



## 3/2-way Solenoid Valve, sub-base



- 3-way solenoid valve with pivoted armature and manual override
- Direct-acting with separating diaphragm
- Fast-acting
- For liquid, gaseous and aggressive medium
- Long service life, even in non-lube conditions
- Approvals:  

Type 0331 can be combined with...



**Type 2508**  
Cable plug



**Type 1078**  
Timer unit



**Type 2511**  
ASI cable plug

The Type 0331 is a direct-acting 3/2-way pivoted armature solenoid valve for sub-base mounting. The magnetic system and the Medium chamber are separated from one another by a separating diaphragm system.

The valve is fast acting and has a long service life, even when run dry.

Technical data	
<b>Orifice</b>	DN 2.0–4.0 mm
<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, FKM (EPDM on request)
<b>Medium</b>	
NBR	Neutral Medium such as compressed air, water, hydraulic oil
FKM	Hot air
EPDM (on request)	Oil and fat-free Medium
<b>Medium temperature</b>	
NBR	32°F to 176°F (0°C to +80°C)
FKM	32°F to 194°F (0°C to +90°C)
EPDM (on request)	-22°F to 194°F (-30°C to +90°C)
<b>Ambient temperature</b>	Max. 131°F (+55°C) (min. temperature see Medium temperature)
<b>Viscosity</b>	max. 37 mm <sup>2</sup> /s
<b>Voltage tolerance</b>	±10%
<b>Duty cycle</b>	100% continuous rating
<b>Manifold mounting</b>	Use reduced duty cycle or 5W coil
<b>Electrical connection</b>	Tag connector acc. to DIN EN 175301-803 Form A (previously DIN 43650) for cable plug Type 2508 (supplied as standard)
<b>Protection class</b>	IP 65 with cable plug
<b>Installation</b>	as required, preferably with actuator upright
<b>Response times</b>	
AC opening/closing [ms]	8-15
DC opening/closing [ms]	10-20

Power consumption			
Inrush		Hold (hot coil)	
AC [VA]	DC [W]	AC [VA/W]	DC [W]
30	8	15/8	8

Measured at valve outlet at 6 bar and 68 °F

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

Dimensions [mm]

Circuit function	1	2	3
A	P	A	-
B	-	B	P
C	P	A	R
D	R	B	P
E or T	P1	A	P2
F	A	P	B

The ports marked with 1, 2 and 3 are marked as in the configuration table, depending on the circuit function.

Circuit functions

The valves are fitted with different springs for a particular circuit function  
 When used in other circuit functions, the maximum operating pressure varies according to the following table.

Circuit function	Max. operating pressure [PSI] for valve use in other circuit function																	
	Orifice 2 [mm]						Orifice 3 [mm]						Orifice 4 [mm]					
	WW	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E
C	232	21	232	21	21	232	145	14.5	145	14.5	14.5	145	72	11.6	72	11.6	11.6	72
D	58	377	65	232	58	58	36	145	36	145	29	43	29	72	29	72	29	29
E or T	116	116	145	145	145	116	87	87	87	87	87	87	43	43	43	43	43	43
F	145	21	145	21	21	232	87	14.5	87	14.5	14.5	145	58	11.6	58	11.6	11.6	72

## Ordering chart for valves (other versions on request)

All valves with sub-base connection, manual override, body material stainless steel or brass

