

The P1X has a Dia-Seal Piston design which combines the accuracy of a diaphragm switch with the long life and high pressure capabilities of a piston switch.

The P1X is well suited for applications with the following requirements: explosion proof, long life, high cycle, NEMA 7 & 9 enclosure, ranges from .5 to 1,600 psi.

Features

- Explosion proof housing
- High reliability
- Extremely long life
- UL & CSA listed
- Oil & dust tight

Applications

- Power plants
- Water pumps
- Hydraulic power units
- Pneumatic devices
- General industrial applications
- Oil & gas applications

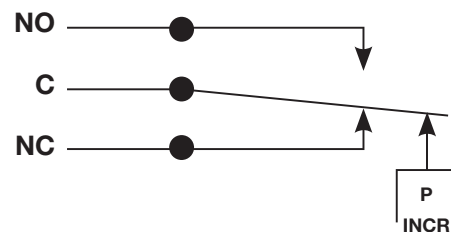


General Specifications*

| | |
|------------------------------------|--|
| Electrical Characteristics: | All models incorporate Underwriters Laboratories, Inc. and CSA Listed single pole double throw snap-action switching elements |
| Accuracy: | ± 2% of the adjustable range |
| Switch: | Single pole double throw (SPDT) snap action; single circuit |
| Wetted Parts: | |
| Process Fitting: | Anodized aluminum |
| Diaphragm: | Buna-N |
| Enclosure: | Anodized aluminum |
| Electrical Connection: | Internal screw terminals via 1/2" NPT conduit connector |
| Enclosure Ratings: | NEMA 7, 9 |
| Pressure Connection: | 1/4"-18 NPT female (standard) |
| Approvals: | |
| UL: | File No. E37043; approved for hazardous locations, Class I, DIV 2 Groups C&D, Class II Groups E, F, & G; not available on 1600 psi range |
| CSA: | Class 3238-01, File No. 022354-0-000 (Not approved with hermetically sealed limit switch) |
| PED (European): | Compliant to PED 97/23/EC |

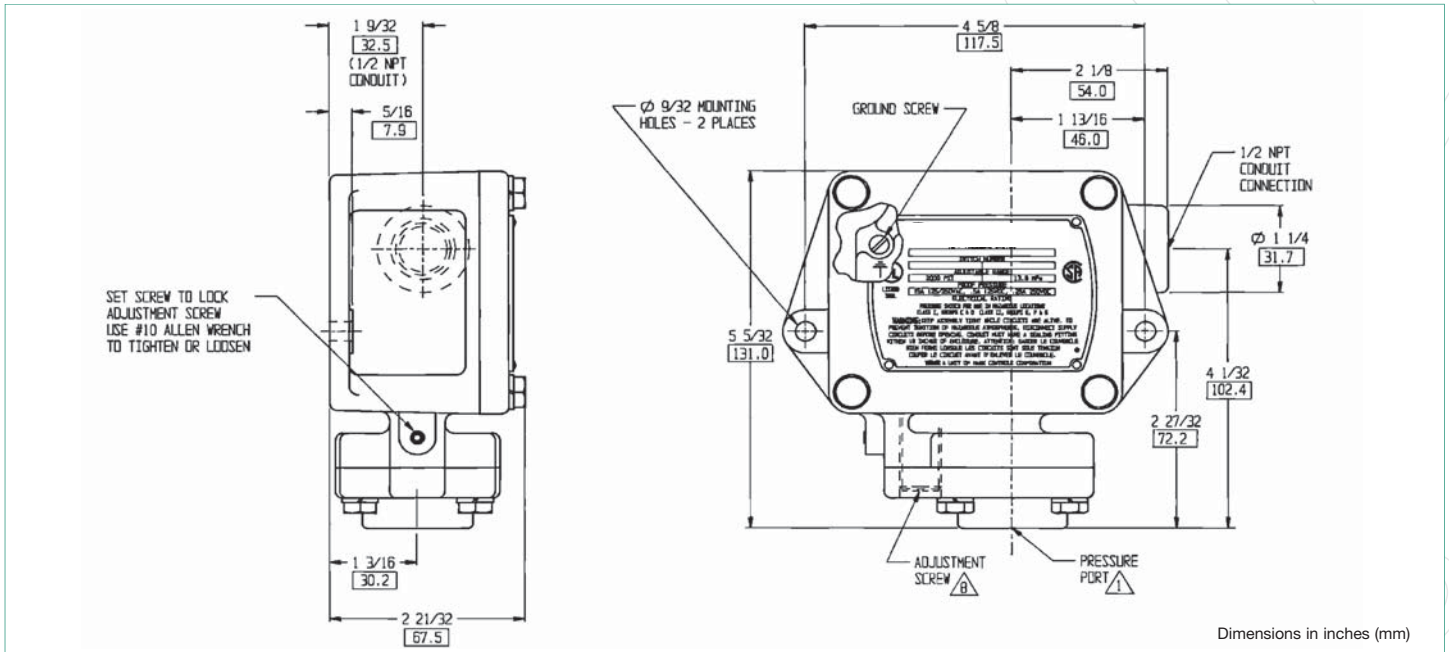
| | |
|---------------------------------|---|
| Temperature Range: | |
| Operating: | -20° to +165 °F (-29° to +74°C) |
| Storage: | -40° to +200 °F (-40° to +93°C) |
| Adjustment Instructions: | Loosen setscrew with a #10 allen wrench. With screwdriver, turn adjustment screw clockwise to increase and counterclockwise to decrease the actuation point. Tighten setscrew after desired setting is reached. |
| Options: | - Viton® diaphragm - Teflon diaphragm - NEMA 4X enclosure - Hermetically sealed limit switch - Factory preset - Cleaned for oxygen service - CSA approval |
| Shipping Weight: | 3.75 lbs. approximate |

