

Series 231P Pressure Switch/Internal Adjustment

Compact, adjustable pressure switch for high pressure hydraulic process applications. Using our efficient Nega-Rate® Belleville disc spring, we offer 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
8	*	5500 to 9000	1000	12,500	15,000

All values given in psig unless otherwise noted.

* Add selected deadband to decreasing pressure range.

Standard Specifications

Electrical Listings

Snap action electrical switch recognized by Underwriters' Laboratories, Inc. and CSA International

Electrical Connection

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

Pressure Connection

1/4 NPT Female
1/2 NPT Male (N/A Range 8)

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

Adjustment

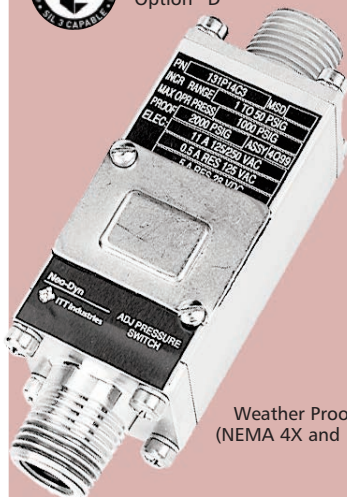
Internal, slotted adjustment nut

Shipping Weight

Approximately 20 ounces



Order Miscellaneous Option "D"



Weather Proof (NEMA 4X 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 (not available for Range 8)
- 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.)
- 8 5500 psig dec. to 10,000 psig inc. (379 bar dec. to 689 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

- 3 Meets or exceeds the requirements of NEMA Type 3, 3R, 3S, 4, 4X and 13, IP65

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)
- I 1/2 NPT conduit box with terminal strip
- J Annealed stainless steel port screws for H₂S environments — Consult factory for reduced system and proof pressure ratings (Not available with X option)
- M Gold electrical contacts for extremely low current applications
- R 72" Electrical free leads
- U M20 x 1.5 Electrical Conduit Adapter
- Z Mounting bracket kit
- X CE Mark

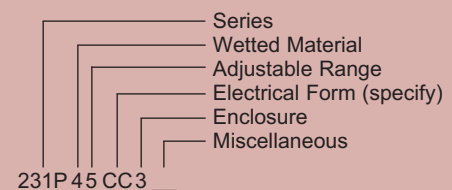
Special (Consult representative or factory)

- 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

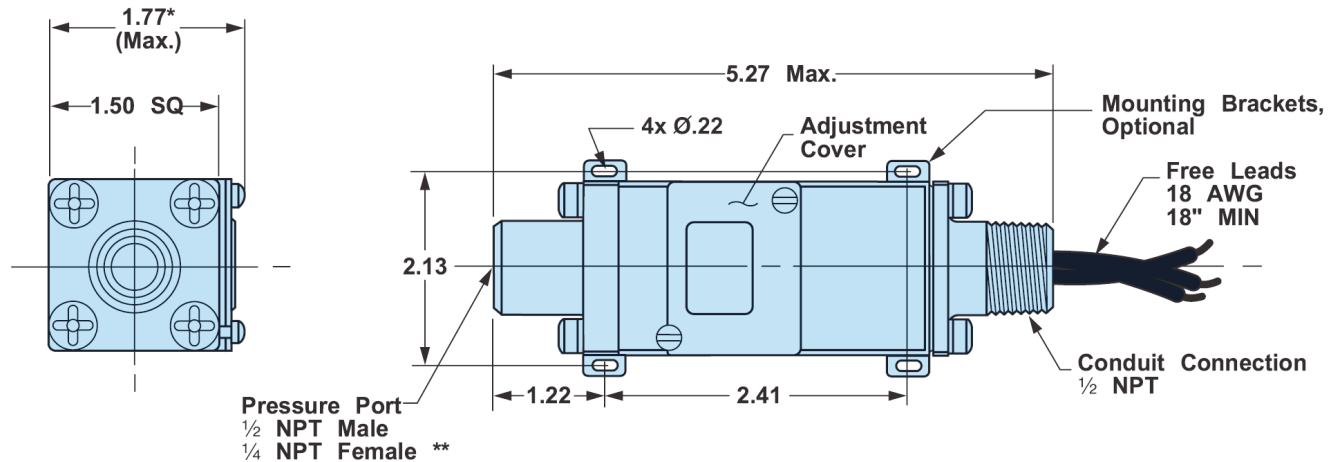
Example



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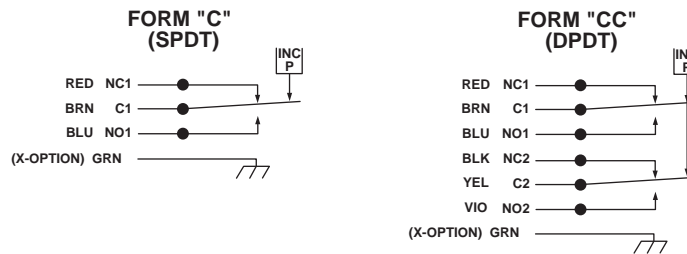
Field Adjustable
250 to 7000 psig

Envelope Dimensions



*1.90 Max. with Mounting Bracket
**No 1/4 NPT for Range 8

Electrical Form



Basic Principles of Design

