



Type 0290 can be combined with...



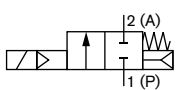
Type 2508
Cable plug



Type 1078
Timer unit
(only for AC version)

The 0290 valve is a servo-assisted solenoid valve of the S.EV series. The valve opens without differential pressure. The opening process is supported by the fixed coupling of the diaphragm to the plunger. In the process, the integrated 'soft-kick' function opens in a manner that is gentle on the material. Various diaphragm material combinations are available depending on the application. The housing offered is rounded out by a stainless steel and grey cast iron version. The solenoid coils are moulded with a chemically resistant epoxy. 'Kick and drop' electronics are moulded into all DC variants for reduced electrical power consumption. In combination with a plug in accordance with DIN EN 175301 - 803 Form A, the valves satisfy protection class IP65 – in combination with a stainless steel housing NEMA 4X.

Circuit function A



2/2 way servo-controlled solenoid valve, normally closed

Servo-assisted 2/2 way Diaphragm valve

- Servo-assisted diaphragm with diameter of up to DN50
- Hard-coupled diaphragm opens without differential pressure
- Vibration-proof, block screwed coil system
- Damped design for quiet closing
- Energy-saving power reduction in all DC versions

Technical data	
Orifice With approval acc. to DIN EN 161	DN12 ... 50 mm DN12... 25 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 NBR with approval acc. to DIN EN 161	Neutral media, compressed air, water, hydraulic oil Per-solutions, hot oils Oil and fat-free media e.g. hot water Fuel gases of the 1st, 2nd and 3rd gas family
Media temperature^{1.)} NBR FKM EPDM NBR with approval acc. to DIN EN 161	-10 to +80 °C 0 to +120 °C -30 to +120 °C 0 to +80 °C
Ambient temperature With approval acc. to DIN EN 161	Max. +55 °C 0 to +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	IP65 with cable plug
Installation	As required, preferably with actuator upright
Flow rate	Measured at +20 °C, 1 bar pressure at valve inlet and free outlet
Pressure values [bar]	Overpressure to atmospheric pressure
Response times [ms] Opening Closing	Measured with water at valve outlet 6 bar and +20 °C pressure build-up 0 to 90 % pressure reduction 100 to 10 %

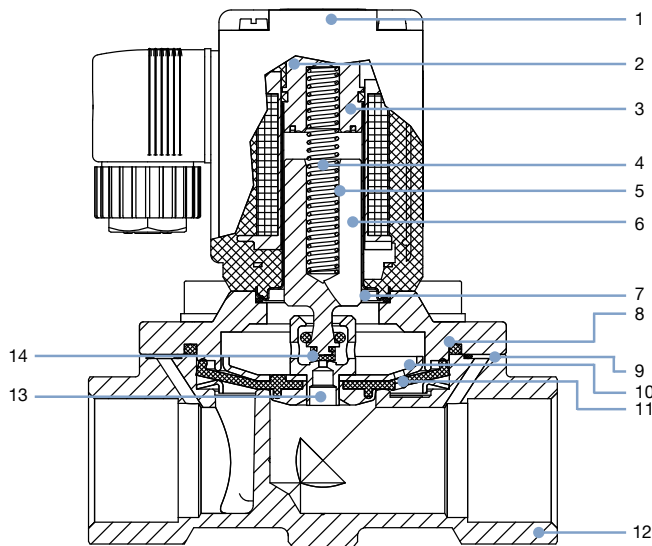
1.) Max. medium temperature for versions with high-performance electronics (encryption.../UC) is 90 °C.

Orifice [mm]	K _v 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 ½	0...16	100	80	25/10	6	100 to 250	700 to 2000	1.0
20	6.5	G ¾	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 1¼	0...12	120	100	32/16	9	300 to 1000	700 to 4000	2.7
40	16.0	G 1½	0...12	120	100	32/16	9			3.1
50	38.0	G 2	0...12	-	30	-	30			6.5

Gas valve according to DIN EN 161, variable code PO17

Orifice [mm]	K _v 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 ½	0...5	100 to 120	80	25/10	6	120 to 150	130 to 250	1.0
20	6.5	G ¾	0...5		100	32/16	9			1.4
25	10.0	G 1	0...5		100	32/16	9			1.8

