

## Solenoid Valve - Model P - Pilot Series - 1/2" - 4" 2/2 Normally Closed and Normally Open



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## Solenoid Valve - 2/2 - Normally Closed or Normally Open

### Benefits & Features

- 0.5-12bar. Special version 0.5-20bar
- Large internal orifice for high flow applications
- Corrosion resistant 316 stainless steel
- Air, water, chemical, gases, oil, diesel, kerosene, LPG
- Manual override option
- Anti-water hammer option
- IP65, IP68 safe area



**1/2" - 3"**

### Specification

<b>Configuration</b>	Pilot operated diaphragm design
<b>Port Sizes</b>	½"-4" BSP/NPT or flanged
<b>Orifice</b>	see table below
<b>Kv</b>	see table below
<b>Body</b>	304 or 316 stainless steel
<b>Media</b>	Air, water, chemical, gases, oil, diesel, kerosene, LPG. Subject to material compatibility
<b>Pressure ranges</b>	see table below
<b>Seals</b>	NBR (-30°C to +90°C), EPDM (-10°C to +140°C), VITON (-10°C to +180°C)

### Technical Data - Standard model

Model	Body Material	Port	Orifice MM	Min.	Max. Operating Pressures Bar		Kv m3/Hr
					AC	DC	
PCN28	CF8/CF8M	½"	17	0.5	12	12	3.2
PCN38	CF8/CF8M	¾"	20	0.5	12	12	5
PCN48	CF8/CF8M	1"	25	0.5	12	12	8.2
PCN58	CF8/CF8M	1 ¼"	34	0.5	12	12	12.2
PCN68	CF8/CF8M	1 ½"	36	0.5	12	12	17.1
PCN88	CF8/CF8M	2"	48	0.5	12	12	29.9
PCN96	CF8/CF8M	2 ½"	60	0.3	10	10	43.5
PCNA6	CF8/CF8M	3"	72	0.3	10	10	64.5
PCNB6	CF8/CF8M	4"	98	0.3	10	10	165



**4"**

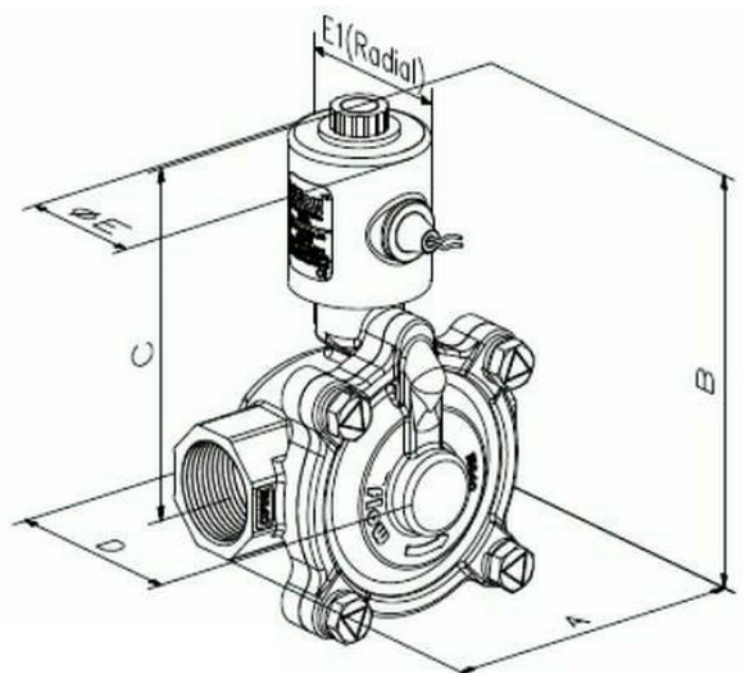
## Solenoid Valve - Normally Closed or Normally Open

