

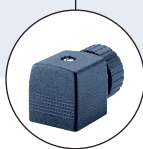
## 2/2 or 3/2-way Solenoid Valve, with pivoted armature and isolating diaphragm



- Lockable manual override as standard
- For liquid, gaseous and aggressive media
- Long service life, even in non-lube conditions
- Insensitive to contaminated fluids
- Analysis version available

- Approvals:    

Type 0330 can be combined with...



**Type 2508**  
Cable plug



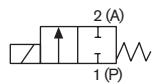
**Type 1078**  
Timer unit



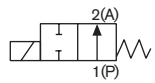
**Type 2511**  
ASI cable plug

The Type 0330 is a direct-acting 2/2 or 3/2-way pivoted armature solenoid valve with a wide range of circuit functions. The magnetic system and the medium are separated by a diaphragm system. The valve is fast-acting and has a long service life, even in non-lube conditions.

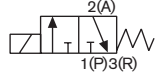
### Circuit functions



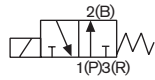
**A** 2/2-way valve NC



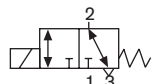
**B** 2/2-way valve NO



**C** 3/2-way valve NC



**D** 3/2-way valve NO



**E** 3/2-way valve, universal function, any flow direction

### Applications

- Water and gas analysis
- Pharmaceutical industry
- Food processing

Technical data	
<b>Port connection</b>	NPT 1/4
<b>Orifice</b>	DN 2.0 - 4.0mm
<b>Body and seat materials</b>	Brass and stainless steel 1.4401
<b>Coil material</b>	Epoxy
<b>Coil insulation class</b>	H
<b>Seal material</b>	NBR and FKM (EPDM, FFKM on request)
<b>Media</b>	NBR Neutral media, such as compressed air, water, hydraulic oil FKM Hot air, oxygen, hot oil, per-solution Oil and fat-free media Hot air, oxygen, hot oil, per-solution on request EPDM on request FFKM
<b>Media temperature</b>	NBR 32°F to 176°F (0°C to +80°C) FKM 32°F to 194°F (0°C to +90°C) -22°F to 194°F (-30°C to +90°C) on request EPDM on request FFKM 32°F to 194°F (0°C to +90°C)
<b>Ambient temperature</b>	max. 131°F (+55°C) (min. temperature see media temp.)
<b>Viscosity</b>	max. 37 cSt
<b>Operating voltage</b>	24 V DC, 24 V/60 Hz, 120 V/60 Hz, 240 V/60 Hz further on request
<b>Voltage tolerance</b>	±10%
<b>Duty cycle</b>	100% continuous rating
<b>Electrical connection</b>	Cable plug Type 2508 (DIN EN 175301-803 Form A) for Ø 7 mm cable (supplied as standard)
<b>Protection class</b>	IP 65 with cable plug
<b>Weight [kg]</b>	0.47
<b>Installation</b>	As required, preferably with actuator upright

## Technical data, cont.

### Power ratings

Orifice [mm]	Power ratings			
	Inrush AC [VA]	Hold AC (hot coil) [VA]	[W]	Hot/cold coil DC [W]
2-4	30	15	8	8 / 11

### Response times

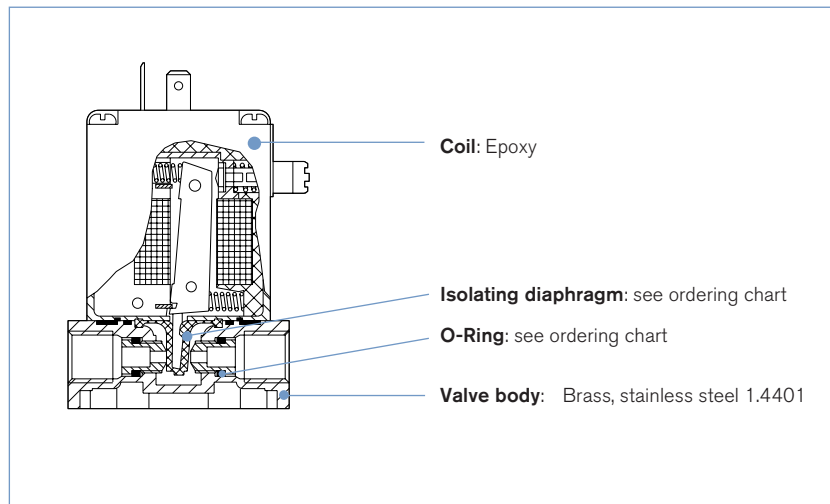
Orifice [mm]	Response times			
	AC Opening [ms]	Closing [ms]	DC Opening [ms]	Closing [ms]
2-4	8-15	8-15	10-20	10-20