Circuit function	Orifice [mm]	Port connection	C <sub>v</sub> value water [GPM]	Pressure [PSI]	Body material	Seal material	Voltage/frequency [V/Hz]	Electrical classifications <sup>1)</sup>	Item no.	
C	2.0	Sub-base	0.09	0 - 174	Stainless steel	FKM	024/DC	UR/CSA	451 745	
			0.11		Stainless steel		120/60	UR/CSA	451 748	
			0.11		Stainless steel		240/60	UR/CSA	451 750	
			0.09		Brass		024/DC	-	450 831	
			0.11		Brass		120/60	UR/CSA	451 747	
			0.11		Brass		120/60	-	455 18	
	3.0	Sub-base	0.14	0 - 145	Stainless steel	FKM	024/DC	UR/CSA	451 751	
			0.17		Stainless steel		120/60	UR/CSA	460 133	
			0.14		Brass		024/DC	UR/CSA	450 498	
			0.17		Brass		120/60	UR/CSA	450 305	
			0.14		Brass		024/DC	-	450 829	
	4.0	Sub-base	0.17	0 - 72	Brass	FKM	024/DC	UR/CSA	458 995	
			0.21		Brass		120/60	UR/CSA	459 002	
	D	2.0	Sub-base	0.09	0 - 174	Stainless steel	FKM	024/DC	-	450 788
0.11				Stainless steel		120/60		UR/CSA	451 759	
0.09				Brass		024/DC		-	450 792	
0.11				Brass		120/60		UR/CSA	451 759	
0.11				Brass		240/60		UR/CSA	464 012	
0.11				Brass		120/60		-	453 374	
3.0		Sub-base	0.14	0 - 145	Brass	FKM	024/DC	-	450 830	
			0.17		Brass		120/60	UR/CSA	451 764	
E		2.0	Sub-base	0.09	0 - 145	Brass	FKM	120/60	UR/CSA	453 768
				0.11		Brass		240/60	UR/CSA	454 450
	3.0	Sub-base	0.14	0 - 87	Brass	FKM	024/DC	-	455 541	

<sup>1)</sup> UR is a UL recognized component

■ Vacuum versions available on request

### **i** Further versions on request



#### Materials

Seal materials EPDM, NBR, FKM



#### Approvals

Explosion protection ATEX, FM-Ex Div.1



#### Voltage

Non-standard voltages

#### Circuit function

A (normally closed, 2-way), B (normally opened, 2-way), F (distributing)



#### Additional

Impulsive version, optical or electrical feedback, further device combinations

**Ordering chart for flange valve manifolds and accessories**

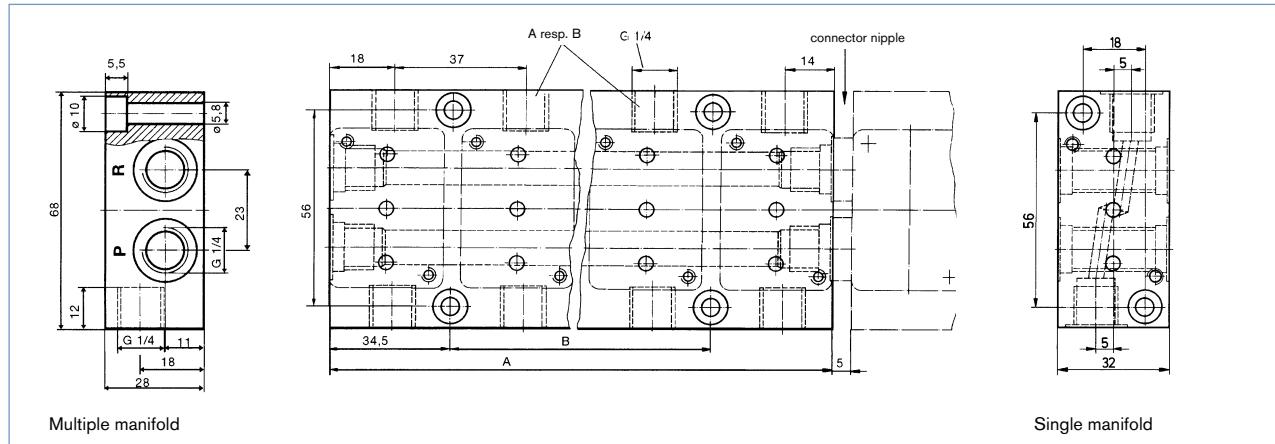
All manifolds made of anodised aluminium

Manifold	Length A [mm]	Hole spacing B [mm]	Item no.
1 valve	32	-	005 043
2 valves	69	-	005 045
3 valves	106	37	005 366
4 valves	143	74	005 294
5 valves	180	111	005 295
6 valves	217	148	005 296
7 valves	254	185	005 403
8 valves	291	222	006 074

Accessory parts		Item no.
Block for auxiliary manual operation, individual		013 372
Covering plate for unused valve positions		005 625

**Dimensions [mm]**



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