

## Solenoid Valve - 2/2 - Normally Open - Position Feedback

### Benefits & Features

- Position feedback switch with LED indicator, 2m cable
- Sensor working voltage: DC12-24
- Sensor switch current consumption: ≤15mA, Load current 200mA
- Suitable for water, liquids, air etc.
- Media temperature: -10°C to +70°C
- Two way normally open, lift assisted pilot
- Brass or 304 stainless steel body
- NBR, VITON or EPDM seals
- IP65 protection (coil), IP68 (position switch)
- #410 solenoid coil, 220VAC, #510 solenoid coil 24VDC



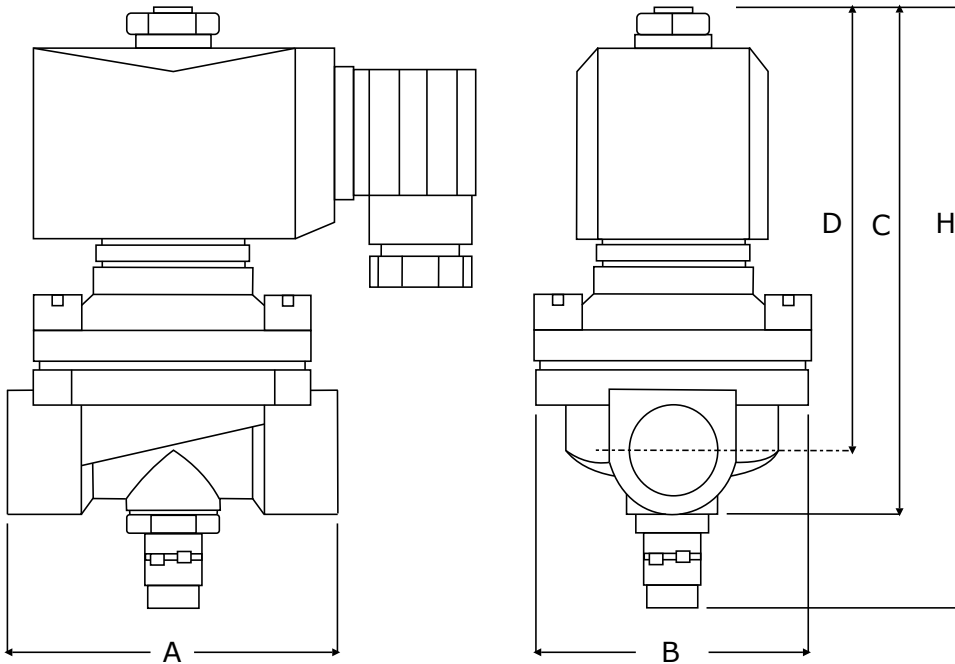
### Specification

<b>Configuration</b>	Pilot operated lift assisted design
<b>Port Sizes</b>	1/2" to 2" BSP, 2 1/2" - 4" Cast Iron flanged
<b>Orifice</b>	see table below
<b>Cv</b>	see table below
<b>Body</b>	Brass
<b>Media</b>	Air, water, liquids etc. Subject to material compatibility
<b>Pressure ranges</b>	0 - 6 Bar
<b>Seals</b>	NBR, VITON or EPDM -10 to +70°C
<b>Voltage</b>	#410 solenoid coil 220VAC. #510 solenoid coil 24VDC Other voltages upon request

### Technical Data

	A	B	C	D	Orifice mm	Min . /Max. Operating Differential Pressures. BAR		Cv Flow Factor	
						Normally Open			
						220VAC	24VDC		
BX42	15	F		P	1/2"	15	0-6 bar	0-6 bar	4.8
BX42	20	H		P	3/4"	20	0-6 bar	0-6 bar	7.6
BX42	25	L		P	1"	25	0-6 bar	0-6 bar	12
BX42	32	N		P	1 1/4"	32	0-6 bar	0-6 bar	24
BX42	40	O		P	1 1/2"	40	0-6 bar	0-6 bar	29
BX42	50	P		P	2"	50	0-6 bar	0-6 bar	48
BX42	65	FL25		P	Cast Iron Flange	65	0-6 bar	0-6 bar	52
BX42	80	FL3		P		80	0-6 bar	0-6 bar	82
BX42	100	FL4		P		100	0-6 bar	0-6 bar	128

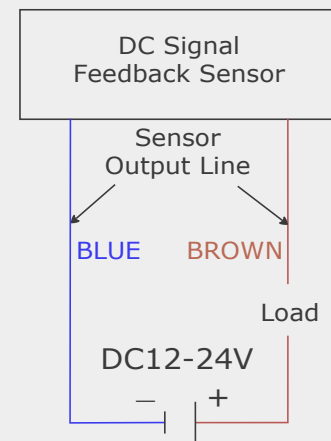
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### Dimensions mm

Port Size	Orifice mm	Dimensions mm				
		A	B	C	D	H
1/2"	15	68	56	105	91	140
3/4"	20	73	56	111	95	140
1"	25	100	74	124	103	140
1 1/4"	32	110	85	154	129	165
1 1/2"	40	120	90	162	134	180
2"	50	154	115	185	151	200
Cast Iron Flange	65	259	185	277	185	265
	80	278	200	289	189	275
	100	350	220	316	206	285

### Position Switch Electrical Wiring



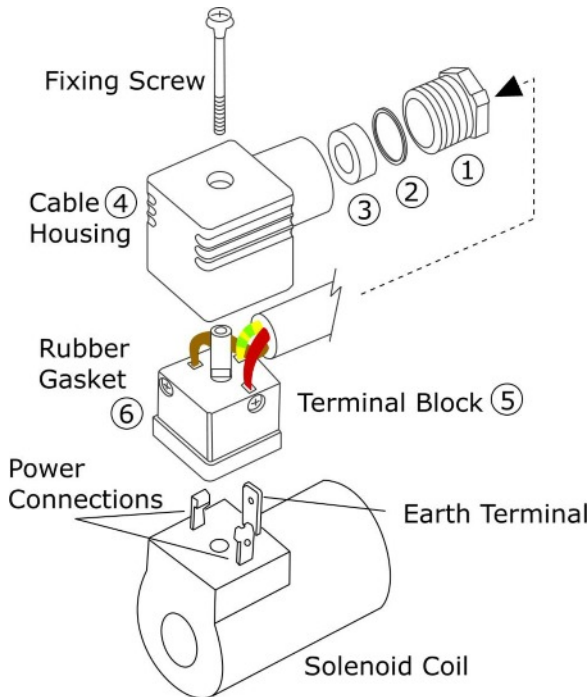
DC signal feedback device External circuit diagram

Current consumption:  $\leq 15\text{mA}$   
Load current consumption: 200mA

### Order Codes

A	Body	B	Port	C	Seals	D	Protection		
C	Cast Iron*	F	1/2" BSP	H	3/4" BSP	0	NBR	P	IP65 Safe Area
H	304 stainless steel	L	1" BSP	N	1 1/4" BSP	1	VITON		
T	Brass	O	1 1/2" BSP	P	2" BSP	6	EPDM		
	* 2 1/2", 3" and 4"	FL25	DN65	FL3	DN80				
		FL4	DN100						

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