### Technical Data - high pressure model

Model	Body Material	Port	Orifice MM	Min.	Max. Operating Pressures Bar		Kv m3/Hr
					AC	DC	
P 28	CF8/CF8M	½"	17	0.5	12	12	3.2
P 38	CF8/CF8M	¾"	20	0.5	12	12	5
P 48	CF8/CF8M	1"	25	0.5	12	12	8.2
P 58	CF8/CF8M	1 ¼"	34	0.5	12	12	12.2
P 68	CF8/CF8M	1 ½"	36	0.5	12	12	17.1
P 88	CF8/CF8M	2"	48	0.5	12	12	29.9
P 96	CF8/CF8M	2 ½"	60	0.3	10	10	43.5
P A6	CF8/CF8M	3"	72	0.3	10	10	64.5
P B6	CF8/CF8M	4"	98	0.3	10	10	165

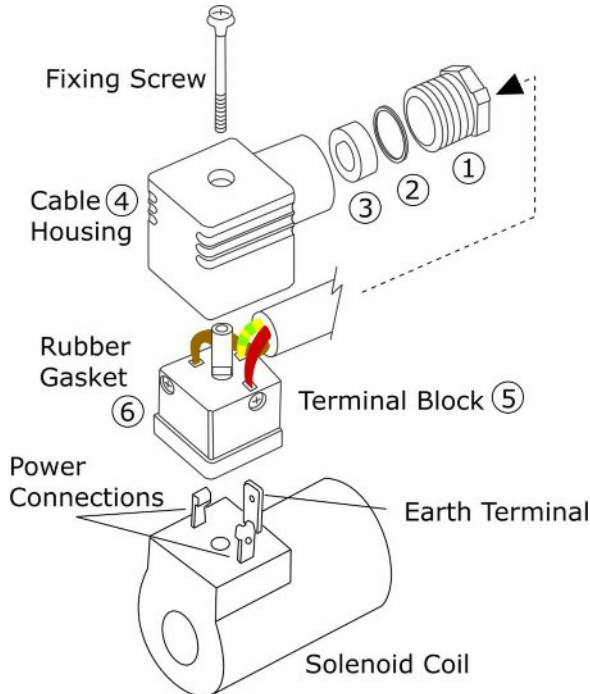
### Dimensions

Model	Port Size	Dimensions mm					
		A	B	C	D	E	E1
P 28	½"	73	127	99	50	44	58
P 38	¾"	81	136	103	59	44	58
P 48	1"	104	152	112	65	44	58
P 58	1 ¼"	108	172	116	90	44	58
P 68	1 ½"	108	172	116	90	44	58
P 88	2"	132	192	126	100	44	58
P 96	2 ½"	166	212	140	129	44	58
P A6	3"	192	237	152	142	44	58





DIN electrical socket connectors to protect solenoid coil terminals and wiring.



### Section 1: DIN Connector Assembly

- Insert the electrical power cable through the gland assembly (1,2,3)
- Push the cable through cable housing (4)
- Connect power and earth cables to terminal block 5
- Push terminal block (5) backwards, inside cable housing (4)
- Place rubber gasket (6) on terminal block (5) front face
- Push terminal block onto solenoid coil terminals
- Push fixing screw through complete assembly
- Tighten fixing screw with small screwdriver
- Do not over tighten
- Tighten cable gland (1,2,3) by hand

### Section 2: How to install Solenoid Valves

Solenoid Valves can normally be installed and operate in any orientation. However, certain models are designed to operate in horizontal installations. Please contact Red Dragon for further information.

