

2/2-way Solenoid Valve with servo diaphragm



Type 6228 can be combined with...



Type 2506

Cable plug to DIN EN 175301-803 Form C ²⁾



Type 2507

Cable plug industrial standard Form B



Type 2510

ASI cable plug

- servo-assisted
- 0.5 ... 10 bar¹⁾
- DN 10 mm, DN 13 mm
- PPE/PA body (Noryl)

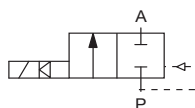
The Type 6228 is a servo-assisted 2/2-way solenoid valve with servo-diaphragm. It is particularly suited for neutral media.

Without electrical power, this solenoid valve is closed. Pressure builds up through the servo-diaphragm, which pushes the latter downwards and thereby keeps the valve closed. On switching, the space above the servo-diaphragm will be relieved via the pilot valve.

As a result, the pressure of the medium lifts the servo-diaphragm, and the main valve opens. A minimum differential pressure of 0.5 bar is required for complete opening and closing. The special design and geometry of the internal parts of the valve produce a soft closing function with very low pressure peaks only.

It is very simple to extend the valve radially.

Circuit function A



2/2-way valve, servo-assisted, normally closed, with 2-way pilot valve

Technical data	
Body material	PPE, PA (Noryl)
Body cover	PPE, PA (Noryl)
Valve internal parts	PPS, Ms
Sealing material	NBR, EPDM, FPM
Media	Neutral media that does not attack the materials (e.g. compressed air, water, hydraulic oil, oils, greases without additives)
Medium temperature	
NBR	0 ... +50 °C
EPDM	-10 ... +50 °C
FPM	0 ... +50 °C
Ambient temperature	0 ... +50 °C
Port connection	Threaded ports G 3/8, G 1/2 (see Ordering charts Accessories)
Operating voltage	24 V DC, 24 / 110 / 230 V / 50-60 Hz
Voltage tolerance	±10%
Duty cycle	100 % continuous rating
Electrical connection	<ul style="list-style-type: none"> ▪ Tag connectors sideways ▪ To DIN EN 175301-803 C² for cable plug Type 2506 / 2510 (see Ordering charts Accessories)
Installation	As required, preferably with actuator upright
Mass	130 g (DN 10), 180 g (DN 13)
Protection class	IP65 with cable plug

¹⁾ Pressure data [bar]: Overpressure with respect to atmospheric pressure

²⁾ so far DIN 43650

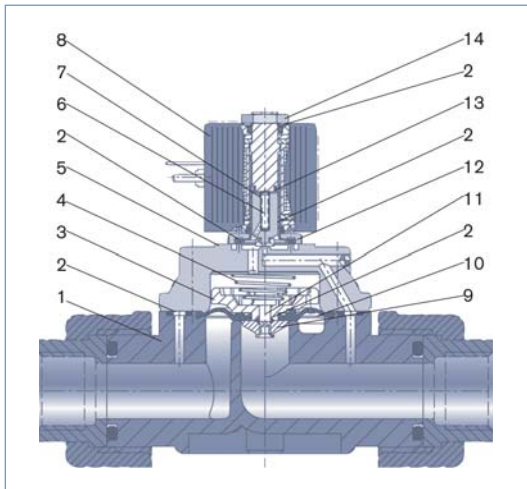
Response times

Orifice [mm]	Kv value water (m ³ /h)	Port connection	Pressure range	Power consumption				Response times	
				Pick up		Operation		Opening [ms]	Closing [ms]
				AC [VA]	DC [W]	AC [VA]	DC [W]		
10	1.8	G 3/8	0.5 - 10	9	4	6	4	30	150
13	3.2	G 1/2	0.5 - 10	9	4	6	4	to 60	to 300

¹⁾ Pressure data [bar]: Overpressure with respect to atmospheric pressure

- k_v value [m³/h]: Flow rate value for water, measured at +20 °C and 1 bar¹⁾ pressure differential over a fully opened valve.
- Response times [ms]: measured at valve outlet at 6 bar¹⁾ and +20 °C
Opening: pressure build-up 0 ... 90 %, closing: pressure relief 100 ... 10 %

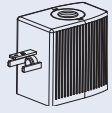
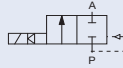
Material



