

Series 131P Pressure Switch/Internal Adjustment

Compact, adjustable pressure switch for pneumatic and low impulse hydraulic process applications. Using our efficient Nega-Rate® Belleville disc spring, we offer superior set point stability and vibration resistance. The 131P series pressure switch also has a selectable deadband feature which can be preset to fit most any application.

Operating Pressure Data

Adjustable Range Number	Adjustable Set Point Range		Selectable Deadband at a Specified Set Point	Default Deadband (approx.)	Maximum Recommended System Pressure	Proof Pressure
	Increasing	Decreasing				
2	*	1 to 24	1 to 1.5	1.4	1000	2000
3	*	17 to 42	3 to 5	4	1000	2000
4	*	1 to 50	7 to 11	9	1000	2000
5	*	45 to 100	7 to 11	9	1000	2000
6	*	90 to 150	9 to 17	13	1000	2000
7	*	140 to 200	11 to 21	16	1000	2000

All values given in psig unless otherwise noted.

* Add selected deadband to decreasing pressure range.

Standard Specifications

Electrical Listings

Snap action electrical switch assemblies, Part Numbers 057-0770 & 057-0772 (Form C) and 057-0771 & 057-0773 (Form CC), are listed by Underwriters' Laboratories, Inc., FM Approvals, CSA International and NCC (INMETRO). See the miscellaneous option N for additional listings.

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

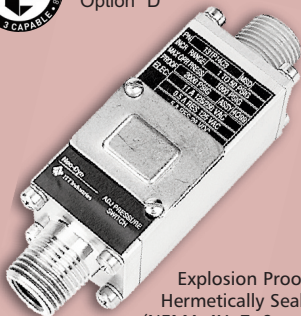
Internal, slotted adjustment wheel

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, polyimide diaphragm, Buna-N O-Ring
- 4 316 stainless steel port, polyimide diaphragm, Buna-N O-Ring

Adjustable Range

- 2 1 psig dec. to 25 psig inc. (.069 bar dec. to 1.72 bar inc.)
- 3 17 psig dec. to 46 psig inc. (1.17 bar dec. to 3.17 bar inc.)
- 4 1 psig dec. to 59 psig inc. (.069 bar dec. to 4.07 bar inc.)
- 5 45 psig dec. to 109 psig inc. (3.10 bar dec. to 7.51 bar inc.)
- 6 90 psig dec. to 163 psig inc. (6.21 bar dec. to 11.2 bar inc.)
- 7 140 psig dec. to 216 psig inc. (9.65 bar dec. to 14.9 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 Includes an explosion proof, hermetically-sealed electrical assembly. EX d IIC. 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)
- E 7/16" - 20 SAE Female Port
- G 1/2 NPT Female Port
- 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 (Not available with Z option)
- M Gold electrical contacts for extremely low current applications (1 Amp at 125 VAC; 1 Amp Res, 0.5 Amp Ind. at 28 VDC)
- N ATEX and IECEx with CE Mark
- R 72" Electrical free leads
- S Stainless steel diaphragm
- U M20 x 1.5 Electrical Conduit Adapter
- V 1/4 NPT male port
- Z Mounting bracket kit (Not available with J option)

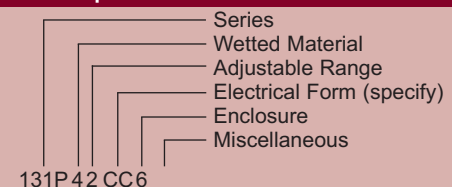
Special (Consult representative or factory)

- 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
- When a selectable DB is desired, stipulate DB within allowed range

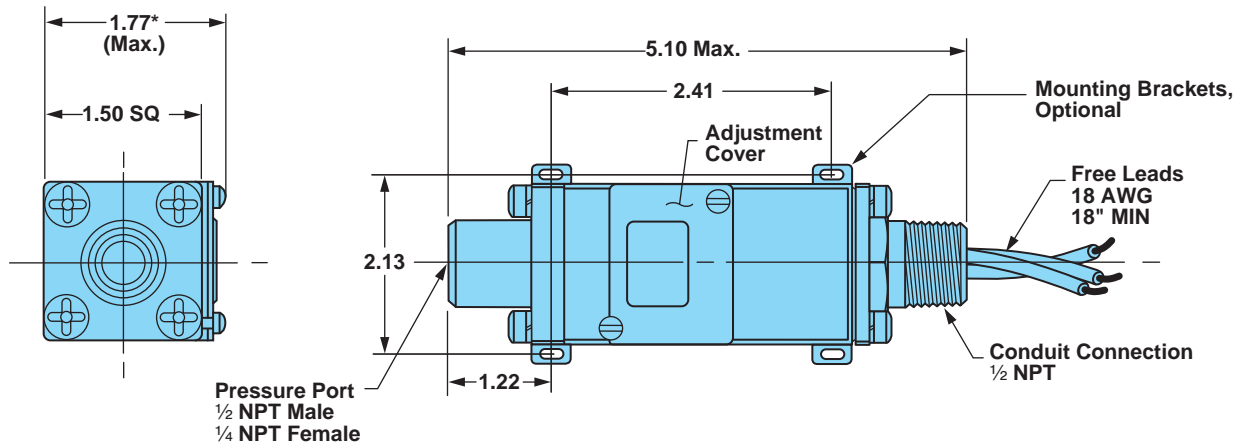
Example



Series 131P Pressure Switch/Internal Adjustment

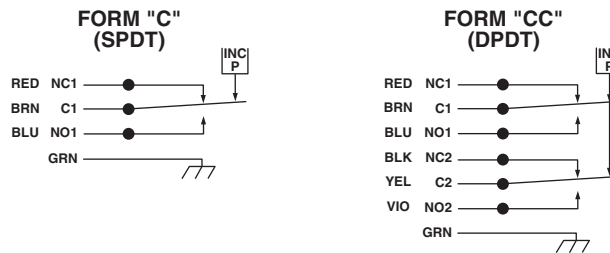
Field Adjustable
1 to 216 psig

Envelope Dimensions



*1.90 Max. with Mounting Bracket

Electrical Form



Basic Principles of Design

