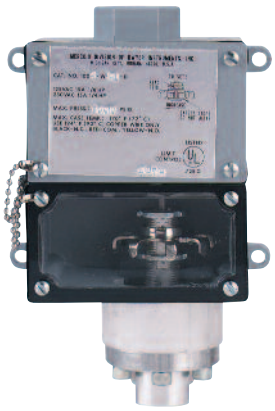
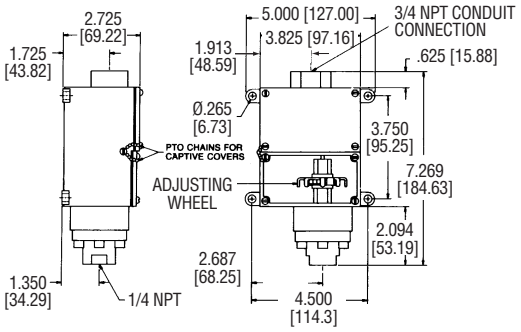
Series 1000W Diaphragm Operated Pressure Switches

Installation and Operating Instructions





This control is operated by a negative-rate Bellville spring-augmented diaphragm.

Location and Mounting
Select a location recommended by the equipment manufacturer. Use the four (4) lugs on the case to mount the control on a panel or smooth wall surface, or mount directly by the pressure connection.

The control is not position-sensitive and may be mounted in any position. However, vertical is preferred when there is a possibility of sludge accumulation or condensed water freezing in the pressure chamber.

Pressure Connection
The pressure connection is a standard female 1/4″ NPT taper pipe thread. Pipe thread sealant tape or pipe thread sealant should be used to assure a pressure-tight joint.

Wiring
A 3/4″ conduit connection is provided for wiring. Wire in accordance with local electrical codes or equipment manufacturer's instructions. Use a short piece of BX between rigid conduit and control so that control will not be subject to the stress of conduit expansion and contraction. Electrical ratings are shown on the label.
DO NOT OVERLOAD

Setting Operating Point
Remove the transparent cover over the adjusting wheel. Move the wheel by hand to the desired pressure on the vertical scale. If the adjusting wheel is difficult to move, a small screwdriver inserted in the adjusting wheel arms will provide extra leverage. A stop is provided at the top and bottom of the scale to prevent setting beyond the control's range. Dial markings are for the High operating point. Switch will reset at a lower pressure. Dial markings are a guide for setting. Actual setting should be checked with a good pressure gage.

Warning: A failure resulting in injury or damage may be caused by overpressures, excessive vibration or pressure pulsation, excessive temperature, corrosion of pressure-containing parts and movement assembly, electrical overload or other misuse.

SPECIFICATIONS
Wetted Materials: Aluminum pressure chamber with polyimide diaphragm or 316 SS pressure chamber with FEP diaphragm.
Temperature Limits: -30 to 170°F (-35 to 77°C).
Pressure Limit: 3000 psig (206.8 bar).
Enclosure Rating: Weatherproof, meets NEMA 4X.
Switch Type: SPDT snap switch.
Electrical Rating: 15A @ 125/250 VAC resistive.
Wiring Connections: Screw type.
Conduit Connection: 3/4″ female NPT.
Process Connection: 1/4″ female NPT.
Mounting Orientation: Any position.
Set Point Adjustment: Internal thumbwheel.
Weight: 3 lb (1.4 kg).
Deadband: See chart
Agency Approvals: CE, UL.

Note: When used on steam, a pigtail siphon and Type 3 (FEP) diaphragm should be used. Maximum case ambient temperature: 170° F (76.7° C).

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Operating Rages/Deadband			
Range No.	**psig (bar)**	**Approx. Deadband (fixed)* psig (bar)**	**Max. press. without bursting psig (bar)**
3	5-40 (0.34 - 2.76)	2 (0.14)	3000 (206.7)
4	10-70 (0.69 - 4.82)	4 (0.28)	3000 (206.7)
5	25 - 200 (1.72 - 13.78)	8 (0.55)	3000 (206.7)
6	50 - 350 (3.45 - 24.12)	15 (1.03)	3000 (206.7)
7	75 - 550 (5.17 - 37.90)	30 (2.07)	3000 (206.7)
8	100 - 900 (6.89 - 62.01)	50 (3.45)	3000 (206.7)
9	200 - 1400 (13.78 - 96.46)	75 (5.17)	3000 (206.7)

* Deadband is 10% larger when using 316SS diaphragm or Code F switch.

Electrical Rating										
		AC Capacity			**DC Capacity**		**Horse Power**			
							AC		**DC**	
Code	**No. Switches Action**	**125V**	**250V**	**480V**	**125V**	**250V**	**125V**	**250V**	**125V**	**250V**
D	1 Snap SPDT	15A	15A	NA			1/8	1/4	NA	NA
J	1 Snap SPDT	15A	15A	15A	0.5A (2)	0.25A (2)	1/8	1/4	NA	NA

Note (2) Resistive