#### Installation Procedure:

Check that the Solenoid Valve is the correct product ordered for the application:

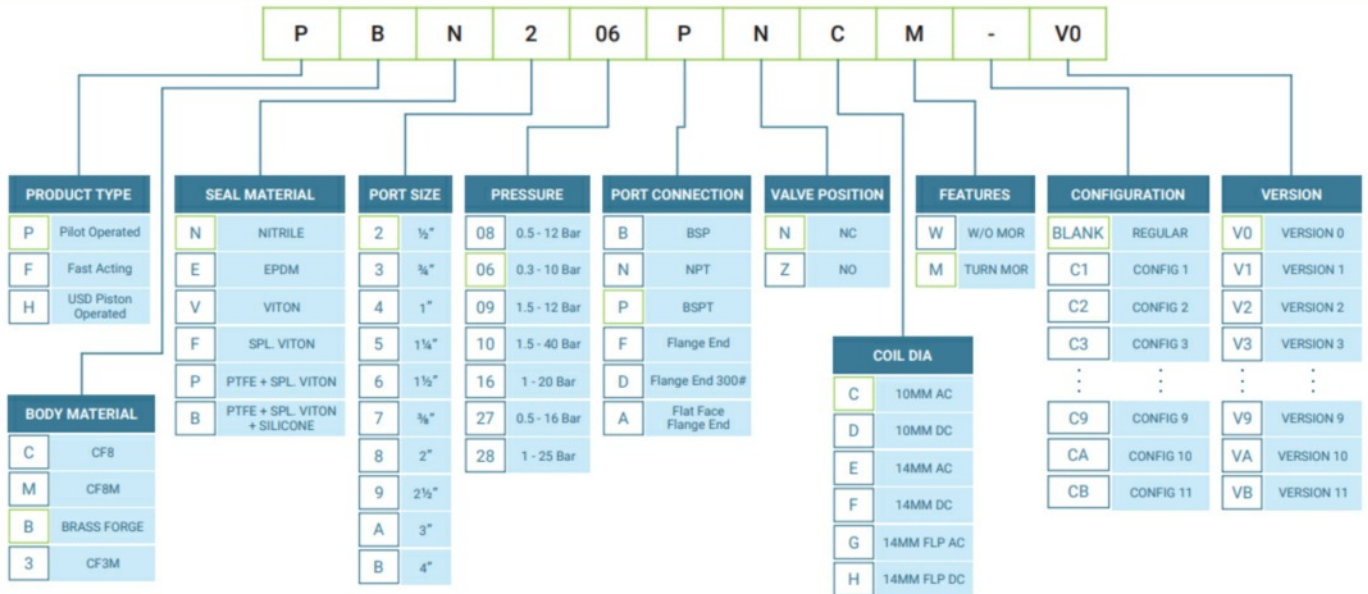
- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc. Leave until cool/safe.
- Insert the valve onto the pipe, ensuring that the flow direction is observed.....IN for incoming media, or an arrow stamped on the valve body.
- Ensure that the pipe connections are free from burrs or loose pipe thread tape
- Tighten all pipe joints
- Connect electrical power supply via DIN electrical socket connector, as detailed in section 1
- Ensure that DIN connector is properly connected to solenoid coil and the gasket is installed correctly
- Apply media pressure and check for leaks

### Section 3: Maintenance Procedure for Solenoid Valves

In the unlikely event of a valve malfunction, or routine maintenance, follow these instructions:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc.
- Remove the solenoid coil by unscrewing the coil retention nut anti-clockwise
- Remove the coil tube stem by unscrewing anti-clockwise
- Carefully remove the plunger assembly (inside the coil stem)
- Check the plunger assembly for damage or worn seals
- Check the face inside the coil stem for foreign particles that could prevent correct operation
- For Pilot Diaphragm Solenoid Valves: remove the top cover housing and check the diaphragm for damage and blocked transfer port.
- Re-assemble the valve in reverse order, ensuring that all parts are cleaned and assembled correctly

## PILOT OPERATED SOLENOID VALVE MODEL IDENTIFICATION CHART



**PBN206PNCMV0**  
 ½" PILOT OPERATED DIAPHRAGM- BRASS FORGE-NITRILE-0.3 TO 10 Bar-BSPT-NC-10MM AC-MOR