

Miniature Solenoid Valve - High Cycle - Medical Ventilators



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Proportional Control - Miniature Solenoid Valve

General Features

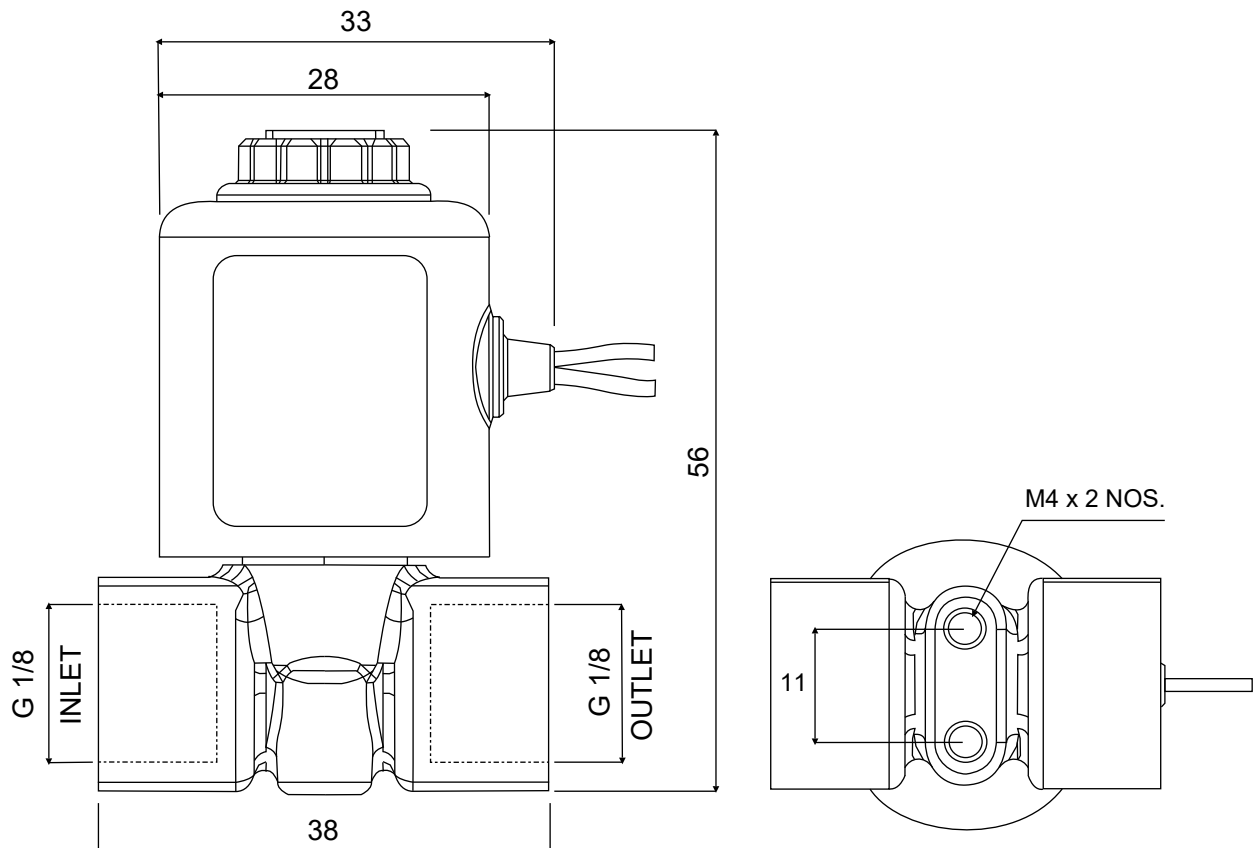
- Two Way Normally Closed Proportional Solenoid Valve
- 1/8" BSP female ports
- Pressure range: 0 to 145psi
- Response: <30 ms cycling
- Body material: Brass
- Reliability: 25 million
- Seals: VITON
- Media: Air, Oxygen
- Operating Environment: 0 to +70°C
- Storage temperature: -40°C to +70°C
- Weight: 146g



Electrical

- Power: 12VDC 3W
- Electrical Termination: 2 core lead wire

Dimensions mm





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. See figure (2) below for best practice.

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. We suggest using a filter on the inlet in order to protect the valve (fig.3)
- Ensure that the pipe connections are free from burrs or loose pipe thread tape
- Tighten all pipe joints using suitably sized spanners (fig.4)
- Connect electrical power supply via DIN electrical socket connector, as detailed on page 5
- Ensure that DIN connector is properly connected to solenoid coil and the gasket is installed correctly
- Apply media pressure and check for leaks

Figure 2: Solenoid Valve Orientation

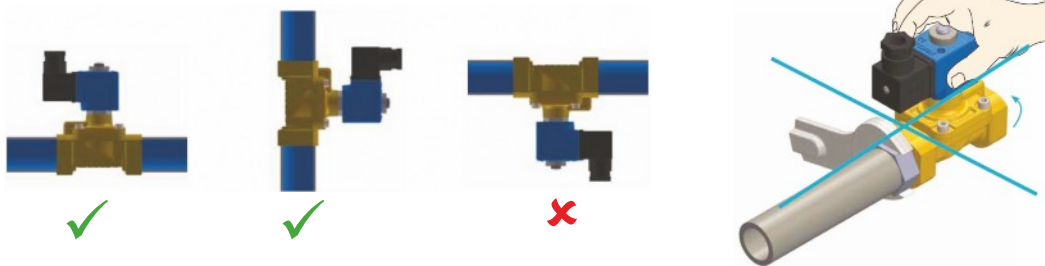
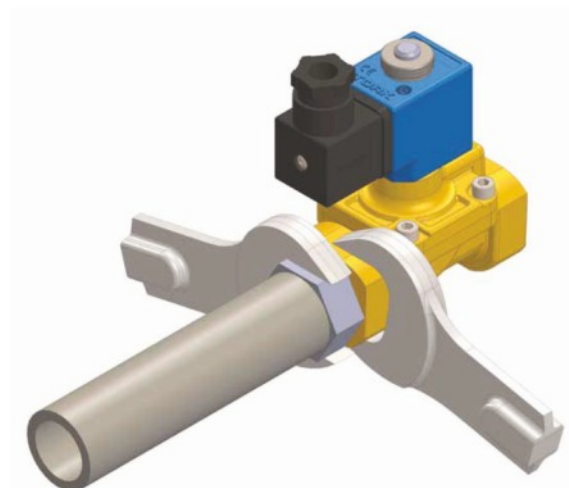


Figure 3: Solenoid Valve Filter



Figure 4: Solenoid Valve Pipe Mounting





GENERAL Maintenance Procedures 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.
- For IP65 safe area valves: Remove the solenoid coil by unscrewing the coil retention nut anti-clockwise (fig. 1)
- For Explosion Proof solenoid valves: Loosen then remove the retaining nut that passes through the explosion proof housing (fig. 2)
- 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

Fig. 1



Fig. 2

