



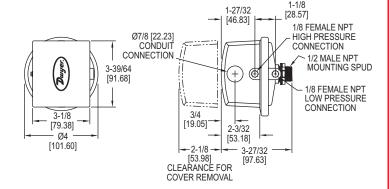




# LOW DIFFERENTIAL PRESSURE SWITCH FOR GENERAL INDUSTRIAL SERVICE Set Points from 0.07 in w.c. to 85 in w.c. Repetitive Accuracy within 2%









Essential for industrial environments, the Series 1800 Low Differential Pressure Switch for General Industrial Service combines small size and low price with 2% repeatability for all but the most demanding applications. Set point adjustment inside the mounting stud permits mounting the switch on one side of a wall or panel with adjustment easily accessible on the opposite side. UL and CSA listed, and FM approved.

#### **FEATURES/BENEFITS**

- · Compact size and repeatability provide a high-value switch useful in many industrial
- · Designed for panel and wall mounting to easily meet mounting requirements in most industrial settings
- Pressure ranges from 0.07 in w.c. to 85 in w.c. make this switch suitable for a wide range of applications

#### **APPLICATIONS**

- · Process applications
- · Mechanical equipment control

## **SPECIFICATIONS**

Service: Air and non-combustible, compatible gases

Wetted Materials: Consult factory

Temperature Limits: -30 to 180°F (-34 to 82.2°C); 1823-00: -20 to 180°F (-28.9 to

82.2°C).

Pressure Limits: 10 psig (68.95 kPa) continuous, 25 psig (172.4 kPa) surge.

Switch Type: Single-pole double-throw (SPDT).

Repeatability: ±2%.

Electrical Rating: 15 A @ 120-480 VAC, 60 Hz. Resistive 1/8 HP @125 VAC, 1/4 HP @ 250 VAC, 60 Hz. De-rate 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.

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

position orientations.

Set Point Adjustment: Screw type inside mounting spud.

Weight: 1 lb 5 oz (595 g).

Agency Approvals: CE, CSA, FM, UL. Optional-EXPL explosion-proof enclosure

does not possess any agency approvals.

| OPTIONS   |
|---|
| Weatherproof Housing  |
| 16 ga. steel enclosure with gasketed cover (NEMA 4, IP66) for wet or oily           |
| conditions. Withstands 200 hour salt spray test. Wt. 5-1/2 lb (2.5 kg). Switch must |
| be factory installed.   |
| Note: To order change 1823 has a number to 1824 and add. W/D suffix                 |

### **Explosion-Proof Housing**

Example: 1824-1-WP

Cast iron base with aluminum cover. Rated Class I, Div. 1 & 2, Group D; Class II, Div. 1 & 2, Groups E, F, G; Class III and NEMA 7 CD, 9 EFG. Wt. 7-1/2 lb (3.4kg). Switch must be factory installed.

Note: To order, change 1823 base number to 1824 and add -EXPL suffix.

Example: 1824-1-EXPL

**MIL Environmental Construction** 

Unlisted Model 1820 can be furnished with a special sealed snap switch for protection against high humidity, fungus and/or military applications. Similar to Model 1823 except deadband is slightly greater and some lower setpoints may not be possible.

Note: To order, add -MIL suffix. Example: 1820-2-MIL

| MODEL CHART                   |                                 |                      |                      |
|-------------------------------|---------------------------------|----------------------|----------------------|
|                               | Operating Range,                | Approximate Deadband |                      |
| Model                         | in w.c.                         | At Min. Set Point    | At Max. Set Point    |
| 1823-00                       | 0.07 to 0.22                    | 0.05                 | 0.05                 |
| 1823-0                        | 0.15 to 0.5                     | 0.06                 | 0.06                 |
| 1823-1                        | 0.3 to 1.0                      | 0.08                 | 0.08                 |
| 1823-2                        | 0.5 to 2.0                      | 0.10                 | 0.12                 |
| 1823-5                        | 1.5 to 5.0                      | 0.14                 | 0.28                 |
| 1823-10                       | 2.0 to10                        | 0.18                 | 0.45                 |
| 1823-20                       | 3 to 22                         | 0.35                 | 0.70                 |
| 1823-40                       | 5 to 44                         | 0.56                 | 1.10                 |
| 1823-80                       | 9 to 85                         | 1.30                 | 3.0                  |
| 1823-10<br>1823-20<br>1823-40 | 2.0 to 10<br>3 to 22<br>5 to 44 | 0.18<br>0.35<br>0.56 | 0.45<br>0.70<br>1.10 |

| ACCESSORIES |   |  |  |
|-------------|---|--|--|
| Model       | Description   |  |  |
| A-389       | Mounting bracket; 16 ga. steel, zinc plated and dichromate dipped for corrosion resistance; provides rugged, permanent mounting and speeds installation |  |  |
| A-489       | 4" straight static pressure tip with flange   |  |  |
| A-491       | 6" straight static pressure tip with flange   |  |  |
| A-493       | 8" straight static pressure tip with flange   |  |  |
| 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-302F-B    | 303 SS static pressure tip with mounting flange; for 3/16" rubber or  |  |  |
|             | plastic tubing; 6" insertion depth; includes mounting screws  |  |  |
| A-302F-C    | 303 SS static pressure tip with mounting flange; for 3/16" rubber or  |  |  |
|             | plastic tubing; 8" insertion depth; includes mounting screws  |  |  |

Process Tubing Options: See page 453 (Gage Tubing Accessories)