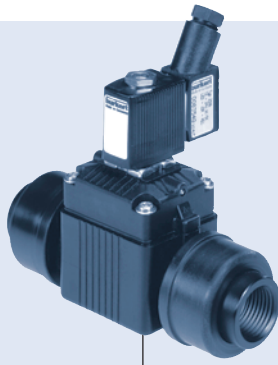


## 2/2-way Solenoid Valve with servo diaphragm



- Servo-assisted
- 7 – 145 PSI
- DN 10 mm, DN 13 mm
- PPE/PA body (Noryl)
- UR/CSA/CE

Type 6228 can be combined with...



### Type 2506

Cable plug to  
DIN EN 175301-  
803 Form C<sup>1)</sup>



### Type 2507

Cable plug  
industrial standard  
Form B



### Type 2510

ASI-  
cable plug

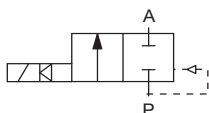
The Type 6228 is a servo-assisted 2/2-way solenoid valve with servo-diaphragm. It is particularly suited for neutral media.

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 7 PSI 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	
<b>Body material</b>	PPE, PA (Noryl)
<b>Body cover</b>	PPE, PA (Noryl)
<b>Valve internal parts</b>	PPS, Ms
<b>Sealing material</b>	NBR, EPDM, FKM
<b>Media</b>	Neutral media that does not attack the materials (e.g. compressed air, water, hydraulik oil, oils, greases without additives)
<b>Medium temperature</b>	
NBR	32°F to 158°F
EPDM	14°F to 158°F
FKM	32°F to 158°F
<b>Ambient temperature</b>	32°F to 131°F
<b>Port connection</b>	Threaded ports NPT 3/8, 1/2 (see <i>Ordering charts Accessories</i> )
<b>Operating voltage</b>	24 V DC, 24/120/240/60HZ
<b>Voltage tolerance</b>	±10%
<b>Duty cycle</b>	100 % continuous rating
<b>Electrical connection</b>	<ul style="list-style-type: none"> <li>▪ Tag connectors sideways</li> <li>▪ to DIN EN 175301-803 C<sup>1)</sup> for cable plug Type 2506 / 2510 (see <i>Ordering charts Accessories</i>)</li> </ul>
<b>Installation</b>	as required, preferably with actuator upright
<b>Mass</b>	130 g (DN 10), 180 g (DN 13)
<b>Protection class</b>	IP65 with cable plug

<sup>1)</sup> Pressure data [PSI]: Overpressure with respect to atmospheric pressure  
<sup>2)</sup> so far DIN 43650

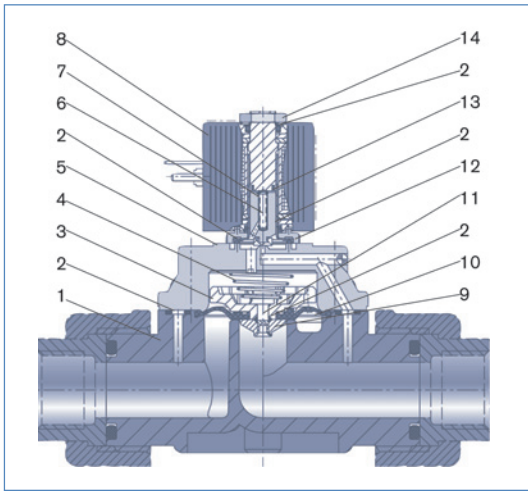
**Response times**

Orifice [mm]	C <sub>v</sub> value water [GPM]	Port connection [NPT]	Pressure range [PSI]	Power consumption				Response times	
				Pick-up		Operation		Opening	Closing
				AC [VA]	DC [W]	AC [VA]	DC [W]	[ms]	[ms]
10	2.11	3/8	7 - 145	9	4	6	4	30	150
13	3.76	1/2	7 - 145	9	4	6	4	to 60	to 300

<sup>1)</sup> Pressure data [PSI]: Overpressure with respect to atmospheric pressure

- C<sub>v</sub> value [GPM]: Flow rate value for water, measured at 68°F and 1 PSI pressure differential over a fully opened valve.
- Response times [ms]: measured at valve outlet at 87 PSI and 68°F  
Opening: pressure build-up 0 ... 90 %, closing: pressure relief 100 ... 10 %

