

Solenoid Valve - 2/2 - Cryogenics & Oxygen - Normally Closed

Benefits & Features

- Liquid nitrogen, liquid oxygen
- Ambient temperature: -196°C to +65°C
- Working pressure: 0-8bar
- Direct acting, two way normally closed
- Large internal orifice for high flow applications
- Valve body materials: 304 Stainless Steel
- IP54 protection

Specification

Configuration	Direct acting
Port Sizes	1/4", 3/8", 1/2", 3/4"
Orifice	see table below
Cv	see table below
Body	304 Stainless Steel
Media	Liquid nitrogen or liquid oxygen
Pressure ranges	See data tables below
Seals	PCTFE
Voltage	220V 106/5VA, AC110V 85/5VA, DC 24V 54/8W



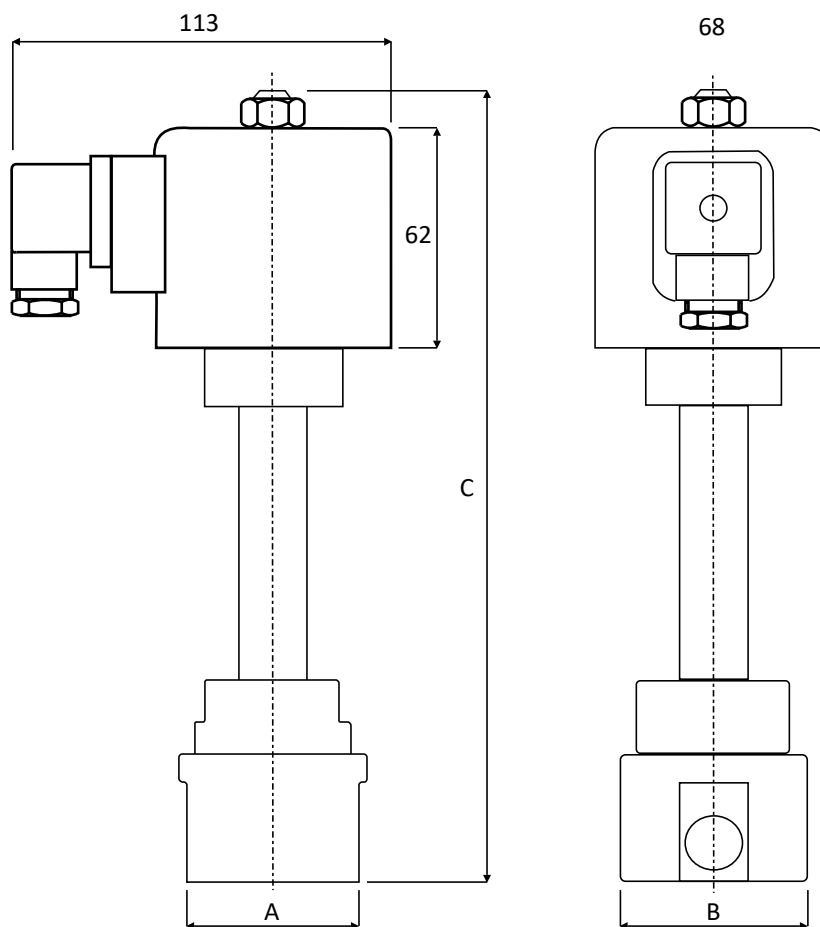
Technical Data

							Orifice mm	Min . /Max. Operating Differential Pressures. BAR				Cv Flow Factor
								Min.	Maximum AC		Maximum DC	
									110, 220	24	24	
RX42	A	60	B	C	D	¼"	6	0	8	8	8	0.7
RX42	H	80	C/D	3	P	¼"	8	0	8	8	8	0.9
RX42	H	10	E/T	3	P	⅜"	10	0	8	8	8	3.5
RX42	H	15	F/G	3	P	½"	15	0.3	8	8	8	4.5
RX42	H	20	H/I	3	P	¾"	20	0.3	8	8	8	7.5

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Dimensions

Port Size	Dimensions mm		
	A	B	C
1/4"	50	54	225
1/4"	50	54	225
3/8"	50	54	230
1/2"	50	75	242
3/4"	50	75	248



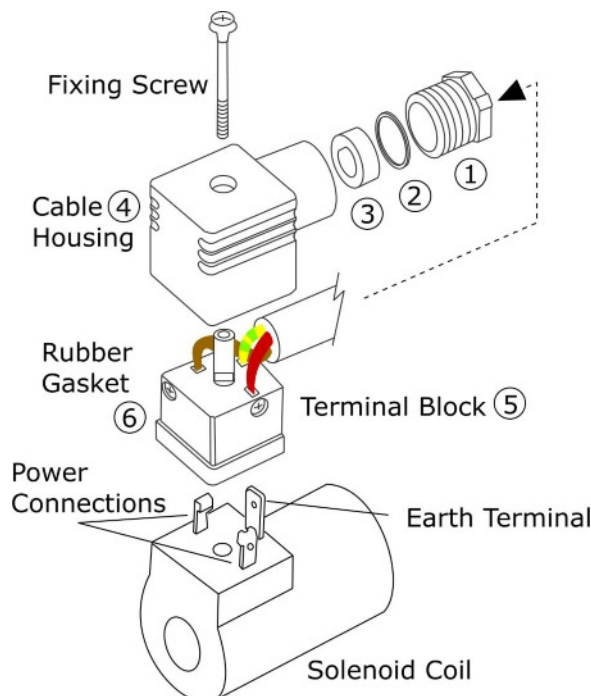
Order Codes

A	Body	B	Port	C	Seals (fluid temp. min / max)	D	Protection
H	304 Stainless Steel	C	1/4" BSP	D	1/4" NPT	3	PCTFE (-196°C to + 65°C)
		E	3/8" BSP	T	3/8" NPT		
		F	1/2" BSP	G	1/2" NPT		
		H	3/4" BSP	I	3/4" NPT		

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