#### Response times [ms]:

Measured at valve outlet at 6 bar and +20 °C

Opening: pressure build-up 0 to 90%, closing: pressure relief 100 to 10%

## Materials



Penoresan.com Ordering chart for valves (other versions on request)

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Circuit Functions	Orifice	C <sub>v</sub> <sup>1)</sup>	Port Connection [NPT]	Pressure Range [PSI]	Body Material	Seal Material	Voltage <sup>2)</sup>	Electrical Classifications <sup>3)</sup>	Item no.						
<b>A</b>	2mm	0.09	1/4	0 – 174	Stainless Steel	FKM	024/DC	-	457 681						
							120/60	-	457 682						
							240/60	-	457 683						
	3mm	0.21	1/4	0 – 145	Brass	FKM	024/DC	UR/CSA	461 284						
							120/60	UR/CSA	460 216						
					Stainless Steel	FKM	024/DC	-	457 687						
							024/DC	UR/CSA	459 292						
							120/60	-	457 688						
							120/60	UR/CSA	459 291						
	4mm	0.27	1/4	0 – 72	Stainless Steel	FKM	024/DC	-	457 693						
							120/60	-	457 694						
							240/60	-	457 695						
<b>C</b>	2mm	0.09	1/4	0 – 174	Brass	FKM	024/DC	-	453 692						
							120/60	UR/CSA	450 294						
							120/60	UL/FM/CSA	453 226						
							240/60	UR/CSA	451 708						
					Stainless Steel	FKM	024/DC	UL/FM/CSA	453 223						
							120/60	UR/CSA	450 295						
							120/60	UL/FM/CSA	453 227						
							240/60	UL/FM/CSA	453 229						
							3mm	0.21	1/4	0 – 145	Brass	FKM	024/DC	UR/CSA	451 710
													024/DC	UL/FM/CSA	453 020
													120/60	UR/CSA	450 297
													120/60	UL/FM/CSA	453 018
	Stainless Steel	FKM	240/60	UR/CSA	451 714										
			024/DC	UR/CSA	451 711										
			024/DC	UL/FM/CSA	453 230										
			120/60	UR/CSA	450 298										
			120/60	UL/FM/CSA	453 232										
			240/60	UR/CSA	451 715										
			4mm	0.27	1/4	0 – 72	Brass	FKM	024/DC	UR/CSA	451 716				
									024/DC	UL/FM/CSA	453 235				
	120/60	UR/CSA							451 720						
	120/60	UL/FM/CSA							452 863						
	240/60	UR/CSA							451 722						
	240/60	UL/FM/CSA							453 239						
Stainless Steel	FKM	024/DC					-	454 261							
		024/DC					UL/FM/CSA	453 236							
		120/60					UR/CSA	451 721							
		120/60					UL/FM/CSA	453 239							
		240/60					UL/FM/CSA	453 241							
		240/60					UL/FM/CSA	453 241							

**Notes:**

- 1) C<sub>v</sub> reduced 20% with DC current operation.
- 2) 120/56 suitable for 50Hz or 60 Hz power.
- 3) • U.R. is a U.L. recognized component.
  - U.L. is U.L. listed for general purpose applications.
  - FM is FM approved for Haz location CL 1, Div 2, Groups A, B, C, and D.
  - UL/FM/CSA approved valves come with Type 2509 series conduit plug.

