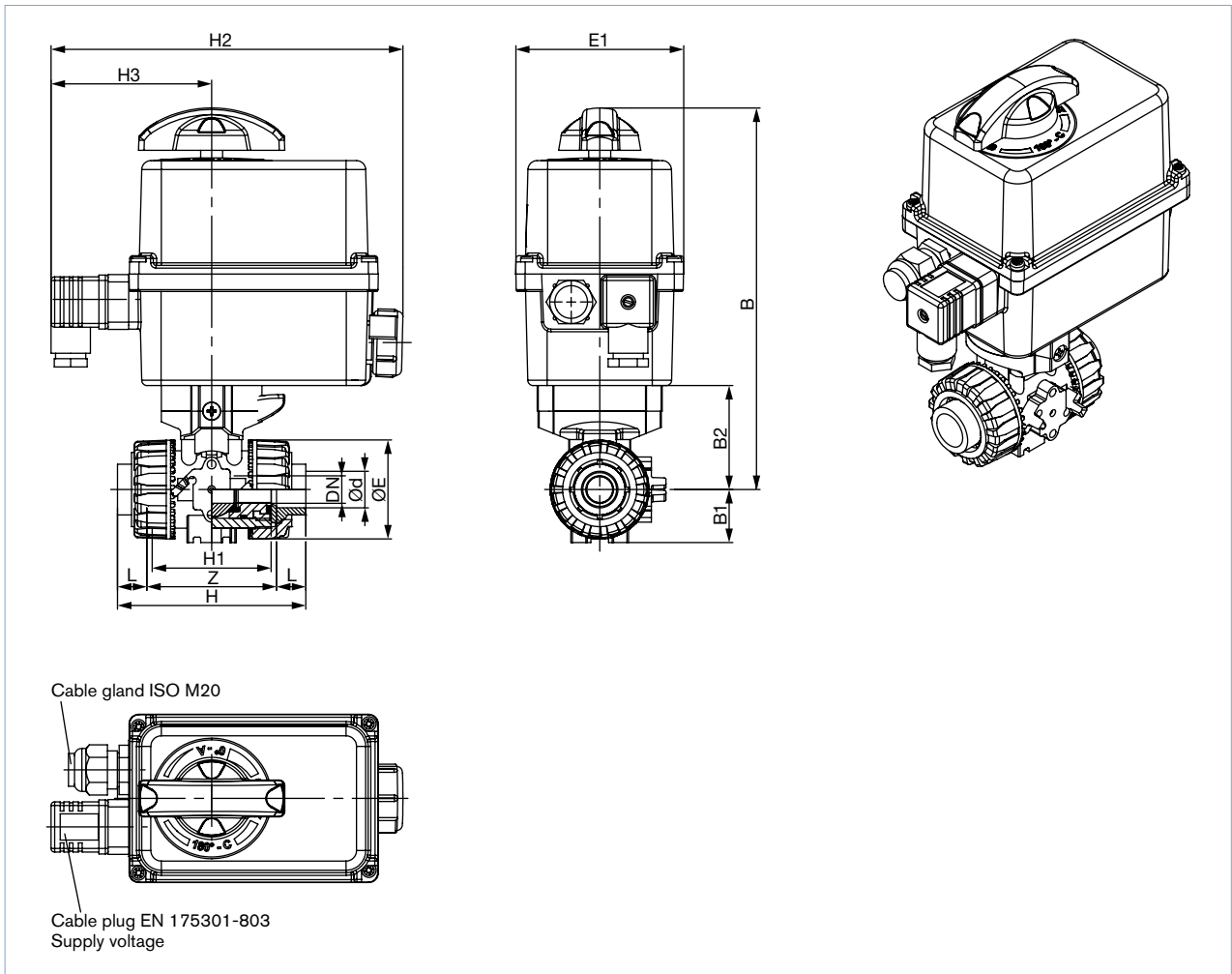
Port connections

PVC-U	Gluing sleeve
PP, PVDF on request	Welded sleeve

Environment and installation

Ambient temperature	-10 °C...+55 °C
Rotation angle	90° (±5°)
Installation position	Do not install actuator with the cover face down (upside down)!

