

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 at the factory.

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

Switch listed by Underwriters Laboratories, Inc., CSA International

Electrical Connection

1/2 NPT male conduit connection, 18" free 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

Adjustment

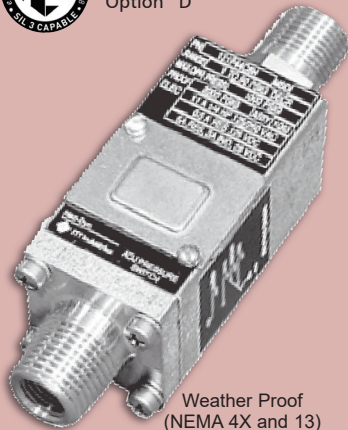
Internal, slotted adjustment wheel

Shipping Weight

Approximately 13 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, polyimide diaphragm, Buna-N O-Ring
- 4 316 stainless steel port, polyimide diaphragm, Buna-N O-Ring

Adjustable Vacuum Range

- 2 2" 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

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

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)
- I 3/4 NPT Conduit box with terminal block
- M Gold electrical contacts for extremely low current applications
- R 72" Electrical free leads
- U M20 x 1.5 Electrical Conduit Adapter
- X CE Mark
- Z Mounting bracket kit

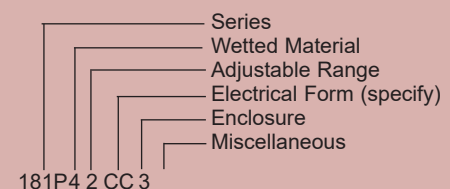
Special (Consult representative or factory)

- 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

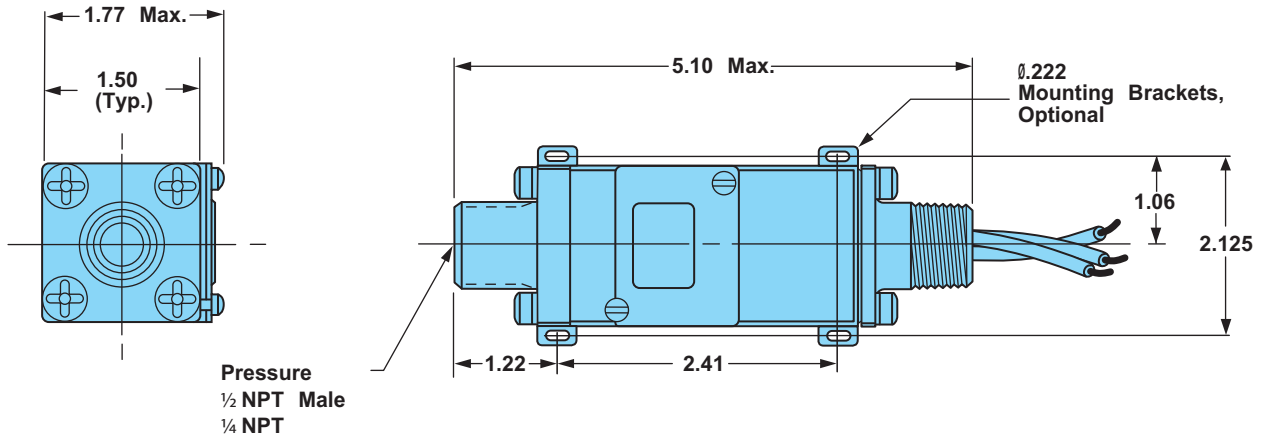
Example



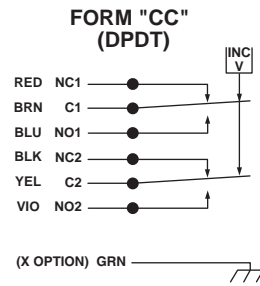
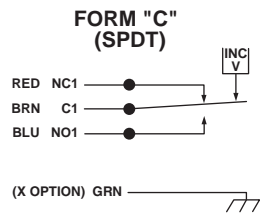
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Field Adjustable
2 to 28 inches of mercury

Envelope Dimensions



Electrical Form



Basic Principles of Design

