



Type 0290 can be combined with...



**Type 2508**

Cable plug



**Type 1078**

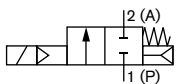
Timer unit  
(only for AC version)

## Servo-assisted 2/2-way diaphragm valve

- Servo-assisted diaphragm with diameter of up to DN 50
- 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

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 17301-803 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

Technical data	
<b>Orifice</b>	DN12 - 50 mm
<b>Body material</b>	Brass, stainless steel 1.4581
<b>Coil material</b>	Epoxy
<b>Coil insulation class</b>	H
<b>Internal parts of valve</b>	Brass, stainless steel 1.4105, 1.4301
<b>Seal material</b>	NBR, FKM, EPDM
<b>Media</b>	NBR Neutral media, compressed air, water, hydraulic oil FKM Per-solutions, hot oils EPDM Oil and fat-free media, e.g., hot water
<b>Media temperature<sup>1)</sup></b>	NBR -10 to +80 °C FKM 0 to +120 °C EPDM -30 to +120 °C
<b>Ambient temperature</b>	Max. +55 °C
<b>Voltage tolerance</b>	±10%
<b>Duty cycle</b>	100% continuous cycle
<b>Electrical connection</b>	Cable plug for Ø 7 mm cable, acc. to DIN EN 175301-803 Form A (supplied as standard)
<b>Protection class</b>	IP65 with cable plug
<b>Installation</b>	As required, preferably with actuator upright

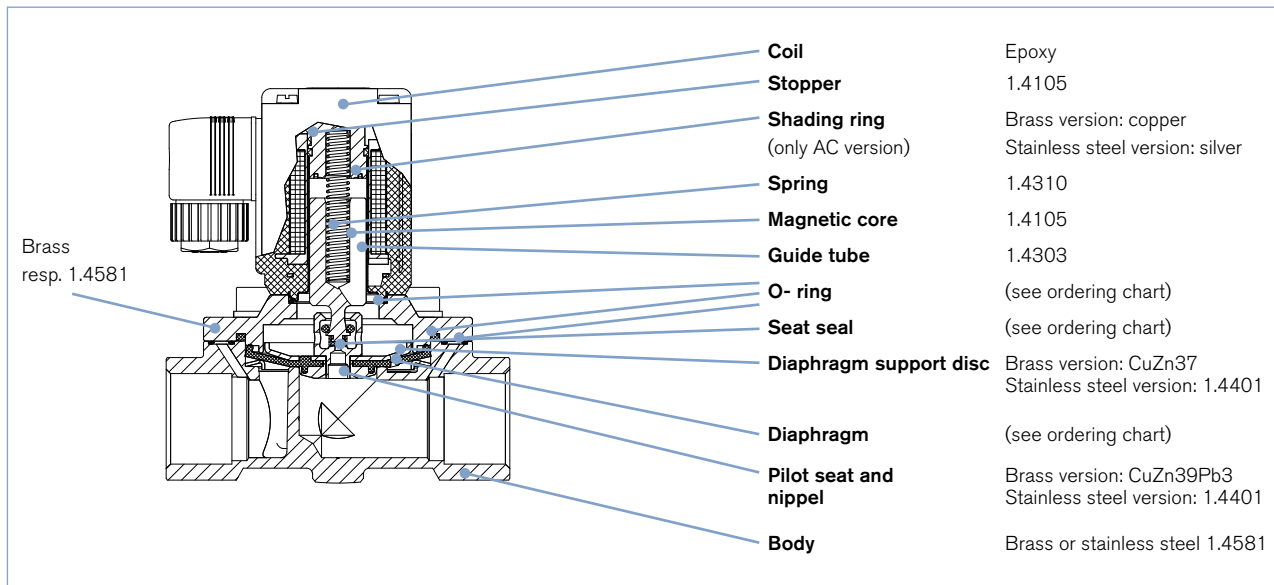
<sup>1)</sup> Max. medium temperature for versions with high power electronics (with coding... /UC) withstands 90°.