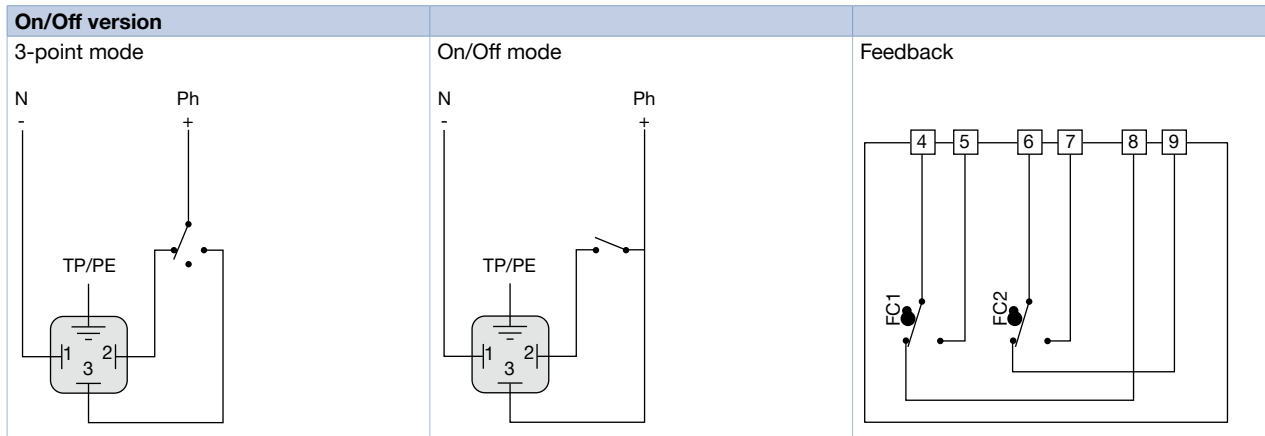
2. Dimensions



DN	Ød	H	H1	Z	L	ØE	B1	B2	B	E1	H2	H3
10	16	103	65	75	14	54	29	58	206	92	180	75
15	20	103	65	71	16	54	29	58	206	92	180	75
20	25	115	70	77	19	65	34.5	69	217	92	180	75
25	32	128	78	84	22	73	39	74	222	92	180	75
32	40	146	88	94	26	86	46	91	239	92	180	75
40	50	164	93	102	31	98	52	97	245	92	180	75
50	63	199	111	123	38	122	62	114	261	92	180	75