Vacuum versions available on request.

Circuit Functions	Orifice	C <sub>v</sub> <sup>1)</sup>	Port Con- nection [NPT]	Pressure Range [PSI]	Body Material	Seal Material	Voltage <sup>2)</sup>	Electrical Classifica- tions <sup>3)</sup>	Item No.
E	2mm	0.09	1/4	0 – 145	Brass	FKM	024/DC	UR/CSA	457 218
							024/DC	UL/FM/CSA	454 762
							120/60	UR/CSA	450 301
					120/60	UL/FM/CSA	454 490		
					024/DC	UR/CSA	455 574		
					120/60	UR/CSA	453 776		
	3mm	0.21	1/4	0 – 87	Brass	FKM	024/DC	UL/FM/CSA	453 026
							120/60	UL/FM/CSA	453 024
							024/DC	UR/CSA	453 831
					120/60	UR/CSA	453 777		
					120/60	UL/FM/CSA	453 558		
					4mm	0.27	1/4	0 – 43	Brass
						120/60	-	450 795	
						240/60	-	454 151	
				Stainless Steel	FKM	024/DC	UR/CSA	452 808	
						120/60	UL/FM/CSA	453 634	

**Notes:**

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  - 3) • U.R. is a U.L. recognized component.
    - U.L. is U.L. listed for general purpose applications.
    - FM is FM approved for Haz location CL 1, Div 2, Groups A, B, C, and D.
    - UL/FM/CSA approved valves come with Type 2509 series conduit plug.
- Vacuum versions available on request.

