EXPLOSION-PROOF DIFFERENTIAL PRESSURE SWITCHES

## Compact, Low Cost, Explosion-rroof and Weatherproof



MODEL 1950 EXPLOSION-PROOF DIFFERENTIAL PRESSURE SWITCH combines

## SPECIFICATIONS

the best features of the popular Dwyer ${ }^{\circledR}$ Series 1900 Pressure Switch with an integral explosion-proof and weatherproof housing, making it an exceptional value for either application. It is CE, UL and CSA listed, FM approved for use in Class I, Div 1, Groups C and D, Class II Groups E, F, and G and Class III hazardous atmospheres (NEMA 7 \& 9), Raintight NEMA 3 (IP54). Weatherproof features include a drain plug and O-ring seal in cover. Electrical connections are easily made by removing front cover. For convenience the set point adjustment screw is located on the outside of the housing. Twelve models offer set points from .03 to 20 in w.c. ( 0.0075 to 5 kPa ) and from .5 to $50 \mathrm{psi}(0.035$ to 3.5 bar). The unit is very light and compact - about half the weight and bulk of other explosion-proof or weather-proof switches with separate enclosures.
MODEL CHART

| Model | Range, in w.c. | Approximate Deadband |  | Price |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Min. Set Point | Max. Set Point |  |
| 1950-02-2S | . 03 to . 10 | . 025 | . 05 | \$216.75 |
| 1950-00-2F | . 07 to . 15 | . 04 | . 05 | 150.00 |
| 1950-0-2F | . 15 to . 50 | . 10 | . 15 | 150.00 |
| 1950-1-2F | . 4 to 1.6 | . 15 | . 20 | 150.00 |
| 1950-5-2F | 1.4 to 5.5 | . 30 | . 40 | 150.00 |
| 1950-10-2F | 3 to 11 | . 40 | . 50 | 150.00 |
| 1950-20-2F | 4 to 20 | . 40 | . 60 | 150.00 |

## SERIES 1950G

Service: Air and non-combustible, compatible gases
Wetted Materials: Consult factory. Temperature Limits: -40 to $140^{\circ} \mathrm{F}$ $\left(-40\right.$ to $\left.60^{\circ} \mathrm{C}\right)$; 0 to $140^{\circ} \mathrm{F}\left(-17.8\right.$ to $\left.60^{\circ} \mathrm{C}\right)$ for 1950P-8, 15, 25, and 50. -30 to $130^{\circ} \mathrm{F}$ $\left(-34.4\right.$ to $\left.54.4^{\circ} \mathrm{C}\right)$ for $1950-02$.
Pressure Limits: Continuous: 1950's - 45 in w.c. (0.11 bar); 1950P's - 35 psi - 45 in W.C. (0.11 bar); 1950P's - 35 psi
(2.41 bar); $1950 \mathrm{P}-50$ only -70 psi (4.83 bar). Surge: 1950's - 10 psi ( 0.69 bar ), 1950 P 's -50 psi (3.45 bar), 1950P-50 only - 90 psi (6.21 bar).
Enclosure Rating: NEMA 3 (IP54),
NEMA 7 \& 9.
Switch Type: Single-pole double-throw
(SPDT).
MODEL CHART

| Model* | Range, psid | Approximate Deadband |  | Price |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Min. Set Point | Max. Set Point |  |
| 1950P-2-2F | 0.5 to 2 | 0.3 | 0.3 | \$174.00 |
| 1950P-8-2F | 1.5 to 8 | 1.0 | 1.0 | 174.00 |
| 1950P-15-2F | 3 to 15 | 0.9 | 0.9 | 174.00 |
| 1950P-25-2F | 4 to 25 | 0.7 | 0.7 | 174.00 |
| 1950P-50-2F | 15 to 50 | 1.0 | 1.5 | 174.00 |

* $\mathrm{P}=\mathrm{PS}$ ID range models

Caution: For use only with air or compatible gases. Applications with hazardous atmospheres and a single positive pressure may require special venting.

Electrical Rating: $15 \mathrm{~A} @, 125,250$, 480 VAC, 60 Hz . Resistive $1 / 8 \mathrm{HP}$ @ 125 VAC, $1 / 4 \mathrm{HP}$ @ 250 VAC, 60 Hz . Electrical Connections: 3 screw type, common, normally open and normally closed.
Process Connections: $1 / 8^{\prime \prime}$ female NPT. Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.
Set Point Adjustment: Screw type on top of housing.
Weight: $3.25 \mathrm{lb}(1.5 \mathrm{~kg})$; 1950-02 model, $4.4 \mathrm{lb}(2 \mathrm{~kg})$.
Agency Approvals: CE, CSA, FM, UL.

