



# Valve Solutions

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## 1249B

### SOLENOID CONTROL VALVE DRIVER

The 1249 Control Valve Driver provides the drive signal required to operate the 148 and 248 Proportioning Solenoid Valves used for pressure or flow control. It is intended for use with PC's, PLC's, or other controllers that provide the necessary PID control functions, but which don't have the current output necessary to drive these valves. (Open-loop control of these valves, i.e., no PID control, is not recommended)

The 1249 can be powered by common power supplies of  $\pm 15$  VDC or 24 VDC, consuming less than one Watt of power (not including the valve). It accepts control signal inputs of 0-5 VDC, 0-10 VDC, or 4-20 mA from a PC, PLC, or another system controller. The output signal of the 1249 is tailored to match the requirements of the 148 or 248 Proportioning Control Valve. The 1249 may also be used to drive a 154 Valve if the power applied to the 1249 is  $\pm 15$  VDC or +30 VDC. Consult Applications Engineering at (800) 227-8766 for details.

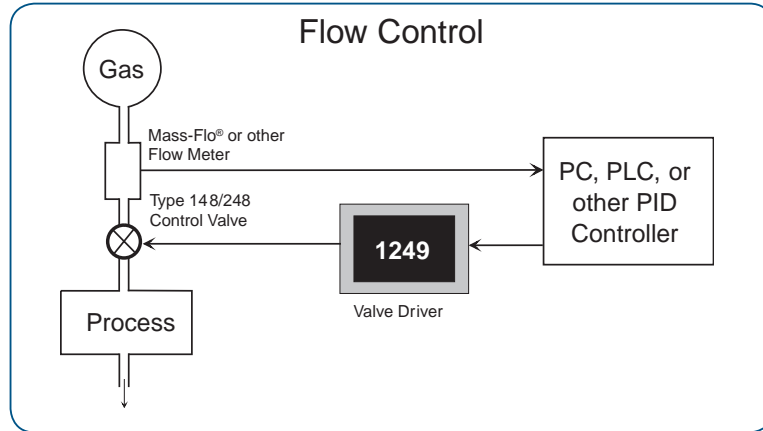
The 1249 provides a convenient and economical solution for pressure or flow control where the necessary power and PID control functions are already available in the system.

### Features & Benefits

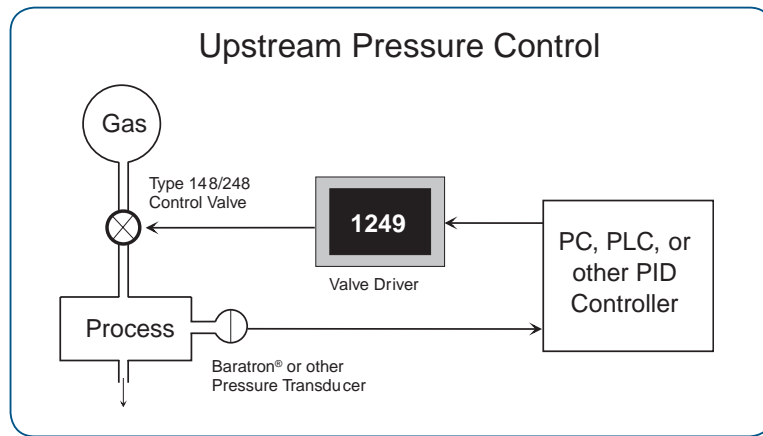
- Enables PC, PLC, or other user-supplied control algorithm to operate a proportioning control valve
- Makes use of existing system capabilities to lower the cost of pressure or flow control
- Flexible power and signal requirements
- Small package can be mounted wherever space is available



