

**Series** 1900

# **Compact Low Differential Pressure Switches**

1/8 FEMALE NPT HIGH PRESS. CONNECTION

[76 20]

03-1/2

[88.90]

Ø7/8 [22.23]

CONNECTION

Set Points from 0.07 in to 20 in w.c. Repetitive Accuracy within 3%



60° TYP



LOW PRESSURE CONNECTION



(2) Ø3/16 [4.76] MOUNTING HOLES ON A 4-3/16 [106.36] B.C.





screw located on same side for easy installation. Scan here to watch

product video

The Dwyer-engineered force-motion amplifier increases the leverage of diaphragm movement and results in a switch with excellent sensitivity and repeatability.

1-5/16 [33.32]

Our most popular series combines advanced design and precision construction to make these switches able to perform many of the tasks of larger, costlier units. Designed for air conditioning service, they also serve many fluidics, refrigeration, oven and dryer applications. For air and non combustible compatible gases, Series 1900 switches have set points from 0.07 to 20 in w.c. (1.8 to 508 mm). Set point adjustment is easy with range screw located inside conduit enclosure. Internal location helps prevent tampering. UL, CE, CSA listed, and FM approved.

# Series 1910 Switches Operating Ranges, Deadbands

|         | Operating    | Approximate Dead Band |           |
|---------|--------------|-----------------------|-----------|
|         | Range,       | At Min.               | At Max.   |
| Model   | in w.c.      | Set Point             | Set Point |
| 1910-00 | 0.07 to 0.15 | 0.04                  | 0.04      |
| 1910-0  | 0.15 to 0.55 | 0.10                  | 0.10      |
| 1910-1  | 0.40 to 1.6  | 0.15                  | 0.16      |
| 1910-5  | 1.40 to 5.5  | 0.30                  | 0.30      |
| 1910-10 | 3.0 to 11.75 | 0.40                  | 0.40      |
| 1910-20 | 4.0 to 20.0  | 0.40                  | 0.50      |



Manual reset Model 1900 MR includes special snap switch which latches on pressure increase above the setpoint. Switch must be manually reset after pressure drops below the setpoint. To order, change base model to 1900 and add MR suffix after range number. Example: 1900-10-MR. Available on -1, -5,-10 or -20 ranges only. Option is not UL, CSA or FM listed

Note: Manual Reset (MR) Option for use only in single positive pressure applications.

A-399, Duct Pressure Monitor Kit — For use with standard or manual reset model switches. Includes mounting flange, tubing and adapters.

A-329, Street Ell — Brass adapter for applications requiring right angle connections. Two required for differential pressures.

A-302F-A, 303 SS Static Pressure Tip with mounting flange. For 3/16" ID rubber or plastic tubing. 4" insertion depth. Includes mounting screws

A-489, 4" Straight Static Pressure Tip with Flange

### **SPECIFICATIONS**

1-3/4 [44.45]

CLEARANCE

FOR COVER REMOVAL

Service: Air and non-combustible. compatible gases.

Wetted Materials: Consult factory. Temperature Limits: -30 to 180°F (-34

1-19/32

[40.48]

[59.53]

Pressure Limits: 45 in w.c. (11.2 kPa) continuous, 10 psig (68.95 kPa) surge. Switch Type: Single-pole double-throw (SPDT)

Repeatability: ±3%.

Electrical Rating: 15 A @ 120-480 VAC, 60 Hz. Resistive 1/8 HP @125 VAC, 1/4 HP @ 250 VAC, 60 Hz. Derate to 10 A for operation at high cycle rates.

Electrical Connections: 3 screw type, common, normally open and normally closed

Process Connections: 1/8" female

NPT

-7/8

[47.63]

2-9/32

[57.94]

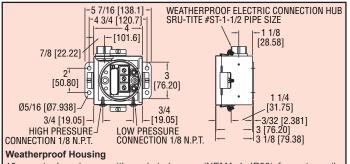
[61.90]

Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.

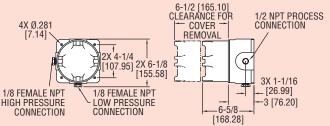
Set Point Adjustment: Screw type inside conduit enclosure.

Weight: 1lb. 4.5 oz (581 g). Agency Approvals: CE, CSA, FM, and UL. Optional-EXPL explosion-proof enclosure does not possess any

agency approvals.



16 ga. steel enclosure with gasketed cover (NEMA 4, IP66) for wet or oily conditions. Withstands 200 hour salt spray test. Wt. 5 lb (2.3 kg). Switch must be factory installed. Change 1910 base number to 1911 and add -WP suffix. Example: 1911-1-WP.



## Explosion-Proof Housing

Cast iron base with brass cover. Rated Class I, Groups D; Class II, Div. 2, Groups E, F, G; Class III and NEMA 7, 9 NEMA 3. (7 lb). Switch must be factory installed. Change model to 1911 and add -EXPL suffix. Example: 1911-1-EXPL

Process Tubing Options: See page 547 (Gage Tubing Accessories)