



**Explosion Proof  
Hermetically Sealed  
(NEMA 4X, 7, 9 and 13)**

### DESCRIPTION

A sealed piston sensor with a efficient Nega-Rate® Belleville disc spring makes this switch well suited for high impulse hydraulic applications with tamper-proof set point.

### Operating Pressure Data

Series	Fixed Set Point Range		Deadband (minimums)	Maximum Recommended System Pressure		Proof Pressure	
	Increasing	Decreasing		Hydraulic	Pneumatic	Hydraulic	Pneumatic
225P	45 to 450	15 to 405	30 or 10%	5000	3000	7500	7500
225P	450 to 3000	250 to 2700	160 or 10%	5000	3000	7500	7500
225PP	3001 to 7500	2701 to 6750	10%	10,000*	5000	15,000**	7500

All values given in psig.

\*Diminished safety factor equal to approximately 2:1

\*\*Diminished safety factor equal to approximately 1.3:1

### Standard Specifications

#### Deadband (Differential)

The deadband can be selected anywhere from the minimum tabulated to a maximum of 45% of the set point

#### Electrical

Snap action electrical switch assembly listed by Underwriters' Laboratories, Inc., Factory Mutual and CSA International

#### Electrical Connection

½ NPT male conduit connection with PVC insulated 18 AWG, 18" long leads

#### Pressure Connection

¼ NPT Female

#### 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.

#### Shipping Weight

Approximately 1 pound

### Ordering Sequence — Select desired option for each category

#### OPTIONS

##### Set Points

**225P** between 15 psig dec. and 450 psig inc. (1.0 bar dec. and 31 bar inc.)

**225P** between 250 psig dec. and 3000 psig inc. (17 bar dec. and 207 bar inc.)

**225PP** between 2701 psig dec. and 7500 psig inc. (186 bar dec. and 517 bar inc.)

##### Wetted Material

**1** Aluminum port and piston, Teflon seal and Buna-N O-Ring

##### 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

**6** Explosion proof, hermetically-sealed electrical assembly, leads factory sealed, P/N 057-0770 (C Form) and P/N 057-0771 (CC Form); **Underwriters' Laboratories, Inc.** listed (File E56677), **CSA International** certified (File LR34146), and **Factory Mutual** approved (File J.I.1R5A9.AE) for Division 1 and 2; Class I, Groups A, B, C and D; Class II, Groups E, F and G Hazardous Locations; NEMA Type 7 and 9.

##### Miscellaneous

**A** Epoxy paint exterior — extra protection for severe environments

**B** Viton O-Ring

**C** EPR O-Ring

**I** ¾ NPT Conduit box with terminal strip (Groups C & D only)

**M** Gold electrical contacts for extremely low current applications

**N** ATEX approval with CE Mark

**R** 72" Electrical free leads

**W** Stainless steel screws

#### Special (Consult representative or factory)

- Pressure port per MS33649E4
- Electrical connection per MS33678-10SL-3P
- Non-catalog set point, deadband and/or proof pressure
- Media temperature capability from -65°F to +350°F
- Stainless steel Aminco port with ⅜" - 18 UNF-3B THD

### Ordering Procedure

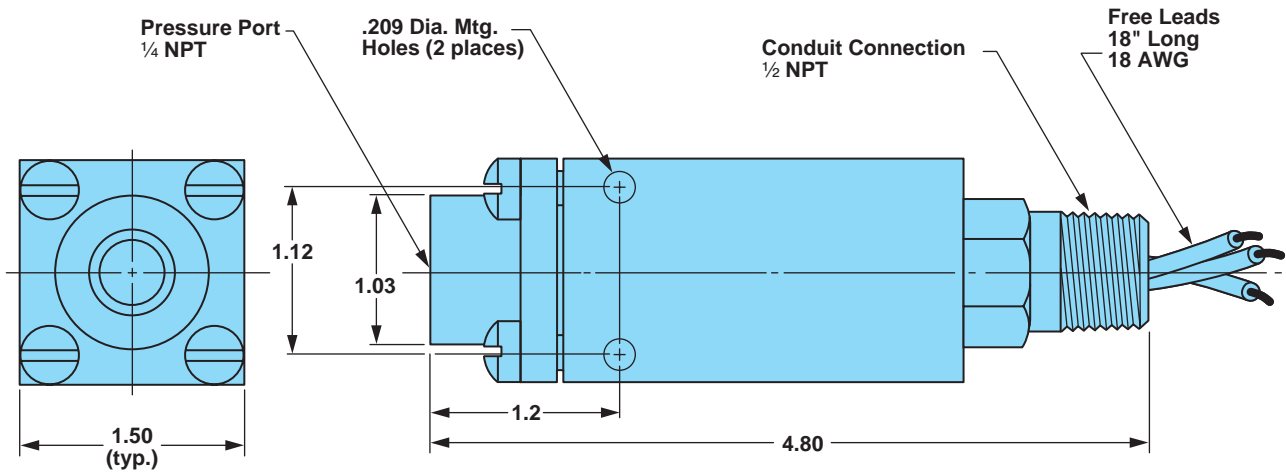
- Specify set point, increasing or decreasing
- Specify deadband
- Specify media
- Insert available option number or letter designation as required

### Example

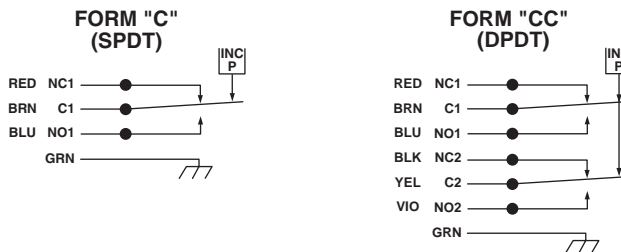
225P 1 CC 6 \_ \_ \_

Series  
Wetted Material  
Electrical Form  
Enclosure  
Miscellaneous  
Customer Identification Number (numerically assigned by factory)

Envelope Dimensions



Electrical Form



Basic Principles of Design

