



# ITT

Neo-Dyn®  
by Aerospace Controls

## Neo-Dyn® 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	300# Flange	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 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

1 inch, ¼ 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, 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
I	¾ 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

##### 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

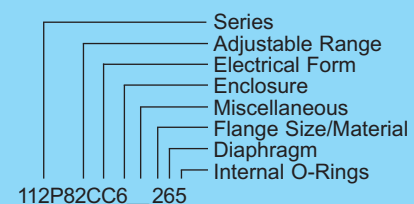
##### Special (Consult representative or factory)

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

### Ordering Procedure

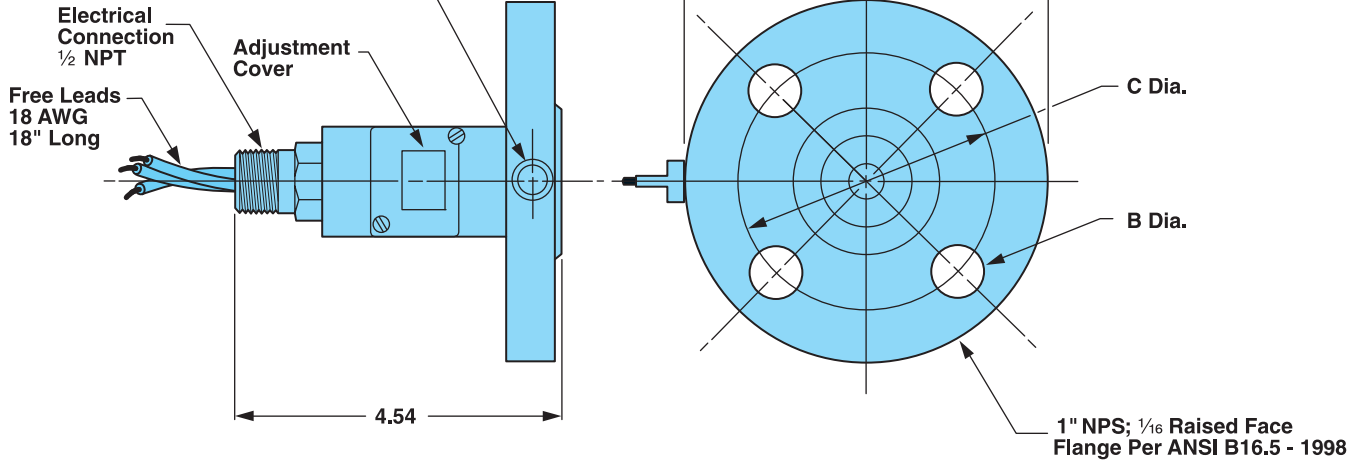
- When factory presetting is desired, stipulate set point, increasing or decreasing
- Insert available option number or letter designation as required

### Example



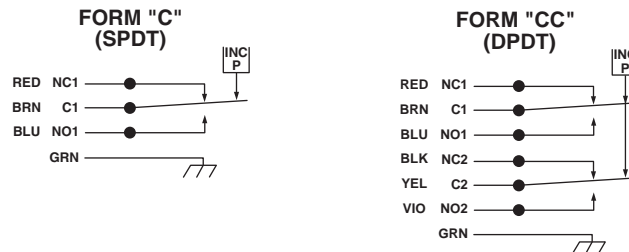
## Envelope Dimensions

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