EXPLOSION-PROOF DIFFERENTIAL PRESSURE SWITCH
Explosion-rroof, Weatherprooof, Compatible with Watural Gases

$\left.\begin{aligned} & \text { 1/8 FEMALE NPT } \\ & \text { URE CONNECTION }\end{aligned} \rightarrow \rightarrow \right\rvert\, \begin{aligned} & -1-15 / 32[37.30] \\ & -3 / 8[9.53]\end{aligned}$


THE MODEL 1950G EXPLOSION-PROOF SWITCH combines the best features of the popular Dwyer® ${ }^{\circledR}$ Series 1950 Pressure Switch with the benefit of natural gas compatibility. Units are rain-tight for outdoor installations, and are UL listed for use in Class I, Groups A, B, C, \& D; Class II, Groups E, F, \& G and Class III atmospheres, Directive 94/9/EC (ATEX) Compliant for C $\left.\in \sum_{x}\right\rangle$ II 2G Exd IIB + H2 T6, CSA \& FM approved for Class I, Div 1, Groups B, C, D; Class II, Div 1, Groups E, F, G and Class III atmospheres IECEx Exd IIB +H 2 T 解 $\left(-40^{\circ} \mathrm{C}<\mathrm{Ta}<+60^{\circ} \mathrm{C}\right)$. The 1950 G is very compact, about half the weight and bulk of equivalent conventional explosion-proof switches.
Easy access to the SPDT relay and power supply terminals is provided by removing the top plate of the aluminum housing. A supply voltage of $24 \mathrm{VDC}, 120$ or 240 VAC is required. A captive screw allows the cover to swing aside while remaining attached to the unit. Adjustment to the set point of the switch can be made without disassembly of the housing.

## SPECIFICATIONS

Service: Air and compatible combustible

## gases.

Wetted Materials: Contact factory.
Temperature Limits: 0 to $140^{\circ} \mathrm{F}$ $\left(-17\right.$ to $\left.60^{\circ} \mathrm{C}\right)$. Note: Set point drift may occur with ambient temperature changes.
Pressure Limits: 45 in w.c. ( 11.2 kPa ) continuous; 10 psig ( 68.95 kPa ) surge. Enclosure Rating: NEMA 3 (IP54), NEMA 7 \& 9.
Switch Type: 1 Form C relay (SPDT).
Electrical Rating: 10A, $120 / 240$ VAC, 28 VDC. Resistive $50 \mathrm{~mA}, 125$ VDC.

Power Requirements: 24 VDC $+10 \%$. 120 or 240 VAC $\pm 10 \%$ optional. Electrical Connections: Internal terminal block.
Process Connections: $1 / 8^{\prime \prime}$ female NPT. Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.
Set Point Adjustment: Screw type on top of housing
Weight: $2 \mathrm{lb} 15.7 \mathrm{oz}(1.35 \mathrm{~kg})$. Agency Approvals: ATEX, CE, CSA, FM, IECEX, UL.

| MODEL CHART |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UL, CSA, FM <br> Model | Price | ATEX <br> Model | Price | Range in w.c. | Approximate Deadband |  |
|  |  |  |  |  | Min. Set Point | Max. Set Point |
| 1950G-00-B-24-NA | \$223.00 | 1950G-00-B-24 | \$307.00 | . 07 to 15 | . 04 | . 06 |
| 1950G-0-B-24-NA | 223.00 | 1950G-0-B-24 | 307.00 | . 15 to .50 | . 06 | . 11 |
| 1950G-1-B-24-NA | 223.00 | 1950G-1-B-24 | 307.00 | . 4 to 1.6 | . 11 | . 29 |
| 1950G-5-B-24-NA | 223.00 | 1950G-5-B-24 | 307.00 | 1.4 to 5.5 | . 4 | . 9 |
| 1950G-10-B-24-NA | 223.00 | 1950G-10-B-24 | 307.00 | 3 to 11 | . 9 | 1.8 |
| 1950G-20-B-24-NA | 223.00 | 1950G-20-B-24 | 307.00 | 4 to 20 | 1.2 | 3.0 |

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[^0]:    240 VAC Models: 1950G-XX-B-240-NA, \$260.25; 120 VAC Models: 1950G-XX-B-120-NA, \$223.00

