

General Description

2/2 way normally closed solenoid valve - series 5

Coupled diaphragm valve with servo assist and a nylon-encapsulated coil, opened by an electronic command. Recommended for general applications where high flow is required and where pressures may vary from 0 to 10 bar.

Typical applications include:

The delivery of liquids or compressed air with low head, vacuum or variable pressure such as water towers and treatment systems, chemical dosing and irrigation systems. One body and two diaphragm materials are available.

Technical specifications

Pressure range	AC 0*-10 Bar DC 0*-6 Bar G1/4-1/2 0*-2 Bar G3/4 & G1
Fluid temperature	nylon body (standard) - 5° to +80°C
Materials in contact	body - composite nylon/glass diaphragm - nitrile (standard) or viton actuator - s/s ASIS 300, 304, 400.
Setup position	any (preferable with solenoid upright)
Voltage variation	± 10% 10VA AC, 7W DC.
Connector	ISO 4400 2 poles + earth 4 positions 90°
Coil position	rotatable through 360°
Protection degree	IP65
Ambient temperature	-10° to +45°C
Duty rate	100% E.D.

* Valve requires a 0.1 Bar differential to fully open

IMPORTANT-

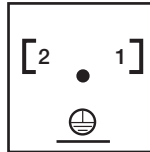
Chemical Resistance:

For specific information on chemical resistance of valve components to various Liquids and Gases, refer to the manufacturer or your distributor.

See overpage for applications warning. It is the responsibility of the user to determine suitability of the seat and body materials to the application.

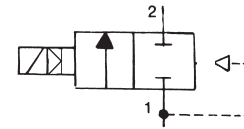


Connector Plug (with LED)
1 & 2 input terminals
(Non polarity conscious)



Earth Terminal

Circuit Function



2/2-way valve, normally closed.
2-way pilot with coupled/servo diaphragm.

How to Order



0 - Prefix for Vacuum Service
Series 5

Function
5 - normally closed

Connector Plug
(ISO) Square
0 - no plug
1 - c/w plug (standard) + LED

Port Size	Bsp	Npt
1/4"	2	A
3/8"	3	B
1/2"	4	C
3/4"	5	D
1"	6	(low flow)

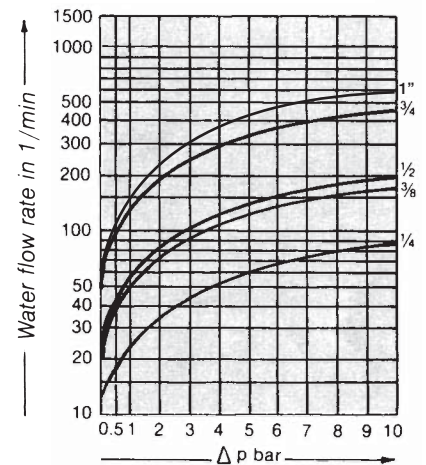
Optional Extras

- V - viton diaphragm
- S - surge suppressor plug
- D - AC/DC rectified plug
- T - time delay module (see EM brochure)

Voltage

- 1 - 240/50 Hz
- 2 - 110/50 Hz
- 3 - 48/50 Hz
- 4 - 32/50 Hz
- 5 - 24/50 Hz
- 8 - 24 vDC
- 9 - 48 vDC
- 10 - special voltage (eg 220/60Hz)

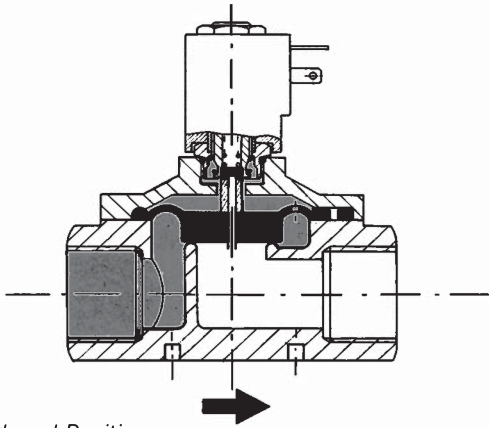
Flow of Water as a function of operating pressure (±10%)



