

248D

Solenoid Control Valve



The 248D control valve is a modified solenoid valve that when supplied with a controlling current will modulate the flow of gas. When used with an MKS controller and appropriate flow sensor, the 248D valve modulates gas flow while maintaining accurate and precise pressure or flow.

The valve seat connected to the armature is lifted away from the adjustable orifice as increasing current is applied to the solenoid. Two spiral springs center the armature within the valve body and oppose the magnetic lifting force. These springs minimize friction and hysteresis,

major causes of poor control performance. With a 1249 control valve driver to provide the necessary drive signal to operate the solenoid valve, the 248D valve can be used for either pressure or flow control.

The orifice of the 248D valve is easily adjusted or replaced without special tools. Adjustment may be required to eliminate leakage across the valve resulting from normal operational wear. Replacement is required when wear is excessive or to change the flow range of the valve.

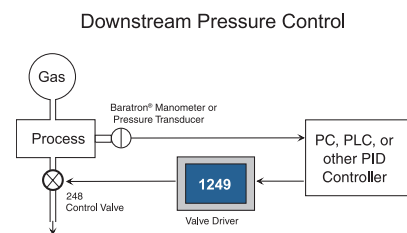
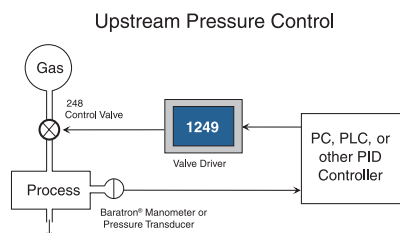
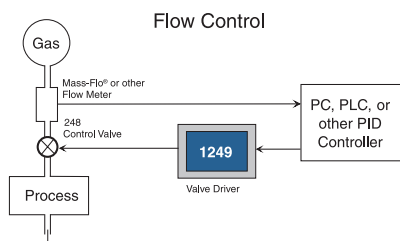
Product Features

- Easily adjustable and replaceable orifice
- Variety of fittings and elastomer seals
- Wide range of Full Scale flows



Key Benefits

- Easily adjusted or replaced without special tools
- Modulates gas flow while maintaining precise pressure or flow



Specifications

Full Scale Flow Ranges	10 - 50,000 sccm
Minimum Controllable Flow	<ul style="list-style-type: none"> • 0.1% of Full Scale (>100 sccm) • 0.2% of Full Scale (<100 sccm)
Leak Integrity	<p>External (scc/sec/Helium) Through closed Valve</p> <ul style="list-style-type: none"> • <1 x 10⁻⁹ • <1 x 10⁻⁵ scc/sec/He (at 1 atmosphere differential)
Wetted Materials	316 S.S., nickel, Viton®, Elgiloy®
Fitting	<p>Standard 1/4" Swagelok®</p> <p>Optional 4 VCR® or 4 VCO®</p>
Operating Temperature Range	-10°C to +60°C
Compliance¹	CE

¹For CE compliance an overall metal braided shielded cable, properly grounded at both ends, must be used.

Ordering Information

Ordering Code Example: 0248D-01000SV	Code	Configuration
248D Control Valve	0248D	0248D
Full Scale Range		
10 sccm	00010	01000
20 sccm	00020	
50 sccm	00050	
100 sccm	00100	
200 sccm	00200	
500 sccm	00500	
1000 sccm	01000	
2000 sccm	02000	
5000 sccm	05000	
10000 sccm	10000	
20000 sccm	20000	
50000 sccm	50000	
Fitting		
1/4" Swagelok	S	S
Swagelok 4 VCR	R	
Swagelok 4 VCO	G	
Seal Material		
Viton	V	V
Neoprene	N	
Buna-N	B	
Kalrez	K	