1	Body	PPE / PA (Noryl)
2	O-ring	NBR, FPM, EPDM
3	Diaphragm support	PPS
4	Spring	1.4310
5	Body cover	PPE / PA (Noryl)
6	Core	1.4105
7	Spring	1.4310
8	Coil	
	DIN EN 175301-803 C ²⁾	PA
	DIN 43650 B	Epoxy
	(industrial standard)	
9	Diaphragm support	Brass, PPS
10	Diaphragm	NBR, FPM, EPDM
11	Bolts	1.4401
12	Flange	Zn3glcC (surface)
13	Shading ring	Cu
14	Nut	9SMnPb28K (surface Zn5glcA)

Ordering charts

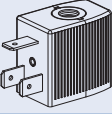
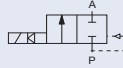
Type 6228 solenoid valve complete with coil according to DIN EN 175301-803 Form C ²⁾ for Type 2506 appliance plug

	Valve operation	Orifice [mm]	Kv value Water [m ³ /h]	Pressure range [bar] ¹⁾	Sealing material	Voltage/frequency [V/Hz]	Item no.
	A	10	1.8	0.5 - 10	NBR	24/DC	142 220
						24/50 - 60	142 221
						110/50 - 60	142 222
						230/50 - 60	142 223
					EPDM	24/DC	142 224
						24/50 - 60	142 225
						110/50 - 60	142 226
						230/50 - 60	142 227
					FPM	24/DC	142 228
						24/50 - 60	142 229
						110/50 - 60	142 230
						230/50 - 60	142 231
		13	3.2	0.5 - 10	NBR	24/DC	142 232
						24/50 - 60	142 233
						110/50 - 60	142 234
						230/50 - 60	142 235
					EPDM	24/DC	142 236
						24/50 - 60	142 237
						110/50 - 60	142 238
						230/50 - 60	142 239
					FPM	24/DC	142 240
						24/50 - 60	142 241
						110/50 - 60	142 242
						230/50 - 60	142 243

¹⁾ Pressure data [bar]:
Overpressure with respect to atmospheric pressure

²⁾ so far DIN 43650

Type 6228 solenoid valve complete with Form B coil (industrial standard) for Type 2506 cable plug


	Valve operation	Orifice [mm]	Kv value Water [m ³ /h]	Pressure range [bar] ¹⁾	Sealing material	Voltage/frequency [V/Hz]	Item no.
	A	10	1.8	0.5 - 10	NBR	24/DC	163 660
						24/50 - 60	163 671
						110/50 - 60	163 672
						230/50 - 60	163 673
					EPDM	24/DC	163 674
						24/50 - 60	163 675
						110/50 - 60	163 676
						230/50 - 60	163 677
					FPM	24/DC	163 678
						24/50 - 60	163 679
						110/50 - 60	163 680
						230/50 - 60	163 681
		13	3.2	0.5 - 10	NBR	24/DC	163 682
						24/50 - 60	163 683
						110/50 - 60	163 684
						230/50 - 60	163 685
					EPDM	24/DC	163 686
						24/50 - 60	163 687
						110/50 - 60	163 688
						230/50 - 60	163 689
					FPM	24/DC	163 690
						24/50 - 60	163 691
						110/50 - 60	163 692
						230/50 - 60	163 693

¹⁾ Pressure data [bar]:
Overpressure with respect to atmospheric pressure

- All valves in PPE/PA body, without appliance plug and without connector set (see Accessory Ordering charts)
- Other Versions on request.


Accessory ordering charts

Three-part connector set from PPE/PA (Noryl)

	Orifice [mm]	Port connection	Sealing material (O-ring)		Item no.
	10	G 3/8	NBR	142 425	
			FPM	142 426	
			EPDM	142 427	
	13	G 1/2	NBR	142 428	
FPM			142 429		
EPDM			142 430		


- You require two connector sets for one valve.
- The connector set is not included in the standard delivery. It must be ordered separately.

Cable plug type 2506 to DIN EN 175301-803 form C*)

	Circuitry	Features	Item no.
	none (standard)	0 - 250 V AC/DC	008 353
	with LED	12 - 24 V AC/DC	008 402
	with LED and varistor	12 - 24 V AC/DC	008 408
	with rectifier, LED and varistor	12 - 24 V AC/DC	008 354


- Supplied with cable plug: flat seal and fixing screw.
- Other versions of cable plug with circuitry to DIN EN 175301-803 Form C*) (see Datasheet Type 2506).

