

Series 181P Vacuum Switch/Internal Adjustment

Compact, adjustable vacuum switch well suited to numerous applications. Our efficient Nega-Rate® Belleville disc spring offers superior set point stability and vibration resistance. The 181P series vacuum switch also has a selectable deadband feature which can be preset.

Operating Pressure Data

Adjustable Range Number	Adjustable Set Point Range		Selectable Deadband	Default Deadband (approx.)	Maximum Recommended System Pressure	Proof Pressure
	Increasing Vacuum	Decreasing Vacuum				
2	4 to 28" Hg	2 to 26" Hg	1.5 to 2.5" Hg	2" Hg	150	250

All values given in psig unless otherwise noted.

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., CSA International and NCC (INMETRO). See the miscellaneous option N for additional listings.

Electrical Connection

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

Pressure Connection

1/4 NPT Female and
1/2 NPT Male

Temperature Range*

Ambient: -40°F to +176°F
(-40°C to +80°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 Vacuum Range

- 2 2" Hg dec. to 28" Hg 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 for 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
- I 3/4 NPT Conduit box with terminal strip (Groups C & D only, not available with N option)
- M Gold electrical contacts for extremely low current applications
- N ATEX and IECEx with CE Mark
- R 72" Electrical free leads
- U M20 x 1.5 Electrical Conduit Adapter
- Z Mounting bracket kit

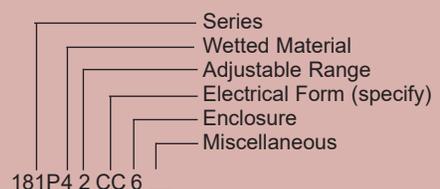
Special (Consult representative or factory)

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

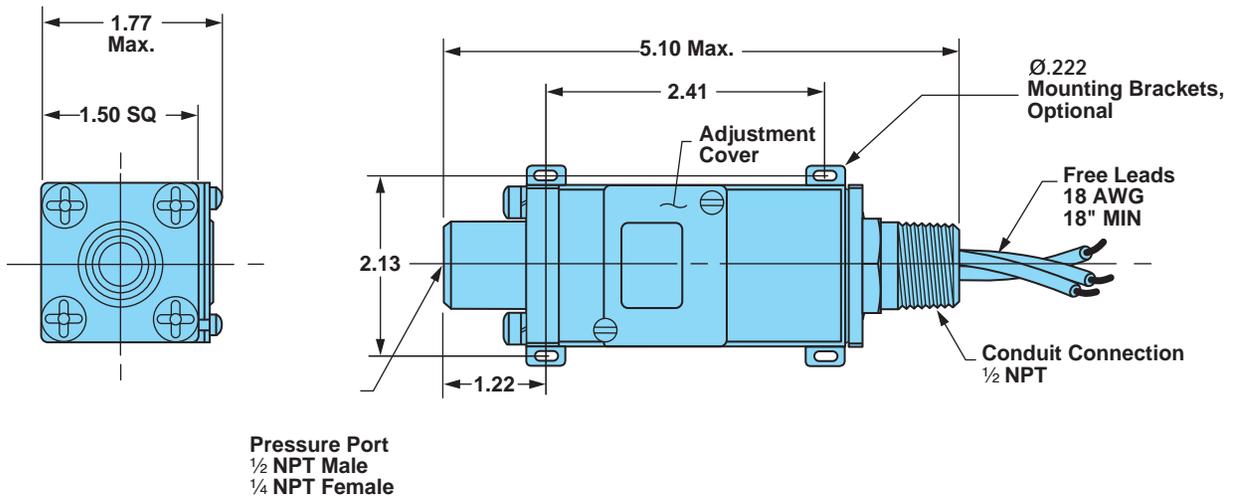
Example



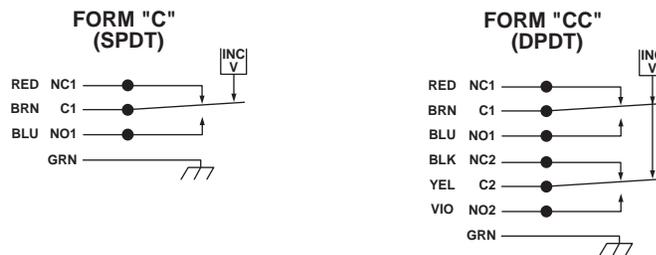
Series 181P Vacuum Switch/Internal Adjustment

Field Adjustable
2 to 28 inches of mercury

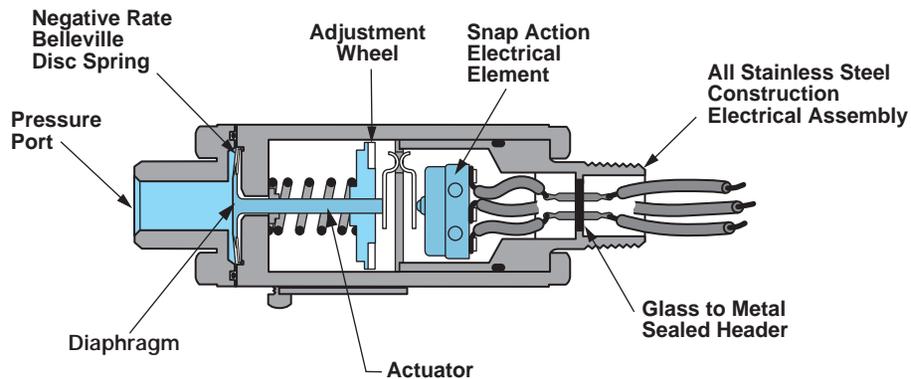
Envelope Dimensions



Electrical Form



Basic Principles of Design



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An ITT Company

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Specifications and dimensions subject to change.