

Series 112P8 Flanged Pressure Switch/Diaphragm Sensor

Flanged pressure switch for installations that formerly required a chemical seal with fill fluids. Reliable Nega-Rate® Belleville disc spring sensing mechanism. Redundant seals with venting between seals for alarm or indication. 316 stainless steel body and hermetically sealed, explosion-proof electrical assembly well suited for hazardous or corrosive atmospheres.

Operating Pressure Data

Adjustable Range Number	Adjustable Set Point Range		Deadband (approximate)	Maximum Recommended System Pressure*		Proof Pressure			
	Increasing	Decreasing		150# Flange	300# Flange	150# Flange		300# Flange	
				Steel	Stainless	Steel	Stainless	Steel	Stainless
2	3 to 30	1.5 to 28.5	2	210	555	375	425	950	1100
4	20 to 80	15 to 75	5	210	555	375	425	950	1100
5	80 to 180	60 to 160	20	210	555	375	425	950	1100
6	140 to 240	115 to 225	25	210	555	375	425	950	1100
7	225 to 325	190 to 290	35	—	555	—	—	950	1100

All values given in psig.

*System pressure ratings are based on flanges of the lowest strength steel and 316 stainless at 250°F. Consult ANSI B 16.5 for increased ratings at lower temperatures.

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., FM Approvals, 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 inch, 1/16 raised face flange per ANSI B 16.5 - 1998
Class 150 (150#)
Class 300 (300#)

Note: Customer responsible for gasket selection and installation. (Refer to Installation and Operating Instructions supplied with switch)

Temperature Range*

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

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

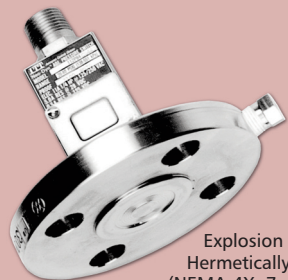
*Limited by gasket material selected

Adjustment

Internal, slotted adjustment with range scale

Shipping Weight

Approximately 4.5 pounds



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

Ordering Sequence — Select desired option for each category

OPTIONS

Adjustable Range

- 2 1.5 psig dec. to 30 psig inc. (0.1 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 60 psig dec. to 180 psig inc. (4.1 bar dec. to 12.4 bar inc.)
- 6 115 psig dec. to 240 psig inc. (7.9 bar dec. to 16.5 bar inc.)
- 7 190 psig dec. to 325 psig inc. (13.1 bar dec. to 22.4 bar inc.) (300# Flange only)

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
- 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
- N ATEX Approval
- R 72" Electrical free leads
- U M20 x 1.5 Electrical Conduit Adapter

Flange Size/Material

- 1 150# Steel
- 2 300# Steel
- 3 150# Stainless Steel
- 4 300# Stainless Steel

Diaphragm

- 4 316 Stainless Steel
- 6 Tantalum
- 7 Hastelloy C
- 9 Inconel

Internal O-Rings

- 2 Kalrez
- 3 Viton
- 5 EPR
- 8 Buna-N

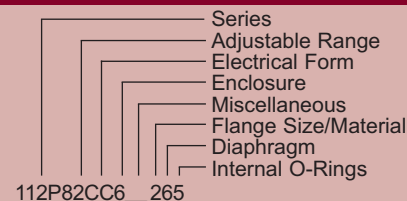
Special (Consult representative or factory)

- Non-catalog adjustable range and/or set point and deadband

Ordering Procedure

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

Example

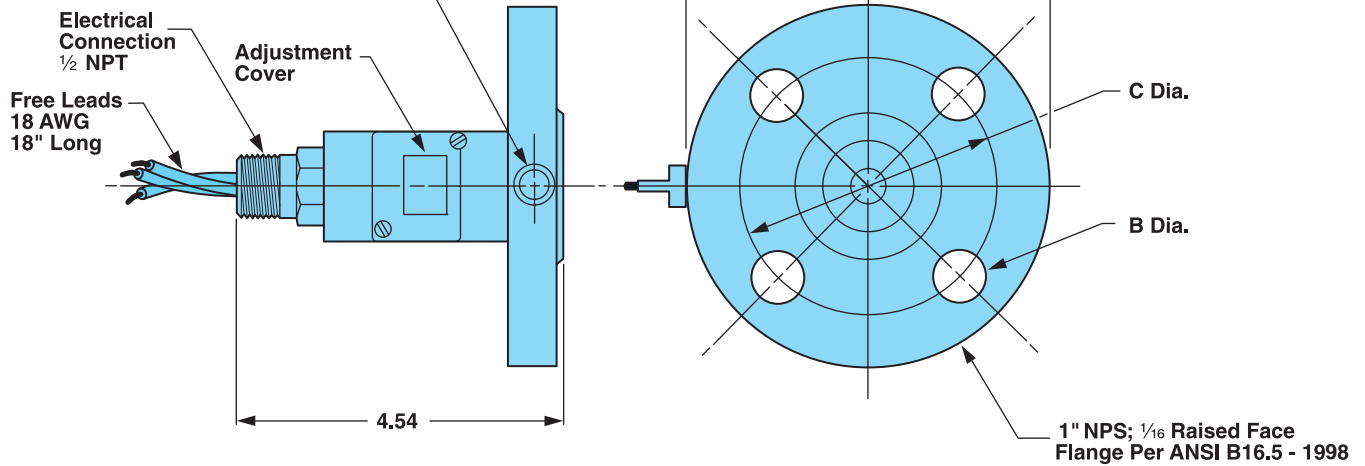


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Field Adjustable
1.5 to 325 psig

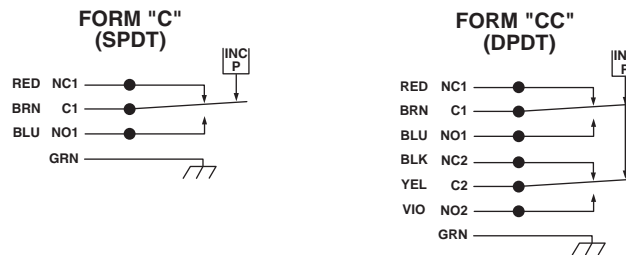
Envelope Dimensions

Diaphragm Leakage Port with indicator
- below 20 psig system pressure use
gauge or pressure switch for detection.
Random radial location. 1/4 NPT



FLANGE	A	B	C
CLASS 150	4.25	.62	3.12
CLASS 300	4.88	.75	3.50

Electrical Form



Basic Principles of Design