Cable plug type 2507 to DIN 43650 form B (industrial standard)

	Circuitry	Features	Item no.
	none (standard)	2 - 250 V AC/DC	423 845
	with LED	24 V AC/DC	423 849
	with LED and freewheeling diode	12 - 24 V DC	423 851
	with rectifier, LED and varistor	12 - 24 V AC/DC	423 853

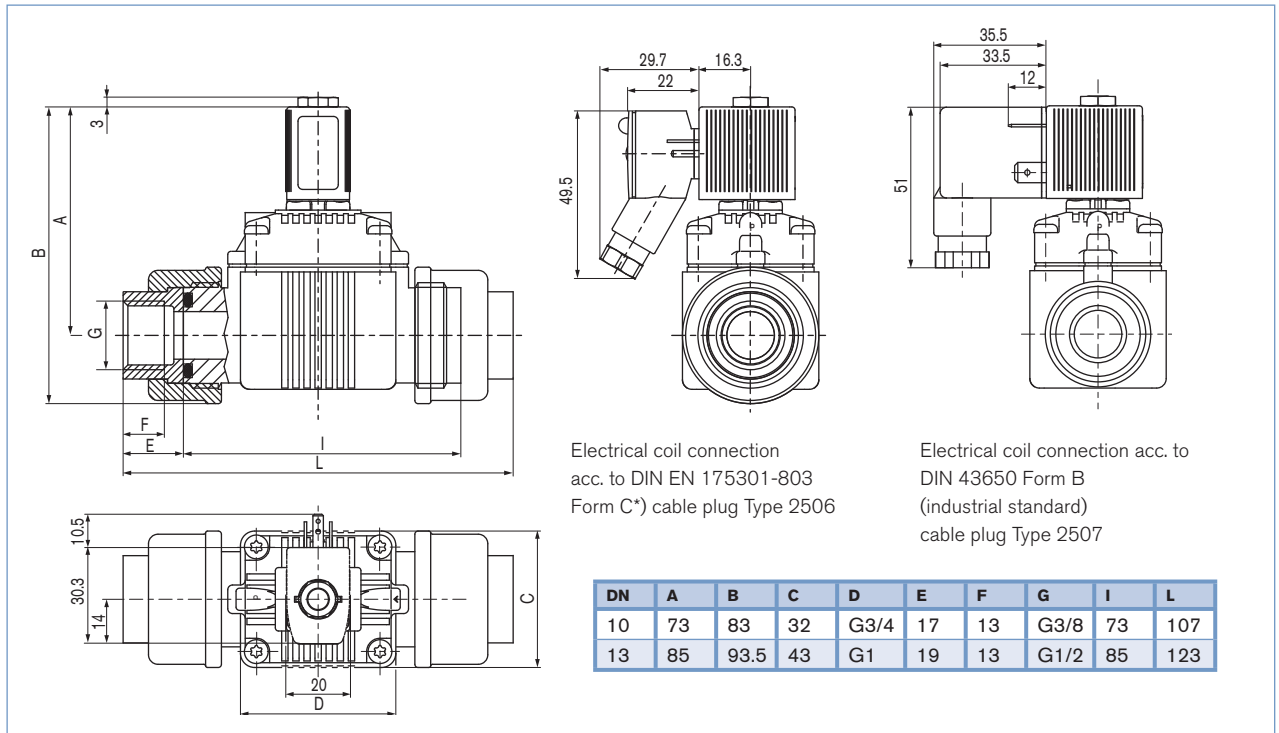
- Supplied with cable plug: flat seal and fixing screw.
- Other versions of cable plug with circuitry to DIN 43650 Form B (industrial standard) (see Datasheet Type 2507).

ASI appliance plug Type 2510 according to DIN EN 175301-803 C*)

	Voltage	Current rating		Item no.
	bus supplied	without	142 693	
		with	142 692	
	external supply	without	142 689	
		with	142 688	

*) so far DIN 43650

Dimensions [mm]



*) so far DIN 43650

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