Nominal Air Flow L/min. 1→ 2 at 6 Bar

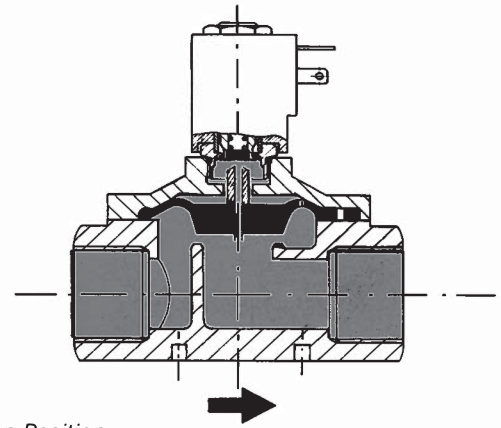
Port	1/4	3/8	1/2	3/4	1"
Flow	1500	2150	2500	5500	5500

Principle of Operation



Closed Position

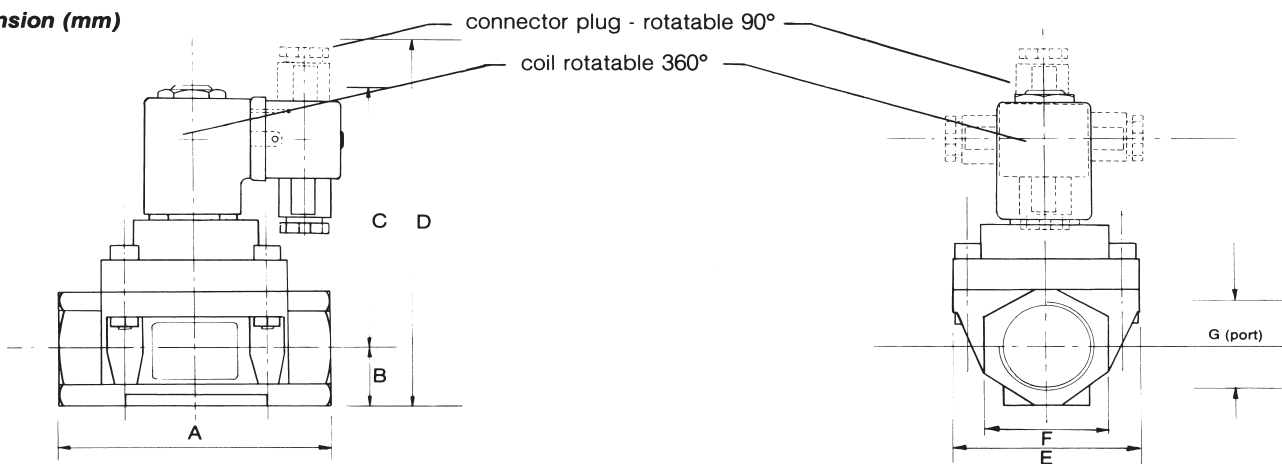
With no supply pressure and the valve de-energised, spring force from the armature holds the valve closed. As the supply pressure is increased, pressure builds up on top of the diaphragm via the bleed hole. This force, acting on the larger effective area, holds the valve closed (in conjunction with the armature spring).



Open Position:

When energised with no supply pressure, the armature lifts allowing the pre-loaded diaphragm to lift, opening the valve. When supply pressure is applied, pressure above the diaphragm is relieved via the open pilot gallery. The fluid pressure below assists in holding the diaphragm open.

Dimension (mm)



G Port BSP	A	B	C	D	E	F
1/4	73	15	72	100	48	29
3/8	73	15	72	100	48	29
1/2	73	15	72	100	48	29
3/4	105	24	95	109	88	41
1"	105	24	95	109	88	41

Maximum Torque Settings For Pipe & Fitting In Ports 1 & 2

- 1/4" 5Nm
- 3/8" 15Nm
- 1/2" 20Nm
- 3/4" 30Nm
- 1" 30Nm

Armature guide tube 10Nm

We recommend the use of Loctite 569 or equivalent on all plastic thread ports.



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WARNING
 These products are intended for use in industrial applications only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data' and in our individual 'Series' data sheets. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult Process Systems Pty Ltd.

Through misuse, age, or malfunction, components used in industrial valve applications can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in industrial valve applications and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. **System designers must provide a warning to the user in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings or specifications found in instruction sheets or labels packed or attached and shipped with the products. Our policy is one of continuous research and development. We therefore reserve the right to amend without notice the specifications given in this document or our individual 'Series' data sheets.

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