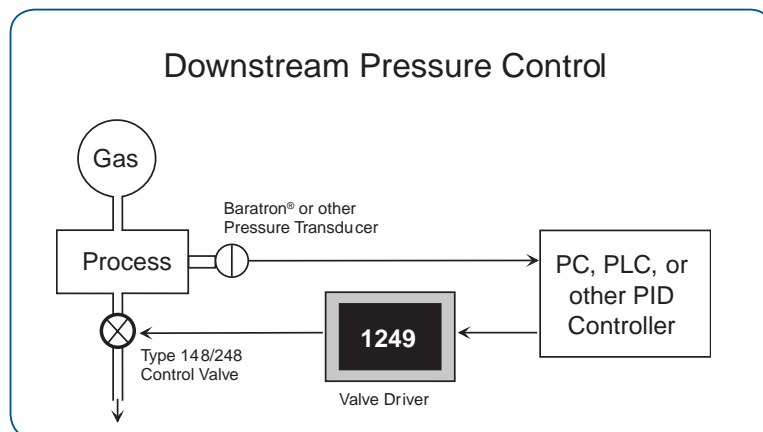
## Application Schematics



*Flow Control application for 1249*



*Upstream Pressure Control application for 1249*



*Downstream Pressure Control application for 1249*



# Specifications

## 1249 Solenoid Control Valve Driver

<b>Power Input Required</b>	±15 VDC ±5% @ 330 mA max. or 24 VDC ±10% @ 270 mA max.(including valve)
<b>Input Signal</b> Analog Digital	0-5 VDC, 0-10 VDC or 4-20 mA (user selectable) TTL or open collector overrides to open or close valve
<b>Output Signal</b>	0-300 mA
<b>Input Connector/Output Connector</b>	15-pin Type "D" male/9-pin Type "D" female
<b>Indicators</b>	Valve open/valve closed LED
<b>Adjustments</b>	Manual bias pot
<b>Dimensions</b>	1.13"H x 3.28"L x 4.12"D (28.7 mm x 83.3 mm x 104.6 mm)
<b>Operating Temperature Range</b>	0°C to +50°C
<b>Operating Humidity Range</b>	0% to 95% RH non-condensing
<b>Compliance</b>	CE

## 148JA Compatible Control Valve

<b>Full Scale Flow Ranges</b>	10 - 30,000 sccm
<b>Minimum Controllable Flow</b>	2% F.S.
<b>Closed Leakage</b> Standard	1% of F.S.
<b>Wetted Materials</b> Standard	316 S.S., nickel, Teflon®
<b>Fittings</b> Standard	4 VCR® male compatible
<b>Operating Temperature Range</b>	15°C to +150°C

## 248D Compatible Control Valve

<b>Full Scale Flow Ranges</b>	10 - 10,000 sccm
<b>Minimum Controllable Flow</b>	0.1% of F.S. (≥100 sccm) 0.2% of F.S. (<100 sccm)
<b>Closed Leakage</b> Standard	<1 × 10 <sup>-5</sup> scc/sec He (at 1 atmosphere differential)
<b>Wetted Materials</b> Standard Optional Seat Material	316 S.S., nickel, Viton® Neoprene®, Buna-N, Kalrez®
<b>Fittings</b> Standard	¼" Swagelok® (4 VCR optional)
<b>Operating Temperature Range</b>	-10°C to +60°C

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



# Ordering Information

## 1249B

Ordering Code Example: 1249B	Code	Configuration
1249 Solenoid Control Valve Driver	1249B	1249B

## 148J

Ordering Code Example: 148JA11CR1M	Code	Configuration
148JA Control Valve	148JA	148JA

### Full Scale Range

10 sccm	11C	11C
20 sccm	21C	
50 sccm	51C	
100 sccm	12C	
200 sccm	22C	
500 sccm	52C	
1000 sccm	13C	
2000 sccm	23C	
5000 sccm	53C	
10,000 sccm	14C	
20,000 sccm	24C	
30,000 sccm	34C	

### Fittings

Swagelok 4 VCR	R	R
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### Valve

Normally closed	1	1
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### Valve Seal Material

Metal	M	M
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## 248D

Ordering Code Example: 248D00010SV	Code	Configuration
248D Control Valve	0248D	0248D

### Full Scale Range

10 sccm	00010	00010
20 sccm	00020	
50 sccm	00050	
100 sccm	00100	
200 sccm	00020	
500 sccm	00050	
1000 sccm	01000	
2000 sccm	02000	
5000 sccm	05000	
10,000 sccm	10000	

### Fittings

Swagelok	S (standard)	S
Swagelok 4 VCR	R (optional)	

### Seal Material

Viton	V (standard)	V
Neoprene	N (optional)	
Buna-N	B (optional)	
Kalrez	K (optional)	



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