

VSO-HP High Performance Pressure Controller

Pressure Controllers



Used in analytical and OEM instrument applications, the VSO-HP delivers integral closed loop proportional control with the highest level of accuracy and stability.

With an extra internal dump valve, the VSO-HP offers rapid depressurization, which results in a fast response time and has an optional external sensor for expertly controlling pressure in required applications.

The VSO-HP can be configured to control pressure or flow, replacing manual regulators, flow controllers, and needle valves. This product uses Parker Hannifin's patented VSO® proportional valve and offers precise motion control with Parker pneumatic cylinders, such as the Series SRX.

Typical applications include:

- Gas over liquid flow control
- Microfluidic flow control
- Hydro-dynamic focusing
- Liquid dispensing

Features

- Stable pressure control with minimal thermal drift
- Rapid depressurization
- High accuracy; high repeatability
- Low power consumption
- Optional 5 VDC supply output
- Configurable for pressure control or flow control
- External pressure sensor capability
- Silent operation; long life
- Analog control

Physical Properties

Valve Technology:
Thermally compensated proportional valve, digital dump valve
Media:
Non-corrosive gases
Operating Environment:
0 to 50°C (32 to 131°F)
Storage Temperature:
-40 to 65°C (-40 to 131°F)
Length:
1.52 in (39 mm)
Width:
1.66 in (42 mm)
Height:
2.79 in (71 mm)
Porting:
10-32 female ports

Electrical

Power:
24 VDC + 10%
Input Control Signal:
0-5 VDC standard
Monitor Output Voltage:
0-5 volts
Current Requirement:
<400 mA
Electrical Connector:
6 pin miniature interface cable included

*Contact factory for details.

Performance Characteristics

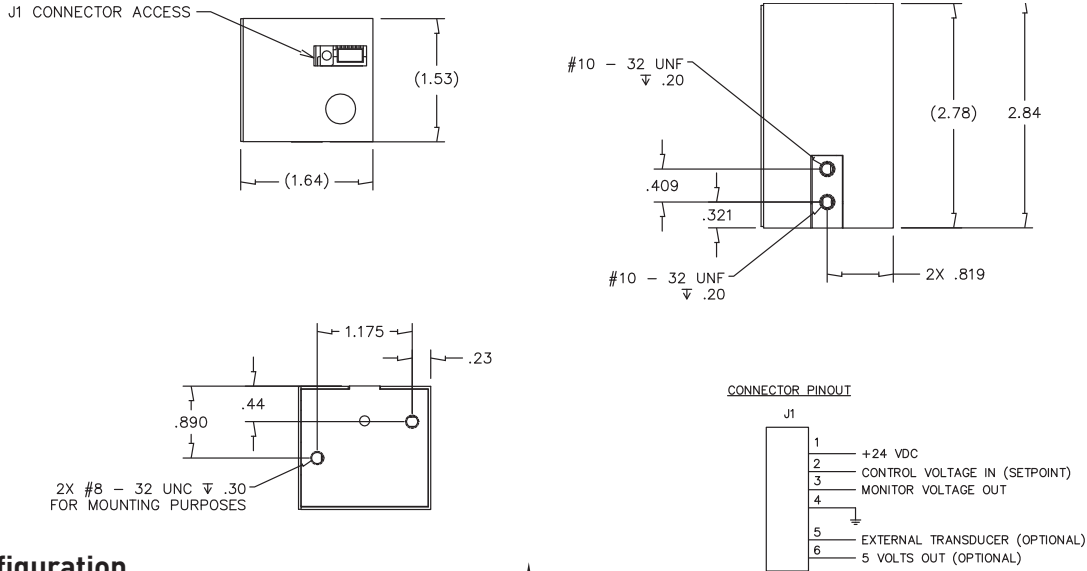
Pressure Ranges:
0-5 psig 0-7 psig 0-15 psig 0-100 psig
Pressure Accuracy:
± 0.2% FS typical* ± 1.5% FS max
Response:
<15 msec (Response time to target pressure is output volume dependent)
Linearity:
< ±1.5% FS

VSO is a registered trademark of Parker Hannifin Corporation.

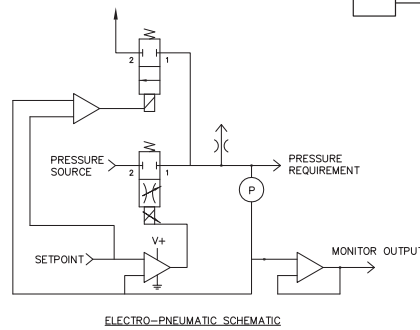


VSO-HP Pressure Controllers

Dimensions



Configuration



Custom configurations are available. Contact factory for details.

Ordering Information

part number

	990-005303-005	990-005303-015	990-005303-100	990-005311-007	990-005311-015	990-005311-100
Family	VSO-HP	VSO-HP	VSO-HP	VSO-HP	VSO-HP	VSO-HP
Configuration ¹	Standard	Standard	Standard	Alternate	Alternate	Alternate
Effective Orifice	0.03	0.03	0.03	0.01	0.01	0.01
Relief Valve Orifice	0.03	0.03	0.03	0.03	0.03	0.03
Power	24 vdc	24 vdc	24 vdc	24 vdc	24 vdc	24 vdc
Control Voltage ²	0-5 vdc	0-5 vdc	0-5 vdc	0-5 vdc	0-5 vdc	0-5 vdc
Pressure Range	0 - 5 psig	0 - 15 psig	0 - 100 psig	0 - 7 psig	0 - 15 psig	0 - 100 psig
Buy Online	N	Y	Y	N	N	N

¹ Standard Configurations have a slight constant bleed to atmosphere to accurately control pressure and are typically used to pressurize closed volumes of inert gasses. Alternate Configuration are typically selected for gas flow applications and do not have an internal bleed.

² Control starts at approximately 10% of full scale control voltage and pressure rating allowing for positive shutoff. Pressure control may not be possible below 10% of full scale rating.



NOTE: Please consult Parker Precision Fluidics for other considerations. For more detailed information, visit us on the Web, or call and refer to Performance Spec. #790-002250-001 and Drawing #890-003186-001.

PPF-EPC-002/US Sept 2009

For more information call 1 .800.525.2857 or email ppfinfo@parker.com
Visit www.parker.com/precisionfluidics

