



**Weather Proof  
(NEMA 4X and 13)**

### DESCRIPTION

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	Decreasing				
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 and Factory Mutual

#### Electrical Connection

½ NPT male conduit connection, 18" free leads

#### Pressure Connection

¼ NPT Female and ½ NPT Male

#### Temperature Range\*

Ambient: -40F to +176 F  
(-40C to +80 C)

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

\* Temperature limits change with O-Ring selection

#### Adjustment

Internal, slotted adjustment wheel

#### Shipping Weight

Approximately 13 ounces

### 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 2" dec. to 28" Hg inc.

##### Electrical Form

- C 11 amp, ¼ hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC; .5 amp resistive at 125 VDC
- CC 11 amp, ¼ 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

##### Miscellaneous

- A Epoxy paint exterior for extra protection for severe environments
- B Viton O-Ring
- C EPR O-Ring
- I ¾ NPT Conduit box with terminal block
- M Gold electrical contacts for extremely low current applications
- R 72" Electrical free leads
- X CE Mark
- Z Mounting bracket kit

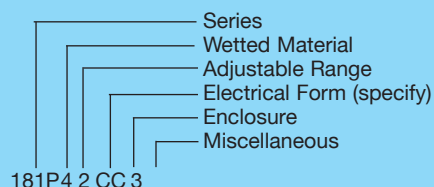
##### Special (Consult representative or factory)

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

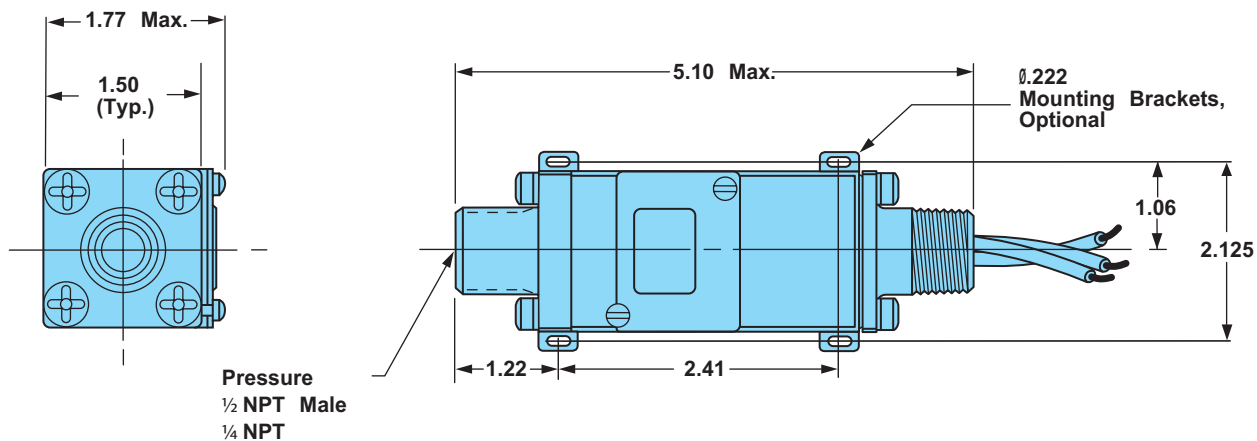
### Ordering Procedure

- 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

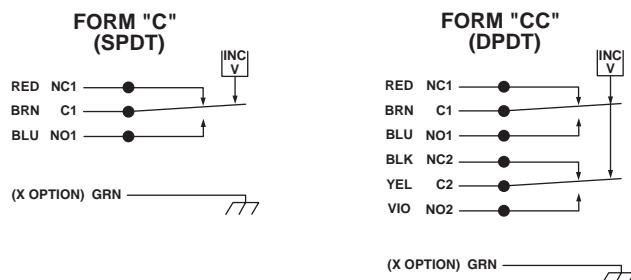
### Example



## Envelope Dimensions



## Electrical Form



## Basic Principles of Design

