burkert
FLUID CONTROL SYSTEMS



2/2-way Solenoid Valve for gases and fluids

- Universal valve with coupled diaphragm system
- Switches without differential pressure
- For gases and liquids
- Brass and stainless steel bodies
- Seal material NBR, EPDM and FKM

Type 0290 can be combined with...



Type 2508
Cable plug



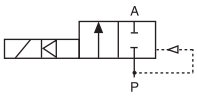
Type 1078
Timer unit
(only for AC version)



Type 2511
ASI cable plug

Pilot-controlled normally-closed valve with servo-diaphragm, forced valve lifting and coupled magnetic system. The valve switches without differential pressure from 0 bar with gases and liquids.

Circuit function A



2/2-way valve,
normally closed
by spring force

Technical data	
Orifice	DN 12 - 50 mm
Body material	Brass, stainless steel 1.4581
Coil material	Epoxy
Coil insulation class	H
Internal parts of valve	Brass, stainless steel 1.4105, 1.4301
Seal material	NBR, FKM, EPDM
Media NBR FKM EPDM	 Neutral media, compressed air, water, hydraulic oil Per-solutions, hot oils Oil and fat-free media, e.g., hot water
Media temperature[1)] NBR FKM EPDM	 -10 to +80 °C 0 to +120 °C - 30 to +120 °C
Ambient temperature	Max. +55 °C
Voltage tolerance	±10%
Duty cycle	100% continuous cycle
Electrical connection	Cable plug for Ø 7 mm cable, acc. to DIN EN 175301-803 Form A (supplied as standard)
Protection class	IP 65 with cable plug
Installation	As required, preferably with actuator upright

[1)] Max. medium temperature for versions with high power electronics (with coding... /UC) withstands 90°.

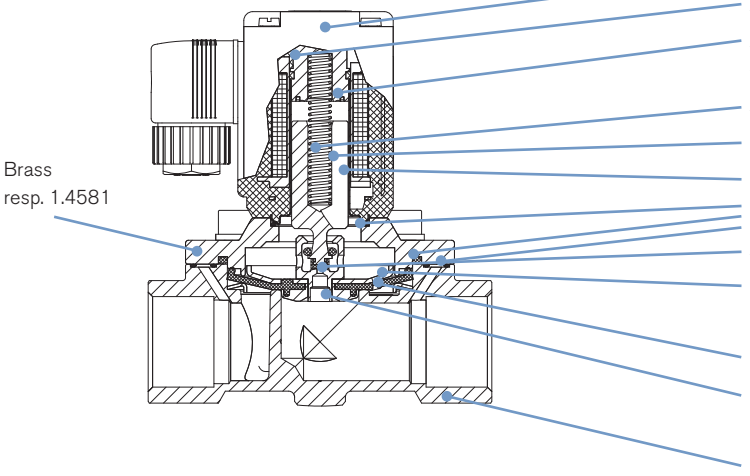
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Technical data, *continued*

Orifice [mm]	Kv value water P→A [m³/h]	Port connection A/B and P	Pressure range [bar]	Power consumption				Response times		Weight [kg]
				Inrush AC [VA]	UC [W]	Hold AC [VA/W]	UC [W]	Opening [ms]	Closing [ms]	
12	1.8	G 1/2	0 - 16	100	80	25/10	6	100 to 250	700 to 2000	1.0
20	5.0	G 3/4	0 - 16	120	100	32/16	9			1.4
25	10.0	G 1	0 - 16	120	100	32/16	9			1.8
32	16.0	G 1 1/4	0 - 12	120	100	32/16	9	300 to 1000	700 to 4000	2.7
40	16.0	G 1 1/2	0 - 12	120	100	32/16	9			3.1
50	38.0	G 2	0 - 12	-	30	-	30			6.5

Flow rate Kv value water [m³/h]	measured at +20°C, 1 bar pressure at valve inlet and free outlet
Pressure values [bar]	gauge pressures with respect to the prevailing atmospheric pressure
Response times [ms] Opening Closing	measured with water at valve outlet at 6 bar and +20°C pressure build-up 0 to 90% pressure decay 100 to10%

Material

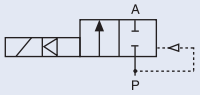


Coil	Epoxy
Stopper	1.4105
Shading ring (only AC version)	Brass version: copper Stainless steel version: silver
Spring	1.4310
Magnetic core	1.4105
Guide tube	1.4303
O- ring	(see ordering chart)
Seat seal	(see ordering chart)
Diaphragm support disc	Brass version: CuZn37 Stainless steel version: 1.4401
Diaphragm	(see ordering chart)
Pilot seat and nippel	Brass version: CuZn39Pb3 Stainless steel version: 1.4401
Body	Brass or stainless steel 1.4581

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Ordering chart for valves (other versions on request)

