

2/2-Way



Advantages/Benefits

- ▶ Solvent joint, fusion spigot
- ▶ Normally open or closed
- ▶ Body material: PVC, PVDF
- ▶ Isolating diaphragm between the solenoid and fluid
- ▶ Silent operation and low water hammer
- ▶ Non-metallic valve internals
- ▶ Lockable manual override standard

Design/Function

Servo-assisted solenoid valve with diaphragm.

In the normally closed function, the spring action in the pilot valve diverts the fluid to pressurize the diaphragm from above and shuts the valve off.

When the pilot valve is energized the pressure above the diaphragm is relieved. The fluid pressure below the diaphragm then raises it and the valve opens.

The 3/2-way servo-assisted valve design ensures there is no fluid contact with metallic components.

The solenoid epoxy encapsulation efficiently dissipates the heat generated by the coil.

The union connection allows valves to be mounted or removed radially for a space-saving installation.

Applications

- Aggressive gases and liquids
- Water treatment
- Effluent treatment
- Electroplating
- Environmental technology
- Food and beverage bottling systems, pharmacy
- Chemical industry and systems engineering
- High-tech sectors, e.g. the production of semi-conductors
- Textile industry

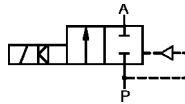
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Technical Data

Circuit Function

- A** 2/2-way valve,
normally closed,
with 3-way pilot servo-assistance



Body Material

Body and cover: PVC or PVDF
Valve internals: PVDF

Specifications

Orifice [inches]	C _v -Value Water [gpm]	Port Connection [NPT]	Pressure Range [PSI]	Weight	
				PVC [kg]	PVDF [kg]
9/16"	5.8	1/2"	7-85	1.43	1.54
3/4"	7.0	3/4"	7-85	1.43	1.54
1"	16.4	1"	7-85	2.64	2.86
1 1/4"	18.8	1 1/4"	7-85	2.64	2.86
1 1/2"	35.2	1 1/2"	7-85	4.84	5.72
2"	42.3	2"	7-85	4.84	5.72

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.
A minimum pressure differential of 7 PSI is required for complete opening and closing.

Operating Data (Valve)

Seal Materials/Fluids Handled/Temp.- Range

		PVC	PVDF
EPDM	Alkalis, acids up to medium concentration, alkaline washing and bleaching lyes	32°F to 122°F	32°F to 158°F
FPM (Viton)	Oxidizing acids, oxidizing substances, salt solutions, oil with additives	32°F to 122°F	32°F to 158°F
max. pH-Value		12	

For more detailed information see resistance chart at www.burkert-usa.com.

Max. ambient temperature PVC: 32°F to 104°F
PVDF: 32°F to 131°F

Max. viscosity approx. 21 mm²/s

Response times opening 0,1 - 0,8 s
closing 1 - 4 s

The response times have been measured at an operating pressure of 85 PSI with water. They are dependent upon the orifice and the circuit function of the valve, as well as the pressure and viscosity of the fluid handled. The valve is provided with lockable manual override.

Port connection PVC solvent joint to DIN 8063
20, 25, 32, 40, 50, 63 mm ø
PVDF fusion spigot
20, 25, 32, 40 mm ø

Operating Data (Actuator)

Operating voltage	AC 24, 120, 240, 50-60 Hz DC 24 V
Voltage tolerance	±10 %
Power consumption	AC 20 VA (inrush) 11 VA/5 W (hold) DC 5 W
Duty cycle	100 % continuously rated
Cycling rate	10 - 50 c.p.m.
Rating	IP 65 with cable plug Type 1051 (supplied as standard)