Wiring Diagram



* See product configurator for additional options.

Technical Drawing



Product Configurator

| | | | | | | |
|---------|-----|----|----|----|--|--|
| Example | P1X | -H | 85 | SS | | |
|---------|-----|----|----|----|--|--|

H Hermetically sealed limit switch option
- Class I, Division II (requires HH limit switch)

Enclosure
P1X NEMA 7 & NEMA 9 enclosure

Limit Switch¹

| | |
|-----|---|
| -B | 10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC (standard for 30, 85, and 340 ranges) |
| -F | 10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.4 amps @ 125 VDC; 0.2 amps @ 250 VDC |
| -H | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC (standard for 600 range) |
| -J | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC with elastomer boot (standard for 1600 range) |
| -K | 10 amps @ 125/250/480 Vac; 2 amps @ 600 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC |
| -M | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC |
| -GH | 1 amp @ 125 VAC gold contacts |
| -HH | Hermetically sealed; 5 amps @ 125/250 VAC |

- Options**
- P2 1/2" NPT pressure fitting (available only with stainless steel models)
 - FX NEMA 4X enclosure
 - Sxxx Factory preset (consult factory)

- Diaphragm/O-Ring**
- Blank Buna-N diaphragm
 - T Teflon
 - V Viton® diaphragm (not available for 1600 Range)

- Pressure Fitting**
- Blank Anodized aluminum, 1/4" NPT female
 - SS Stainless steel, 1/4" NPT female

Pressure Range

| | Adjustable Range | | | | Approx. Deadband ² (Actuation Value) | Proof Pressure |
|------|------------------------|------------|------------------------|------------|--|----------------|
| | Decreasing - psi (bar) | | Increasing - psi (bar) | | | |
| | Min | Max | Min | Max | | |
| 30 | .5 (.03) | 28.5 (1.9) | 1 (.1) | 30 (2) | .1 - 1.5 (.07 - .1) | 2000 (133) |
| 85 | 3 (.2) | 81.5 (5.4) | 4 (.3) | 85 (5.7) | .25 - 3.5 (.02 - .23) | 2000 (133) |
| 340 | 6 (.4) | 331.5 (22) | 7 (.5) | 340 (23) | 1 - 8.5 (.07 - .6) | 2000 (133) |
| 600 | 25 (1.7) | 581 (39) | 27 (1.8) | 600 (40) | 2 - 19 (.13 - 1.3) | 2000 (133) |
| 1600 | 400 (27) | 1520 (101) | 480 (32) | 1600 (107) | 20 - 80 (1.3 - 5.3) | 2000 (133) |

¹ Consult sales drawing for specific deadband values
² Deadband values indicated when used with the "standard" limit switch