**i Further versions on request**



**Approvals**  
Explosion protection (Type 780), ATEX, UL, UR, FM - Ex Div. 1



**Voltage**  
Non-standard voltages



**Materials**  
Seal materials EPDM, FFKM, NBR




**Circuit function**  
B (normally open, 2-way), D (normally open, 3-way) or F (distributing)

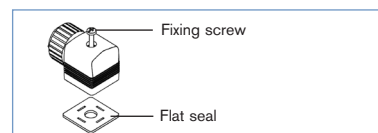


**Additional**  
Impulse version, optical or electrical position feedback, further device combinations

**Ordering chart Accessory**

**Cable plug acc. to DIN EN 175301-803 Form A**

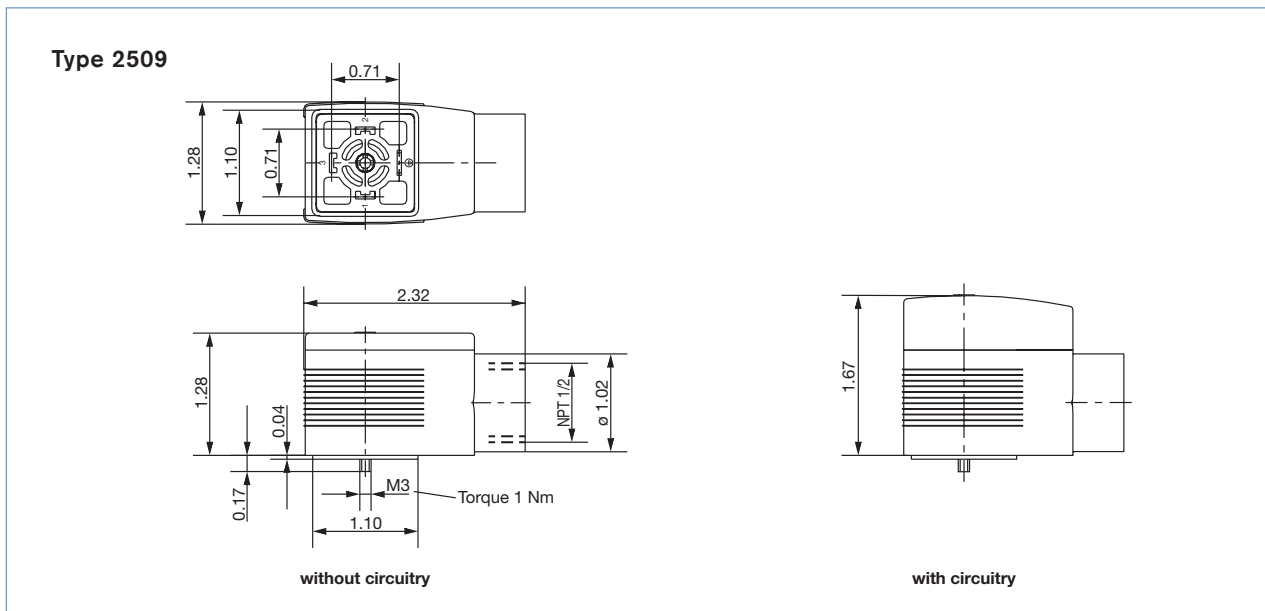
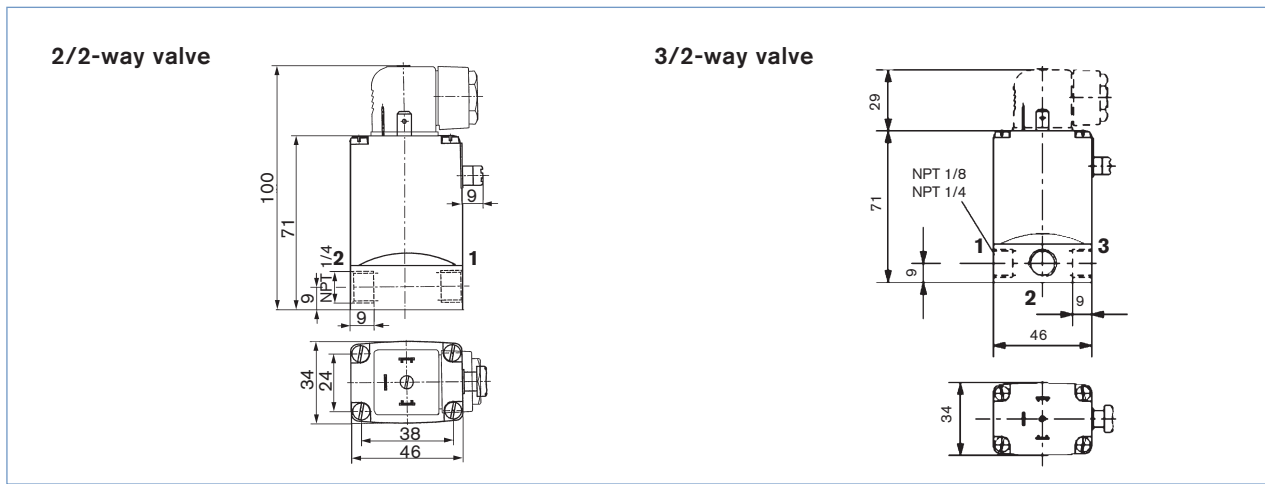
	Circuitry	Voltage / frequency	Item no.
	None (standard)	0 - 250 V AC/DC	008 376
	with LED	12 - 24 V AC/DC	008 360
	with LED and varistor	12 - 24 V AC/DC	008 367
	with rectifier, LED and varistor	12 - 24 V AC/DC	008 363
	with LED	200 - 240 V	008 362
	with LED and varistor	200 - 240 V	008 369
	further versions see datasheet Type 2508		



The delivery of a cable plug includes the flat seal and the fixing screw. For other cable plug versions acc. to DIN EN 175301-803 Form A (previously DIN 43650), see data-sheet Type 2508.

Possible body connections			
Circuit function	1	2	3
A	P	A	-
B	A	P	-
C	P	A	R
D	R	B	P
E	P1	A	P2
F	A	P	B

The connections marked with 1, 2 and 3 are labelled in the drawing according to the circuit function table on the left.



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