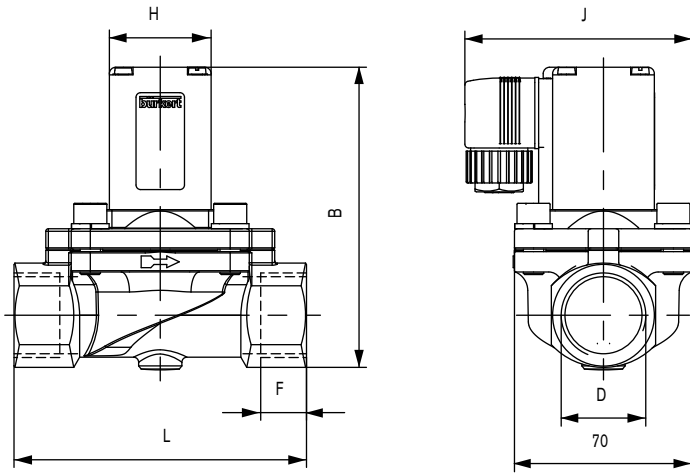
Material



No.	Element	Material
1	Coil	Epoxy
2	Stopper	1.4105
3	Shading ring (only AC version)	Brass version: copper Stainless steel version: silver
4	Spring	1.4310
5	Magnetic core	1.4105
6	Guide tube	1.4303
7	O-ring	(see ordering chart)
8	O-ring	(see ordering chart)
9	O-ring	(see ordering chart)
10	Diaphragm support disc	Brass version: CuZn37 Stainless steel version: 1.4401
11	Diaphragm	(see ordering chart)
12	Body	Brass or stainless steel 1.4581
13	Pilot seat and nip- pel	Brass version: CuZn39Pb3 Stainless steel version: 1.4401
14	Seat seal	(see ordering chart)

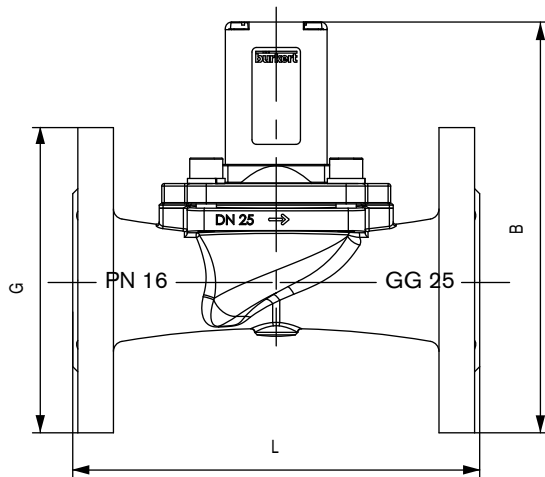
Dimensions [mm]

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 EN 1092-1



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

Ordering chart for valves (other versions on request)

Brass and stainless steel body, all valves with cable plugs

Circuit function	Port connection	Orifice	K _v value water [m ³ /h]	Pressure range [bar]	Diaphragm material	Article no. per voltage/frequency [V/Hz]			
						024/50	024/UC/DC ¹⁾	230/50	110/50
A 2/2 way valve, normally closed 	Brass body								
	G 1/2	12	1.8	0 ... 16	NBR	043816	050294	044373	049500
					FKM	048707	049229	042886	059240
					EPDM	045931	049050	044816	049055
	G 3/4	20	6.5	0 ... 16	NBR	058766	049518	045292	057127
					FKM	053910	053674	049745	067973
					EPDM	065033	058427	045290	069138
	G 1	25	10.0	0 ... 16	NBR	048171	053675	045293	053869
					FKM	066270	066981	058627	067974
					EPDM	054245	057155	045291	064887
	G 1 1/4	32	16.0	0 ... 12	NBR	085290	085291	052513	085292
					FKM	120631	017457	087203	137478
					EPDM	087204	072962	085259	073763
	G 1 1/2	40	16.0	0 ... 12	NBR	085294	085295	085297	085296
					FKM	228118	089619	087663	-
					EPDM	073290	079629	087732	-
	G 2	50	38.0	0 ... 12	NBR	-	085299 ³⁾	085301 ²⁾	085300 ²⁾
					EPDM	-	120104 ³⁾	077494 ²⁾	121308 ²⁾
					FKM	-	120952 ³⁾	088551 ²⁾	-
	Stainless steel body								
	G 1/2	12	1.8	0 ... 16	NBR	043659	053595	043654	052358
					FKM	048708	049987	042888	058407
					EPDM	045765	048606	043553	049053
	G 3/4	20	6.5	0 ... 16	NBR	068338	018754	065121	-
FKM					065362	066381	064701	066594	
EPDM					066460	059910	065025	025870	
G 1	25	10.0	0 ... 16	NBR	068510	061974	065414	067696	
				FKM	018121	065542	066125	069477	
				EPDM	059890	018348	059901	054044	

Gas valve according to DIN EN 161, variable code PO17

Circuit function	Port connection	Orifice	K _v value water [m ³ /h]	Pressure range [bar]	Diaphragm material	Article no. per voltage/frequency [V/Hz]		
						024/UC	230/50	230/UC
A 2/2 way valve, normally closed 	G 1/2	12	1.8	0 ... 5	NBR	280855	266512	281001
	G 3/4	20	6.5			280877	266513	280878
	G 1	25	10.0			280879	266515	280880

1.) The coil for UC power supply is provided with an integrated high power electronic. Please check sufficient power supply (see technical data table on page⁹)

2.) The valve is provided with a cable plug with integrated rectifier

3.) Only DC

Further versions on request

Voltage
042/50, 110/50, 240/60

Approvals
UL, UR, CSA

Port connection
Flange connection acc. to DIN EN 1092 - 1 (DN25 ... 50)

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

Subject to alteration.
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