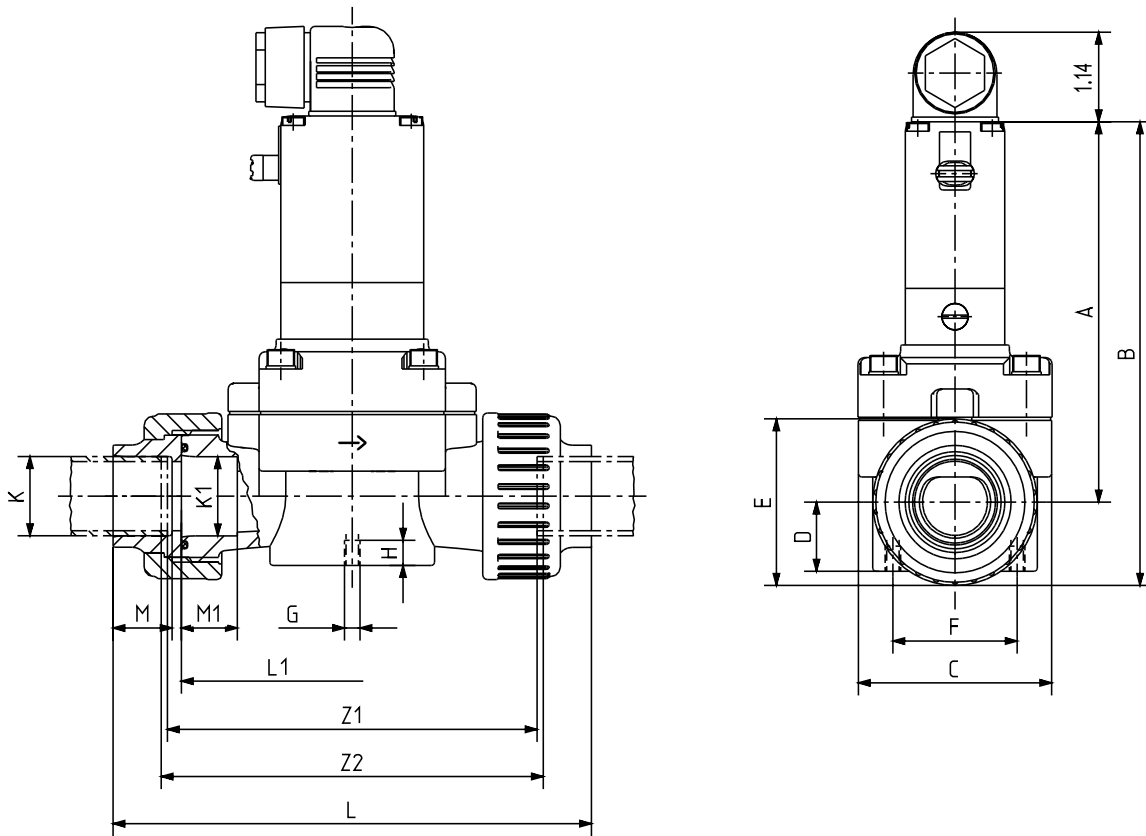
Installation/Accessories

Installation	as required
Electrical connection	cable plug for 7 mm ø cable (supplied as standard) Body material: Noryl

Solenoid Valve with Pivoted Armature For Aggressive Fluids

Type 142

Dimensions in mm



External pipe Ø	DN										PVC-version with solvent joint						PVDF-version with fusion spigot				
		A	B	C	D	E	F	G	H	L	L1	K	K1	M	M1	Z1	L	L1	K	M	Z2
2.48	2"	6.30	8.35	4.53	1.67	4.11	1.75	M8	.59	10.55	7.56	2.49	2.49	1.50	1.30	7.80	9.96	7.44	2.45	1.14	7.87
1.97	1 1/2"	6.30	8.35	4.53	1.67	4.11	1.75	M8	.59	10.00	7.56	1.98	-	1.22	-	7.80	9.65	7.44	1.94	.98	7.87
1.57	1 1/4"	5.37	6.87	3.35	1.22	2.99	1.75	M8	.59	7.80	5.55	1.58	1.58	1.02	.89	5.79	7.44	5.47	1.55	.87	5.90
1.26	1"	5.37	6.87	3.35	1.22	2.99	1.75	M8	.59	7.48	5.55	1.27	-	.87	-	5.79	7.28	5.47	1.24	.79	5.90
.98	3/4"	4.80	5.83	2.46	.87	2.05	1.57	M5	.31	6.06	4.33	.99	.99	.75	.71	4.57	5.94	4.29	.95	.71	4.72
.79	9/16"	4.80	5.83	2.46	.87	2.05	1.57	M5	.31	5.83	4.33	.80	-	.63	-	4.57	5.79	4.29	.76	.63	4.72

Pressure-Temperature-Diagram

