



Product Bulletin

90EP Series

Adjustable Electronic Pressure Switch



The 90EP Series adjustable electronic pressure switch combines hermetic pressure sensing technology with a solid state switch wetted in a compact stainless steel envelope and the option of a digital

display. The switch points are set electronically and stored digitally which ensures long term stability and accuracy. The 90EP is a user friendly device that comes with a choice of factory set switching

points or manually set switching points with a P.I.N. for security. It has also the potential to electronically interface to main hosts and actuators.

Benefits

- High Performance
- High Accuracy over Operating Temperature
- Excellent Long Term Stability
- Overpressure Capability
- Increased Vibration Resistance
- Tamper Proof
- Media Compatible
- Programmable

Applications

- Injection Molding Machines
- Turbine Controls
- Engine Controls
- Hydraulic Systems
- Industrial Compressors
- Natural Gas Distribution
- Natural Gas Storage
- Automation Systems

Technical Specifications

Performance

Accuracy.....	+/-0.5% FSO
Operating Temperature	-100C to +800C
Storage Temperature	-200C to +1200C

Electrical

Supply Voltage (V _{in})	12 to 27 Vdc
Current Consumption	91EP 10mA@12Vdc (without load) 92EP ... 45mA@12Vdc (without load)
Switching Output	1A max.
Overload	2X
Reverse Voltage Protection..	-27Vdc
CE Qualified	EN 50082-1 & ,2

Switch

Repeatability.....	91EP ±0.5% FSO 92EP ±0.2% FSO
Time Delay	5 ms Typical
Switch Point	5 to 95% FSO in multiples of 0.5% FS
Hysteresis	5 to 95% FSO in multiples of 0.5% FS
Adjustable Range	5 to 95% FSO
Switching Resolution	91EP 0.5% FSO 92EP 0.2% FSO

Physical

Proof Pressure	1.5X
Burst Pressure	3X
Cycle Life	100M F.S. cycles (-100C to +800C)
Random Vibration	10g @ 20-1000Hz
Shock Proof	300 m/s ² 14 ms @ RT
Weight	100g

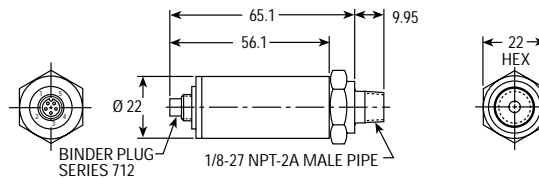
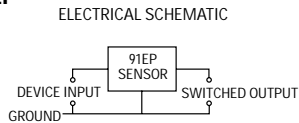
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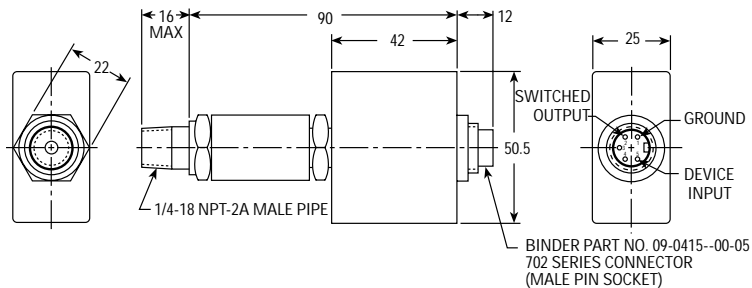
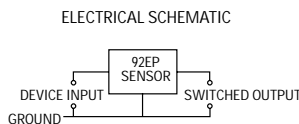
Dimensions

91EP



92EP

with display



Ordering Information

Please enter option:

Series

- (91EP) Device without display
- (92EP) Device with display

Pressure Connection

- (06) 1/4-18 NPT-2A male pipe, 22mm Hex
- (07) 7/16-20 UNF male thread, 22mm Hex
- (14) 1/8-27 NPT-2A male pipe, 22mm Hex

Device Input

- (P) 12 to 27 Vdc

Pressure Ranges

- (A) 00075psig
- (B) 00150psig
- (C) 00300psig
- (D) 00750psig
- (E) 01500psig
- (F) 05000psig
- (G) 07000psig
- (H) 10000psig
- (K) 30000psig

Switch Point

Between 5% and 95% of pressure range
(Multiples of 0.5% FS)

Use formula: $\frac{\text{Switchpoint}}{\text{Device Pressure Range}}$

Example: For 5,000psi switchpoint on 10,000psi device

$$\frac{5,000\text{psi}}{10,000\text{psi}} = 50\% \text{ enter option } \boxed{50.0}$$

Switch Requirements

- (A) Normally open
- (B) Normally closed

Hysteresis

Between 5% and 95% of pressure range
(Multiples of 0.5% FS)

Use formula: $\frac{\text{Switchpoint} - \text{Hysteresis}}{\text{Device Pressure Range}}$

Example: For 5,000psi switchpoint and 4,500 hysteresis on 10,000psi device

$$\frac{5,000 - 4,500}{10,000} = 0.5\% \text{ enter option } \boxed{00.5}$$