3. Device / Process connections

3.1. Connection details

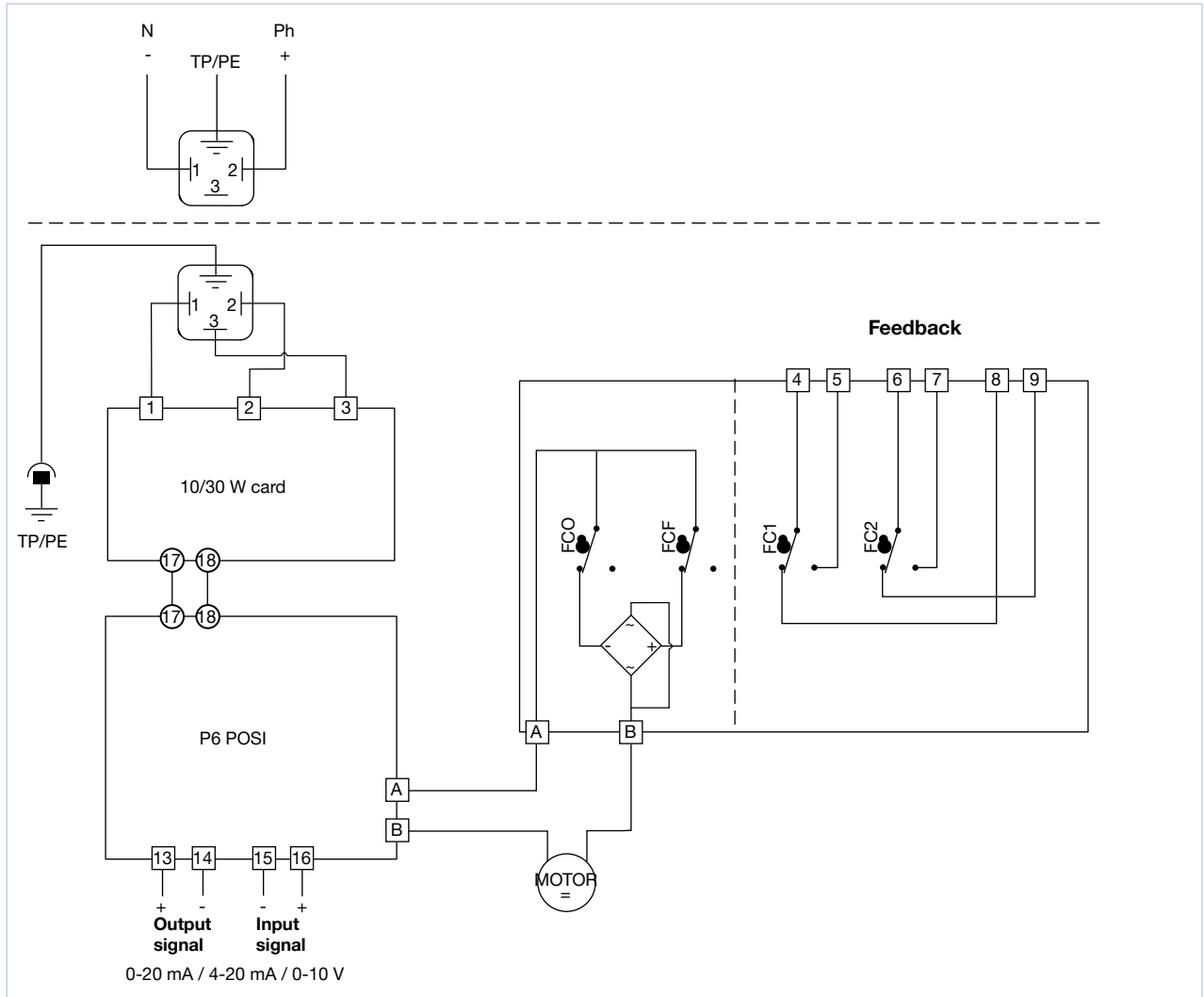


Symbol	Description
FCO	Limit switch OPEN
FCF	Limit switch CLOSED
FC1	Additional limit switch 1
FC2	Additional limit switch 2

Version 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



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

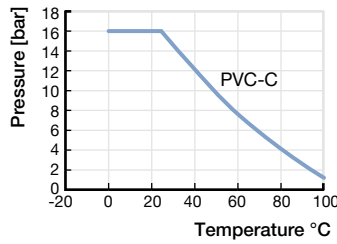
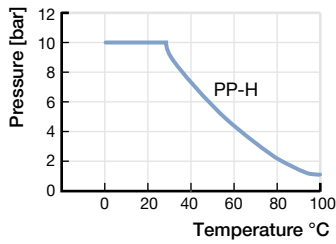
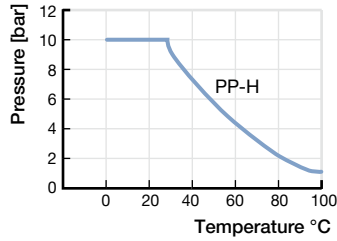
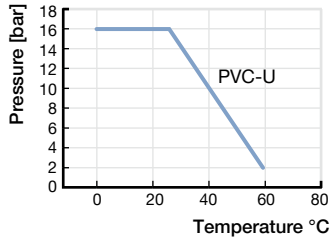
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4. Performance specifications

4.1. Pressure temperature diagram

Note:

The temperature limits of the actuators are usually lower. Therefore the lowest temperature limit values of the included system components (ball valve and actuator) must be observed.



