

Series 231P Pressure Switch/Internal Adjustment

Compact, adjustable pressure switch for high pressure hydraulic process applications. Our combined piston sensor and efficient Nega-Rate® Belleville disc spring offers superior set point stability and vibration resistance.

Operating Pressure Data

| Adjustable Range Number | Adjustable Set Point Range | | Deadband (approximate) | Maximum Recommended System Pressure | Proof Pressure |
|-------------------------|----------------------------|--------------|------------------------|-------------------------------------|----------------|
| | Increasing | Decreasing | | | |
| 3 | * | 250 to 710 | 90 | 4000 | 5000 |
| 4 | * | 600 to 1050 | 140 | 4000 | 5000 |
| 5 | * | 700 to 2700 | 300 | 6000 | 8000 |
| 6 | * | 2400 to 4400 | 450 | 6000 | 8000 |
| 7 | * | 4100 to 6500 | 500 | 8000 | 10000 |

All values given in psig unless otherwise noted.
* Add selected deadband to decreasing pressure range.

Standard Specifications

Electrical Listings

Snap action electrical switch assembly listed by Underwriters' Laboratories, Inc., CSA International

Electrical Connection

1/2 NPT male conduit connection with PVC insulated 18 AWG, 18" long leads

Pressure Connection

1/4 NPT Female and 1/2 NPT Male

Temperature Range*

Ambient: -40°F to +180°F
(-40°C to +82°C)

Media: -40°F to +300°F
(-40°C to +149°C)

* Temperature limits change with O-Ring selection. See Electrical Assembly specification sheet for Temperature Class Ratings.

Adjustment

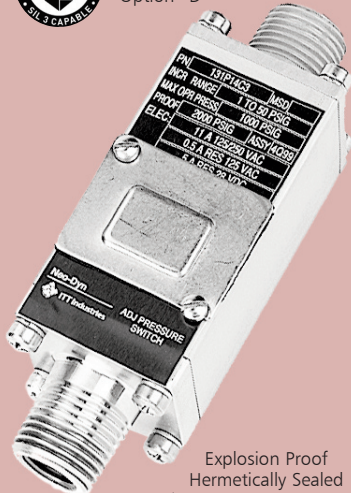
Internal, slotted adjustment nut

Shipping Weight

Approximately 20 ounces



Order Miscellaneous Option "D"



Explosion Proof
Hermetically Sealed
(NEMA 4X, 7, 9 and 13)

Ordering Sequence — Select desired option for each category

OPTIONS

Wetted Material

- 1 Aluminum port and piston, teflon seal, and Buna-N O-Ring
- 4 316 stainless steel port and piston, teflon seal, and Buna-N O-Ring

Adjustable Range

- 3 250 psig dec. to 800 psig inc. (17.3 bar dec. to 55.1 bar inc.)
- 4 600 psig dec. to 1190 psig inc. (41.4 bar dec. to 82.0 bar inc.)
- 5 700 psig dec. to 3000 psig inc. (48.3 bar dec. to 207 bar inc.)
- 6 2400 psig dec. to 4850 psig inc. (165 bar dec. to 334 bar inc.)----
- 7 4100 psig dec. to 7000 psig inc. (283 bar dec. to 483 bar inc.)

Electrical Form

- C 11 amp, 1/4 hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC; .5 amp resistive at 125 VDC
- CC 11 amp, 1/4 hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC; .5 amp resistive at 125 VDC

Enclosure

- 6 Explosion proof, hermetically-sealed electrical assembly, EX d IIC. Part Number 057-0770 & 057-0772 (Form C) and 057-0771 & 057-0773 (Form CC). Agency listings include **Underwriters Laboratories, Inc., CSA International, Factory Mutual, and Inmetro.** Division 1 and 2, Class I, Groups A, B, C, and D; Class II, Groups E, F, and G. NEMA 4X, 7, and 9; IP66. Leads are factory sealed and Pressure Switches are Dual Seal Certified.

Miscellaneous

- A Epoxy paint exterior — extra protection for severe environments
- B Viton O-Ring
- C EPR O-Ring
- D SIL approval and marking, per IEC61508 (includes FMEA report)
- H 316 stainless steel body (Wetted Material 4 only)
- I 3/4 NPT Conduit box with terminal strip (Groups C & D only, not available with N option)
- J Annealed stainless steel port screws for H₂S environments — Consult factory for reduced system and proof pressure ratings
- M Gold electrical contacts for extremely low current applications
- N ATEX and IECEx with CE Mark
- R 72" Electrical free leads
- Z Mounting bracket kit

Special (Consult representative or factory)

- Non-catalog adjustable range and/or set point, deadband and proof pressure

Ordering Procedure

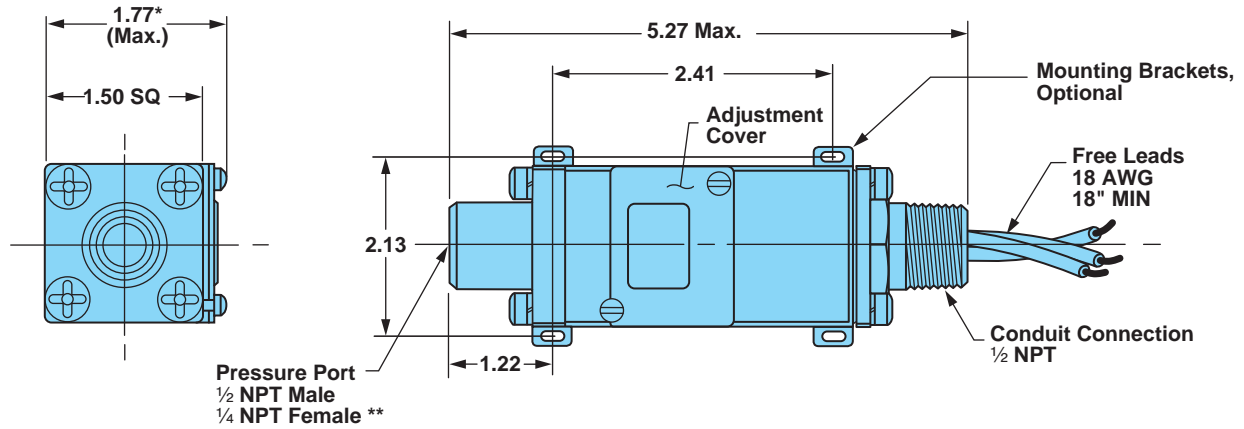
- When factory presetting is desired, stipulate set point, increasing or decreasing
- Insert available option number or letter designation as required

Example

- Series
- Wetted Material
- Adjustable Range
- Electrical Form (specify)
- Enclosure
- Miscellaneous

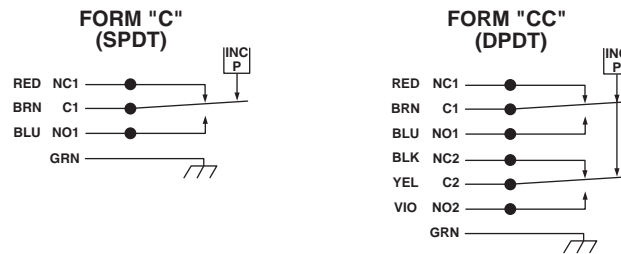
231P45CC6_

Envelope Dimensions



* 1.90 Max. with Mounting Bracket

Electrical Form



Basic Principles of Design