Brass and stainless steel body, all valves with cable plugs

Circuit function	Port connection	Orifice	Kv value water [m³/h]	Pressure range [bar	Diaphragm material	Item no. per voltage/frequency [V/Hz] 024/50	024/UC/DC [1]	230/50	110/50
A 2/2-way valve NC 	**Brass body**								
	G 1/2	12	1.8	0-16	NBR	043 816	050 294	044 373	049 500
					FKM	048 707	049 229	042 886	059 240
					EPDM	045 931	049 050	044 816	049 055
	G 3/4	20	5.0	0-16	NBR	058 766	049 518	045 292	057 127
					FKM	053 910	053 674	049 745	067 973
					EPDM	065 033	058 427	045 290	069 138
	G 1	25	10.0	0-16	NBR	048 171	053 675	045 293	053 869
					FKM	–	066 981	058 627	–
					EPDM	054 245	057 155	045 291	064 887
	G 1 1/4	32	16.0	0-12	NBR	085 290	085 291	052 513	085 292
					FKM	–	–	087 203	–
					EPDM	–	–	085 259	–
	G 1 1/2	40	16.0	0-12	NBR	085 294	085 295	085 297	085 296
					FKM	–	–	087 663	–
					EPDM	–	–	087 732	–
	G 2	50	38.0	0-12	NBR	–	085 299 [3]	085 301 [2]	085 300 [2]
					EPDM	–	–	077 494 [2]	–
	Stainless steel body								
	G 1/2	12	1.8	0-16	NBR	043 659	053 595	043 654	052 358
					FKM	048 708	049 987	042 888	058 407
					EPDM	045 765	048 606	043 553	049 053
	G 3/4	20	5.0	0-16	NBR	–	–	065 121	–
					FKM	065 362	066 381	064 701	066 594
					EPDM	066 460	059 910	065 025	025 870
	G 1	25	10.0	0-16	NBR	–	–	065 414	–
					FKM	018 121	065 542	066 125	069 477
					EPDM	–	018 348	059 901	–

[1] The coil for UC power supply is provided with an integrated high power elecronic. Please check sufficient power supply (see technical data table on page 2)

[2] The valve is provided with a cable plug with integrated rectifier

[3] Only DC

Further versions on request

Voltage
042/50, 110/50, 240/50

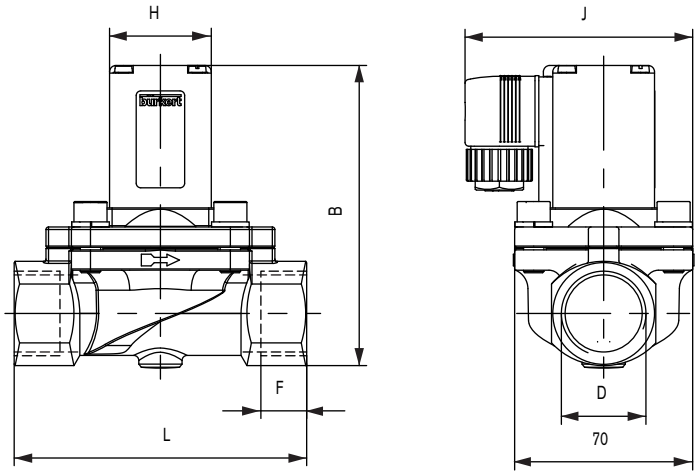
Approvals
UL, UR, CSA

Port connection
Flange connection acc. to DIN 2501 (DN 25-50

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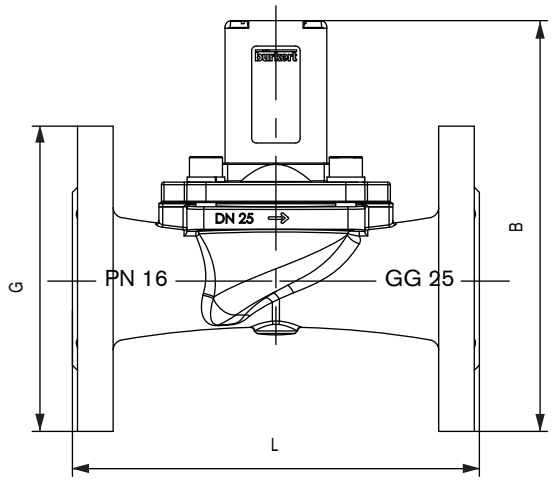
Dimensions [mm]

Threaded port version



DN	D	B	E	F	H	J	L
12	G 1/2	95.5	40	14	40	73	74.5
20	G 3/4	122	60	16	49	86.5	100
25	G 1	131	70	18	49	91.5	115
32	G 1 1/4	145	85	20	49	99	126
40	G 1 1/2	154	85	22	49	99	126
50	G 2	211	115	24	72	126	164

Flange version acc. to DIN 2501



DN	B	G	L
25	175	120	160
32	190	140	180
40	199	150	200
50	259	165	230

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In case of special application conditions, please consult for advice.

Subject to alteration.
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