**Material**



- |    |                                   |                                |
|----|-----------------------------------|--------------------------------|
| 1  | Body                              | PPE / PA (Noryl)               |
| 2  | O-ring                            | NBR, FKM, 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 <sup>2)</sup> | PA                             |
|    | DIN EN 175301-803 B <sup>2)</sup> | Epoxy                          |
|    | (industrial standard)             |                                |
| 9  | Diaphragm support                 | Brass, PPS                     |
| 10 | Diaphragm                         | NBR, FKM, EPDM                 |
| 11 | Bolts                             | 1.4401                         |
| 12 | Flange                            | Zn3glcC (surface)              |
| 13 | Shading ring                      | Cu                             |
| 14 | Nut                               | 9SMnPb28K<br>(surface Zn5glcA) |

**Dimensions [mm]**

electrical coil connection acc. to DIN EN 175301-803 Form C<sup>2)</sup> cable plug Type 2506

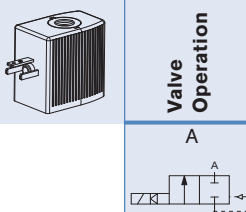
electrical coil connection acc. to DIN EN 175301-803 Form C<sup>2)</sup> (industrial standard) cable plug Type 2507

DN	A	B	C	D	E	F
10	73	83	32	NPT 3/4	17	13
13	85	93.5	43	NPT 1	19	13

DN	G	I	L
10	NPT 3/8	73	107
13	NPT 1/2	85	123

<sup>2)</sup> so far DIN 43650

## Ordering charts

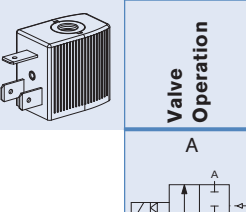
Type 6228 solenoid valve complete with coil according to DIN EN 175301-803 Form C<sup>1)</sup> for Type 2506 appliance plug


Valve Operation	Orifice [mm]	C <sub>v</sub> value Water [GPM]	Pressure range [PSI]	Sealing material	Voltage/frequency [V/Hz]	Item no.
A	10	2.11	7 - 145	NBR	24/DC	459 139
					24 - 60	459 140
					120 - 60	459 141
					240 - 60	459 142
				EPDM	24/DC	459 143
					24 - 60	459 144
					120 - 60	459 145
					240 - 60	459 146
				FKM	24/DC	459 147
					24 - 60	459 148
					120 - 60	459 149
					240 - 60	459 150
	13	3.76	7 - 145	NBR	24/DC	459 151
					24 - 60	459 152
					120 - 60	459 153
					240 - 60	459 154
				EPDM	24/DC	459 155
					24 - 60	459 156
					120 - 60	459 157
					240 - 60	459 158
				FKM	24/DC	459 159
					24 - 60	459 160
					120 - 60	459 161
					240 - 60	459 162

<sup>1)</sup> Pressure data [PSI]:  
Overpressure with respect to atmospheric pressure

<sup>2)</sup> Was DIN 43650

## Type 6228 solenoid valve complete with Form B coil (industrial standard) for Type 2507 cable plug



Valve Operation	Orifice [mm]	C <sub>v</sub> value Water [GPM]	Pressure range [PSI]	Sealing material	Voltage/frequency [V/Hz]	Item no.
A	10	2.11	7 - 145	NBR	24/DC	461 851
					24 - 60	461 852
					120 - 60	461 853
					240 - 60	461 854
				EPDM	24/DC	461 855
					24 - 60	461 856
					120 - 60	461 857
					240 - 60	461 858
				FKM	24/DC	461 859
					24 - 60	461 860
					120 - 60	461 861
					240 - 60	461 862
	13	3.76	7 - 145	NBR	24/DC	461 863
					24 - 60	461 864
					120 - 60	461 865
					240 - 60	461 866
				EPDM	24/DC	461 867
					24 - 60	461 868
					120 - 60	461 869
					240 - 60	461 870
				FKM	24/DC	461 871
					24 - 60	461 872
					120 - 60	461 873
					240 - 60	461 874

<sup>1)</sup> Pressure data [PSI]:  
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	NPT 3/8	NBR	144 433
		FKM	142 415
13	NPT 1/2	EPDM	142 418
		NBR	144 439
		FKM	142 421
		EPDM	142 424

- 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<sup>1)</sup>



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<sup>1)</sup> (see Datasheet Type 2506).

### Cable plug type 2507 to DIN EN 175301-803 form B<sup>1)</sup> (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 EN 175301-803 Form B<sup>1)</sup> (industrial standard) (see Datasheet Type 2507).

### ASI appliance plug Type 2510 according to DIN EN 175301-803 C<sup>1)</sup>



Voltage	Repeat back signal	Item no.
bus supplied	without	142 693
	with	142 692
external supply	without	142 689
	with	142 688

<sup>1)</sup> so far DIN 43650