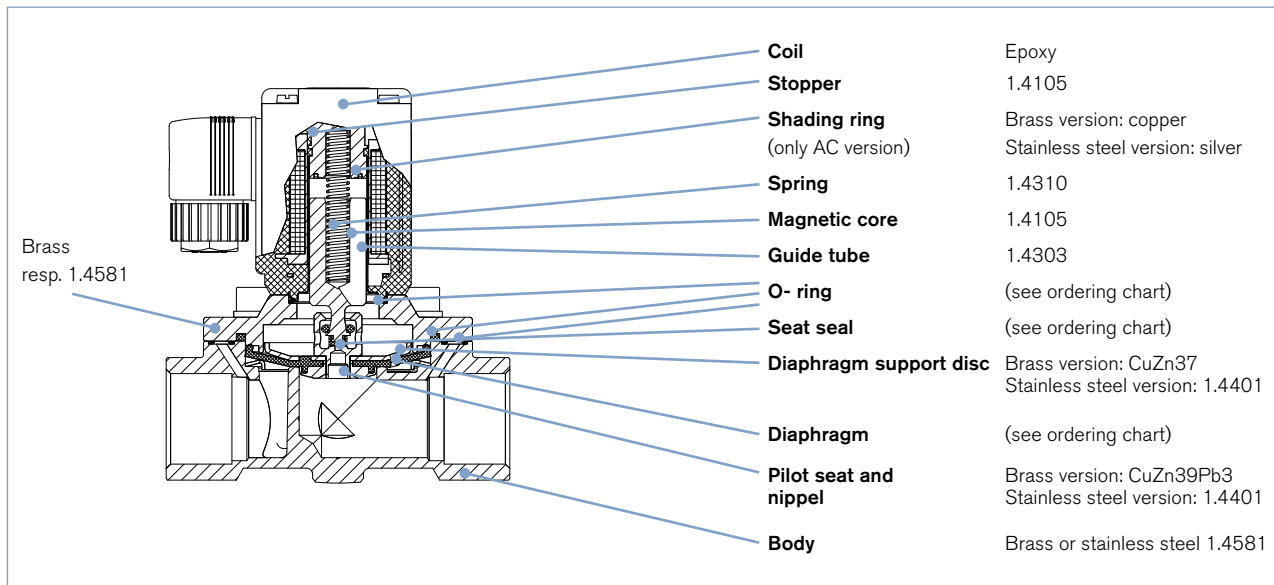
## Technical data, continued

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

<b>Flow rate</b> Kv value water [m³/h]	measured at +20°C, 1 bar pressure at valve inlet and free outlet
<b>Pressure values [bar]</b>	gauge pressures with respect to the prevailing atmospheric pressure
<b>Response times [ms]</b> Opening Closing	measured with water at valve outlet at 6 bar and +20°C pressure build-up 0 to 90% pressure decay 100 to 10%

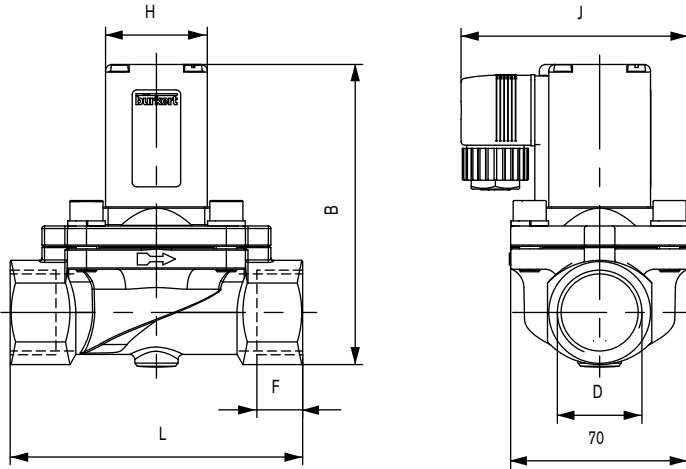
## Material



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

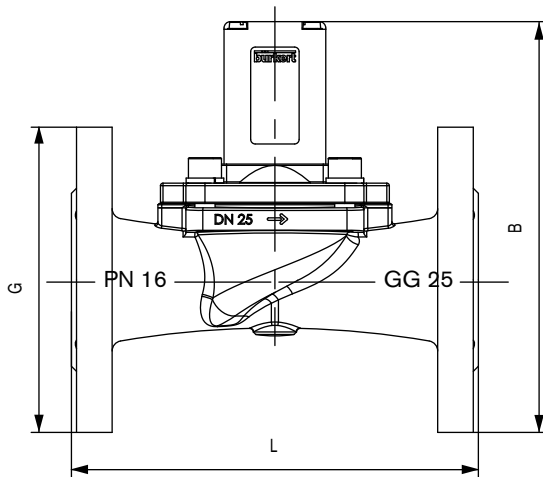
Dimensions [mm]

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

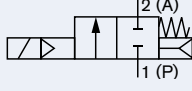
Flange version acc. to DIN 2501



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

## 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 [m <sup>3</sup> /h]	Pressure range [bar]	Diaphragm material	Item no. per voltage/frequency [V/Hz]				
						024/50	024/UC/DC <sup>1)</sup>	230/50	110/50	
<b>A</b> 2/2 way servo-controlled solenoid valve, normally closed 	<b>Brass body</b>									
	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	5.0	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	-	066981	058627	-	
					EPDM	054245	057155	045291	064887	
	G 1 1/4	32	16.0	0-12	NBR	085290	085291	052513	085292	
					FKM	-	-	087203	-	
					EPDM	-	-	085259	-	
	G 1 1/2	40	16.0	0-12	NBR	085294	085295	085297	085296	
					FKM	-	-	087663	-	
					EPDM	-	-	087732	-	
	G 2	50	38.0	0-12	NBR	-	085299 <sup>3)</sup>	085301 <sup>2)</sup>	085300 <sup>2)</sup>	
					FKM	-	-	-	-	
					EPDM	-	-	077494 <sup>2)</sup>	-	
	<b>Stainless steel body</b>									
	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	5.0	0-16	NBR	-	-	065121	-	
FKM					065362	066381	064701	066594		
EPDM					066460	059910	065025	025870		
G 1	25	10.0	0-16	NBR	-	-	065414	-		
				FKM	018121	065542	066125	069477		
				EPDM	-	018348	059901	-		

<sup>1)</sup> The coil for UC power supply is provided with an integrated high power electronic.  
Please check sufficient power supply (see technical data table on page 2)

<sup>2)</sup> The valve is provided with a cable plug with integrated rectifier

<sup>3)</sup> Only DC

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

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