



**Explosion Proof
Hermetically Sealed
(NEMA 7 and 9)**

DESCRIPTION

A field adjustable pressure switch for low- to mid-range process applications. The Series 119P, which utilizes a Tri-Clamp® compatible process connection, is an ideal pressure switch for bioprocess and other sanitary applications. Set point stability and vibration resistance are a function of the Nega-Rate® Belleville disc spring. This unit features 316 stainless steel construction, an explosion-proof/hermetically sealed electrical module, 18" standard free leads, SPDT or DPDT electrical forms and an exterior surface polish of 9 - 11 micro inch Ra (0.23 - 0.28 micron Ra).†

Operating Pressure Data

| Adjustable Range Number | Adjustable Set Point Range | | Deadband (approximate) | *Maximum Recommended System Pressure | *Proof Pressure |
|-------------------------|----------------------------|------------|------------------------|--------------------------------------|-----------------|
| | Increasing | Decreasing | | | |
| 2 | 3 to 30 | 1 to 28 | 2 | 1000 | 1500 |
| 4 | 20 to 80 | 15 to 75 | 5 | 1000 | 1500 |
| 5 | 50 to 250 | 30 to 230 | 20 | 1000 | 1500 |
| 6 | 200 to 400 | 175 to 375 | 25 | 1000 | 1500 |
| 7 | 375 to 725 | 330 to 680 | 45 | 1000 | 1500 |

All values given in psig.

*Note: Pressures are switch ratings. Check clamp manufacturer for clamp rating.

Standard Specifications

Electrical

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

Electrical Connection

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

Pressure Connection

1½" sanitary fitting mates with Tri-Clamp® fitting†

Temperature Range

Ambient: -40°F to +180°F
(-40°C to +82°C)

Media: -40°F to +250°F
(-40°C to +121°C)

Adjustment

Internal, slotted adjustment nut

Shipping Weight

Approximately 2 pounds

Ordering Sequence — Select desired option for each category

OPTIONS

Wetted Material

5 316 stainless steel port and diaphragm, heliarc welded

Adjustable Range

2 1 psig dec. to 30 psig inc. (.07 bar dec. to 2.1 bar inc.)
4 15 psig dec. to 80 psig inc. (1.0 bar dec. to 5.5 bar inc.)
5 30 psig dec. to 250 psig inc. (2.1 bar dec. to 17.2 bar inc.)
6 175 psig dec. to 400 psig inc. (12.1 bar dec. to 27.6 bar inc.)
7 330 psig dec. to 725 psig inc. (22.8 bar dec. to 50.0 bar inc.)

Electrical Form

C 11 amps and ¼ hp 125 or 250 VAC; 5 amps resistive, 3 amps inductive 28 VDC; .5 amps resistive 125 VDC
CC 11 amps and ¼ hp 125 or 250 VAC; 5 amps resistive, 3 amps inductive 28 VDC; .5 amps resistive 125 VDC

Enclosure

6 Explosion proof • factory sealed • hermetically sealed electrical assembly P/N 057-0030 (C Form); P/N 057-0057 (CC Form). **Underwriters' Laboratories, Inc.** listed (file #E56677) or **Canadian Standards Association** certified (file #34146) for Division 1 and 2; Class I, Groups A, B, C and D; Class II, Groups E, F and G hazardous locations (NEMA 7 and 9)

Miscellaneous

I ¾" Conduit box with terminal strip
M Gold electrical contacts for extremely low current applications
N CENELEC approval
R 72" Electrical free leads

Special (Consult representative or factory)

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

†Tri-Clamp® is a Registered Trademark of Tri-Clover Inc.

Ordering Procedure

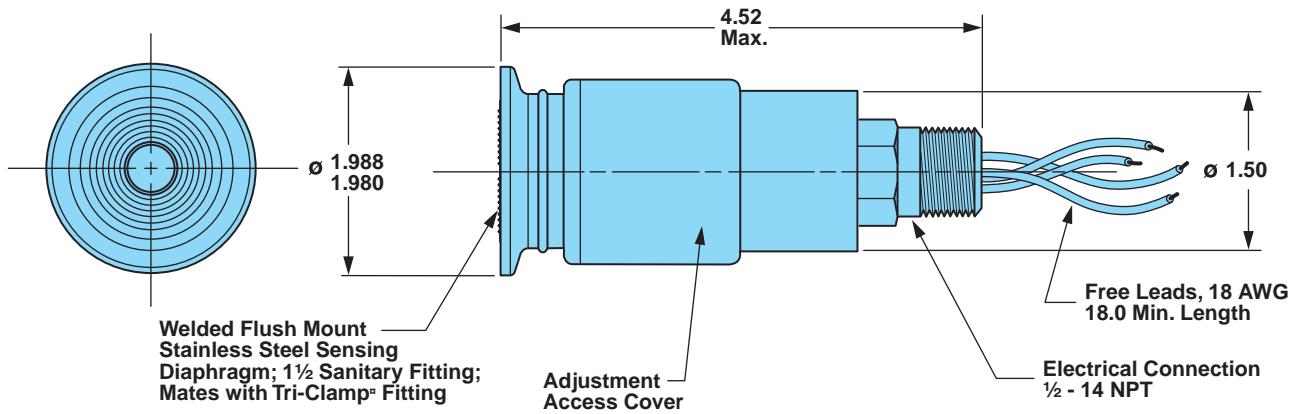
- When factory presetting is desired, stipulate set point, increasing or decreasing
- Insert available option number or letter designation as required

Example

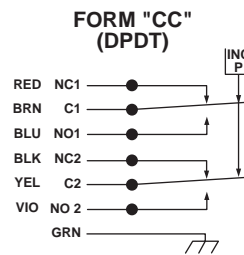
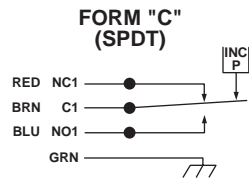
Series
Wetted Material
Adjustable Range
Electrical Form (specify)
Enclosure
Miscellaneous

119P 52 C 6 _

Envelope Dimensions



Electrical Form



Basic Principles of Design