5. Ordering information

5.1. Bürkert eShop – Easy ordering and quick delivery

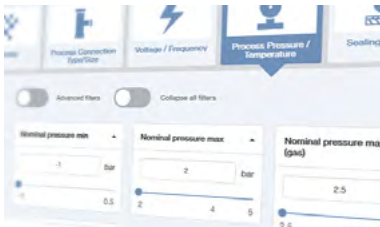


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5.2. Bürkert product filter



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5.3. Ordering chart

Nominal diameter	Port connection Ø	Flow coefficient water	Pressure range PVC-U, PVDF	Pressure range PP	Actuating time for 90°	Actuator	Voltage ^{1.)}	Article no. Adhesive sleeve PVC-U
[mm]	[mm]	[m ³ /h]	[bar]	[bar]	[s]	[Nm]		
Seal material PTFE/EPDM								
10	16	4.8	0...16	0...10	12	20	100...240 V AC 50/60 Hz 100...350 V DC	226440
15	20	12	0...16	0...10	12	20		226453
20	25	23	0...16	0...10	12	20		226454
25	32	46	0...16	0...10	12	20		226455
32	40	66	0...16	0...10	12	20		226456
40	50	105	0...16	0...10	12	20		226457
50	63	204	0...16	0...10	12	20		226178
10	16	4.8	0...16	0...10	12	20	15...30 V AC 50/60 Hz 12...48 V DC	226459
15	20	12	0...16	0...10	12	20		226460
20	25	23	0...16	0...10	12	20		226461
25	32	46	0...16	0...10	12	20		226462
32	40	66	0...16	0...10	12	20		226463
40	50	105	0...16	0...10	12	20		226464
50	63	204	0...16	0...10	12	20		226465

1.) at 12 to 48 V DC the operating voltage must not drop below 11.5 V

Further versions on request

>	Additionalw	Material
	<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 version 3-position actuator (90° or 180°) Version with emergency reset 3/2 way 	Body: PVDF, PVC-C, PP Seal material: FKM on request

5.4. Ordering chart accessories



Adaption flange in PP-GR

Note:

Adaption flange in PP-GR: used for automation of ball valves with pneumatic or electric rotary actuators.

For ball valve orifice [mm]	For port connection Ø [mm]	ISO 5211 Flange	Square [mm]	Double square [mm]	Article no.
10	16	F03/04	11	–	669974
		F03/04	–	14	669980
15	20	F03/04	11	–	669974
		F03/04	–	14	669980
20	25	F03/05	11	–	669975
		F03/05	–	14	669981
25	32	F03/05	11	–	669976
		F03/05	–	14	669982
32	40	F05/07	14	–	669977
40	50	F05/07	14	–	669978
50	63	F05/07	14	–	669979
65	75	F05/07	14	–	672134
80	90				
100	110				

Distance plate kit – used for wall fixing of the plastic ball valves

For ball valve orifice [mm]	For port connection Ø [mm]	Article no.
10 – 25	16 – 32	772678 
32 – 50	40 – 63	772679 

Description	Article no.
Key for setting the limit switches	665296 

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Valve data	
Safety position	With energy storage (factory setting NO) With energy storage (factory setting NC) Without energy storage (last valve position blocked)
Function	Positioner Process controller
Operation	With Touch-Display Without Touch-Display, internal button
Electrical connection	Cable gland M12 multi-pin plug connection
Communication	Analogue: 1 AI, 1 DI 1 AI, 1 DI, 1 AO, 2 DO Digital (Fieldbus): EtherNet/IP PROFINET Modbus TCP CANopen
SIM card	With without

Approvals / Conformities
For use with food (conform to EG regulation no. 1935/2004)
For use with food (conform to FDA)
Explosion protection in accordance with ATEX II 2GD mech. / IECex
European Gas Appliances Directive (EU) 2016/426, DVGW DINEN 161 and DIN EN 16678
For potable water according to KTW/W270
Certificate for the fulfilment of the order EN-ISO 10204 2.1 (Article no. 440788)
Test report EN-ISO 10204 2.2 (Article no. 803722)
Conformity certification for raw material EN-ISO 10204 3.1 (included)
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Additional Requirements / Comment

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