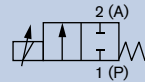


2/2-way Proportional Valve

2873

G 1/8" and G 1/4", DN0.8-4.0 mm

- Excellent range
- Very good repeatability
- Compact Design



The direct-acting solenoid control valve, Type 2873 (32 mm installation width) is used as the regulating unit in control loops. Due to an elastomeric seat seal the valve closes tight, up to the DN specific nominal pressure.

The operation lever of the valve is suspended frictionless, which leads to an extraordinary adjustment characteristic. Valve control takes place through a PWM signal (see control electronics, Type 8605).

Technical data

Body material	Brass, stainless steel
Medium	Neutral gases, liquids on request
Span	1 : 200
Response sensitivity	0.25% of full scale
Rotation time	<20 ms
PWM frequency	1200 Hz
Medium temperature	-10 °C to 90 °C
Ambient temperature	Max. 55 °C
Seal material	FKM
Operating voltages	24 V DC
Power consumption	9 W
Max. coil current¹⁾	420 mA
Duty cycle	100 % continuously rated
Electrical connection	Cable Plug Type 2508 acc. to DIN EN 175301-803 Form A (previously DIN 43650) (not included)
Typical control data²⁾	
at PWM control	
Hysteresis	<5 %
Repeatability	< 0.5 % F.S. ³⁾
Protection class	IP65 (with cable plug)

¹⁾ Maximum value, value depends on operating pressure

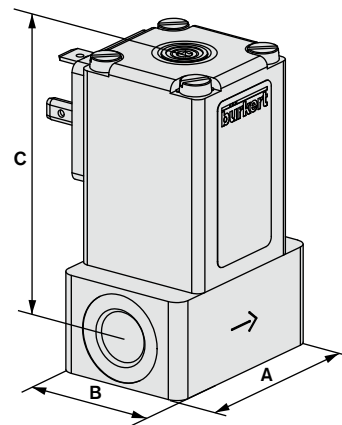
²⁾ Characteristic data of control behaviour depends on process conditions

³⁾ by flow measurement

Options/Accessories

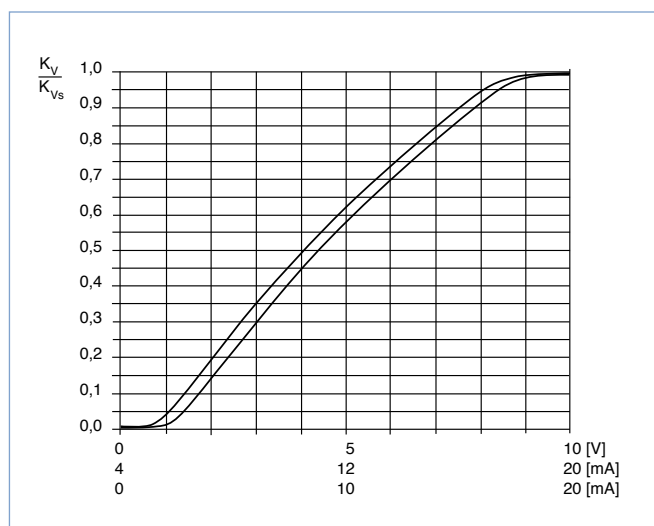
- Seal material EPDM
- 12V coil
- Oxygen versions
- Parts oil-, fat- and silicon free
- Flange

Dimensions [mm] (see datasheet for further Details)



Size	A	B	C
G 1/8"	32	32	57
G 1/4"	32	46	69.5

Characteristics of a proportional valve



Advice for valve sizing

In continuous flow applications, the choice of an appropriate valve size is much more important than with on/off valves. The optimum size should be selected such that the resulting flow in the system is not unnecessarily reduced by the valve. However, a sufficient part of the pressure drop should be taken across the valve even when it is fully opened.

Recommended value: $\Delta p_{\text{valve}} > 25\%$ of total pressure drop within the system

Otherwise, the ideal, linear valve curve characteristic is changed. If the differential pressure (difference between inlet and outlet pressure) exceeds half the value of the nominal pressure, the characteristics may change.

For that reason take advantage of Bürkert competent engineering services during the planning phase!

Ordering Chart

Port connection [inch]	Orifice [mm]	Kv value [m ³ /h]	Nominal pressure [bar(ü)]	Max. differential pressure [bar]	Max. coil current [mA]	Item no.	
						Brass	Stainless steel
Type 2873							
G 1/8	0.8	0.018	16	8	420	234 289	234 305
G 1/8	1.2	0.04	12	6	420	234 292	234 307
G 1/8	1.5	0.06	10	5	420	234 294	234 309
G 1/4	2	0.1	8	4	420	234 297	234 312
G 1/4	2.5	0.15	5	2.5	420	234 299	234 314
G 1/4	3	0.22	3.5	1.8	420	234 301	234 316
G 1/4	4	0.32	2	1	420	234 303	234 318

Accessories

Description	Item no.
Control electronics Type 8605, DIN-Rail version	178 363
Control electronics Type 8605, cable plug with PG-connection	178 354
Control electronics Type 8605, cable plug with M12-connection	178 355
Cable 5 m for Type 8605, M12-connection	918 038
Cable plug Type 2508	008 376
Cable plug Type 2508 with 3 m cable	783 573