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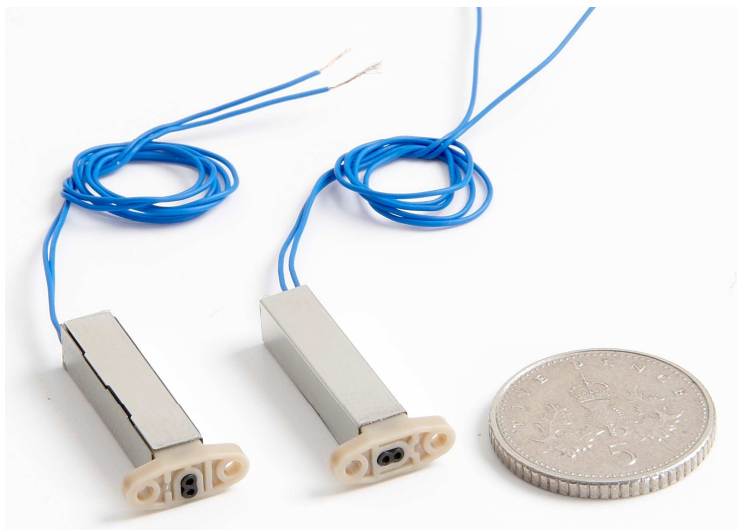
The Dolomite Centre Limited
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Company No. 05640084

INFORMATION SHEET

Part name	Micro isolation solenoid valve	Part number	3000173 3000174 3000175 3000176
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Description

The micro isolation solenoid valve is ideal for integration into microfluidic systems due its very small size and ultra low internal volume of 1.1 μ l (for valve types 3000173 and 3000174). The miniature solenoid is 4.2 mm square, enabling valve mounting area and flow path lengths to be minimised. The perfluoroelastomer diaphragm and PEEK body ensure that the fluid only comes into contact with inert materials. There are manifold mount and tube barb connection options.



3000173 ports at right angles to mounting holes

3000174 ports aligned with mounting holes



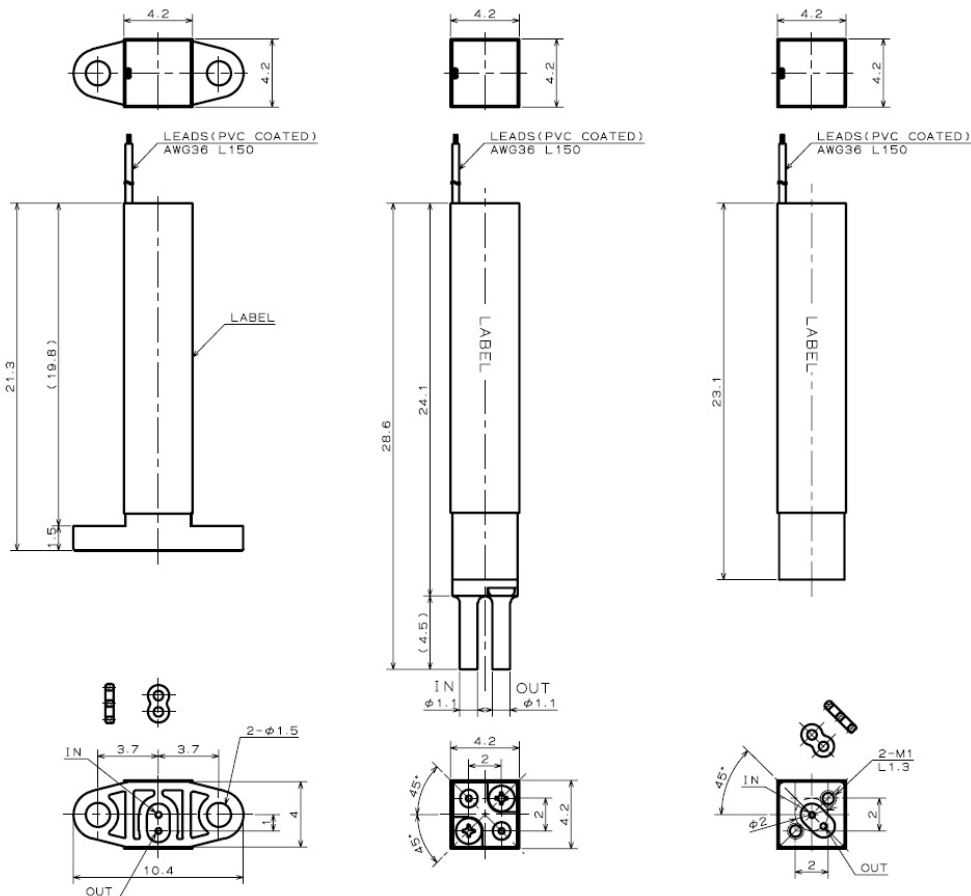
3000175 tube barb

Benefits

- Very small footprint and package size
- Ultra low internal volume
- Excellent chemical resistance (wetted materials PEEK and perfluoroelastomer)
- Various mounting and tube connection options available
- Pressure range up to 1 bar
- Light weight
- Ideal for integration into microfluidic systems

	Micro valve specification	3000173	3000174	3000175	3000176
1	Valve Type	2-way N.C. (normally closed)			
2	Orifice Diameter	0.4 mm			
3	Port Connection	Gasket		Tube barb	Gasket
4	Internal Volume	1.1 µl		4.3 µl	1.5 µl
5	Operating Pressure Range	IN: 0 – 1 bar OUT: 0 – 0.5 bar (max. supply pressure on OUT port)			
6	Compatible Fluids	All fluids compatible with PEEK & perfluoroelastomer Fluids free of particulate			
7	Fluid Temp. Range	10 – 50 °C			
8	Ambient Temp. Range	10 – 50 °C			
9	Voltage for Actuation	5V DC			
10	Power Consumption	1 W			
11	Duty Cycle	Intermittent, ED = 40% (on time)			
12	Max. Energising Time	1.5 minutes			
13	Coil Temp. Increase	Max 80 °C from ambient temperature (when energised for 1.5 minutes at rated voltage)			
14	Weight	1.6g			
15	Diaphragm Material	Perfluoroelastomer			
16	Gasket Material	Perfluoroelastomer			
17	Body Material	PEEK			

Geometry



3000173 Dimensions
(3000174 ports at 90°)

3000175 Dimensions

3000176 Dimensions