

Series 160P Differential Pressure Switch

Mid-range, adjustable differential pressure switch. Efficient Nega-Rate® Belleville disc spring sensing mechanism for stable set points during system pressure changes. Hermetically sealed, explosion-proof electrical assembly well suited for hazardous or explosive environments.

Operating Pressure Data

Adjustable Range Number	Adjustable Set Point Range		Deadband (approximate)	Maximum Recommended System Pressure	Proof Pressure
	Increasing	Decreasing			
2	1.1 to 15	.75 to 14.65	.35	300	500 Hi/Low 200 Low/Hi
4	1.5 to 18	.3 to 16.8	1.2	500	1000 Hi/Low 400 Low/Hi
6	5 to 60	2 to 57	3	500	1000 Hi/Low 400 Low/Hi
7	55 to 110	49 to 104	6	500	1000 Hi/Low 400 Low/Hi

All values given in psid.

Standard Specifications

Electrical

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 PVC insulated 18 AWG, 18" long leads

Pressure Connection

1/4 NPT Female

Temperature Range*

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

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

*Temperature limits change with O-Ring selection. See Electrical Assembly specification sheet for Temperature Class Ratings.

Adjustment

Concealed wrench flat adjustment with range scale

Shipping Weight

Approximately 3.5 pounds



Order Miscellaneous Option "D"



Ordering Sequence — Select desired option for each category

OPTIONS

Wetted Material

- 1 Aluminum port and body, Teflon coated polyimide diaphragm, Buna-N O-Rings and stainless steel
- 4 Stainless steel, Teflon coated polyimide diaphragm and Buna-N O-Rings

Adjustable Range

- 2 .75 psid dec. to 15 psid inc. (0.1 bar dec. to 1.0 bar inc.)
- 4 .3 psid dec. to 18 psid inc. (0.0 bar dec. to 1.2 bar inc.)
- 6 2 psid dec. to 60 psid inc. (0.1 bar dec. to 4.1 bar inc.)
- 7 49 psid dec. to 110 psid inc. (3.4 bar dec. to 7.6 bar 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 — 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 strip (Groups C & D only, not available with N option)
- M Gold electrical contacts for extremely low current applications (1 Amp at 125 VAC; 1 Amp Res, 0.5 Amp Ind. at 28 VDC)
- N ATEX and IECEx with CE Mark
- R 72" Electrical free leads
- S Stainless steel diaphragm — No low over high capability (Ranges 2 & 4, Wetted Material 4 only)
- U M20 x 1.5 Electrical Conduit Adapter

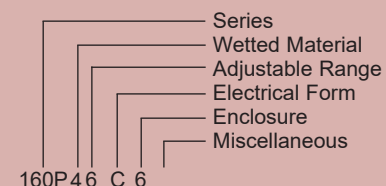
Special (Consult representative or factory)

- Non-catalog adjustable range and/or set point, deadband and proof pressure
- Media temperature capability from -65°F to +350°F
- Chemical seals installed
- Optional orientation of Low Pressure Port

Ordering Procedure

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

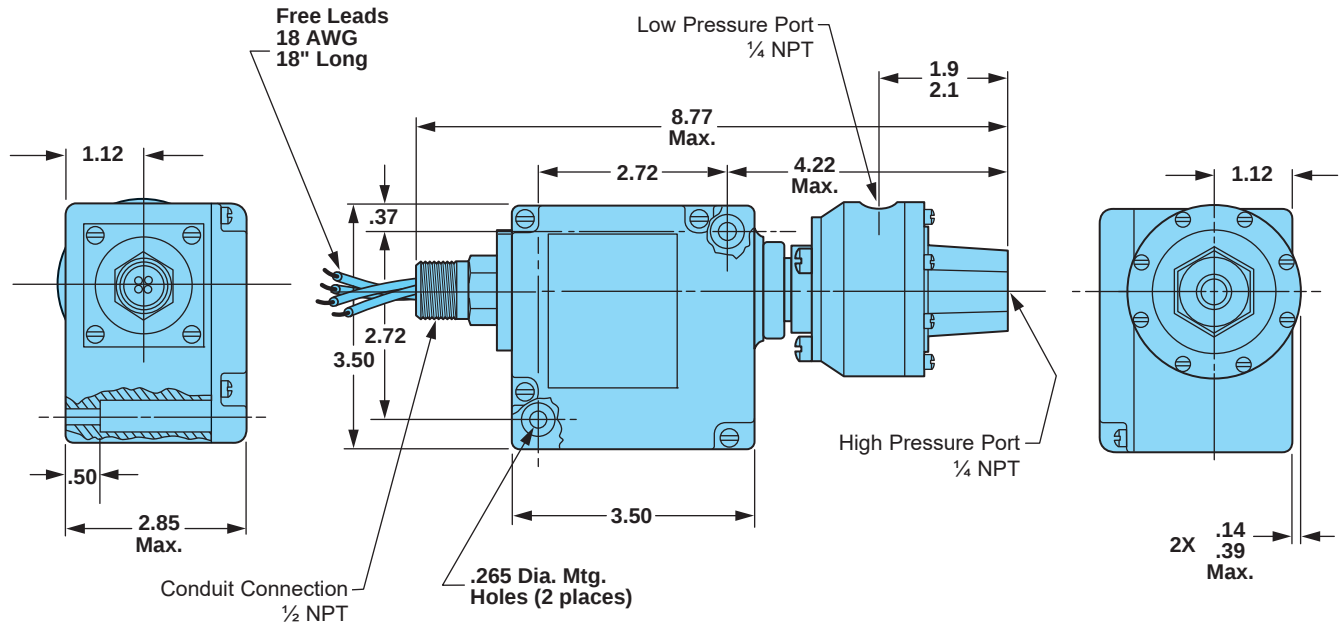
Example



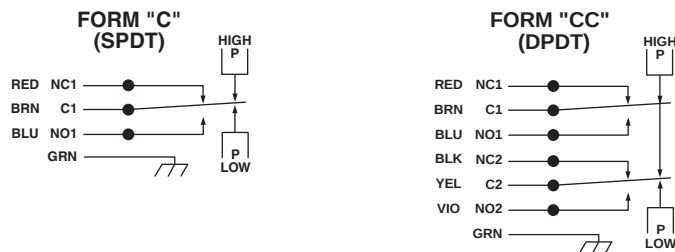
Series 160P Differential Pressure Switch

Field Adjustable
.3 to 110 psid

Envelope Dimensions



Electrical Form



Basic Principles of Design

