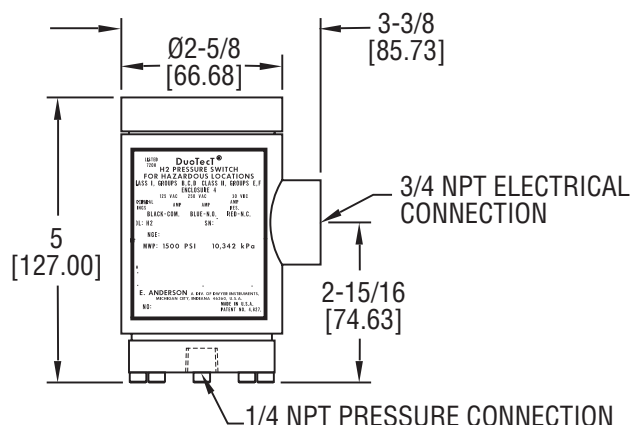




## Series H2 Dual-Action Explosion-Proof Pressure Switches

### Specifications - Installation and Operating Instructions



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**Accurate, dependable long-lived operation** results from the built-in quality of Duotect® pressure switches. They are designed for sequencing work where two different actions are to be triggered, as pressure of a liquid or gas increases or decreases. This permits control and protection of many types of equipment and systems subject to pressure variations. The patented design consists of two pistons in a concentric arrangement, operated by a single diaphragm with one pressure chamber. Each piston actuates a separate switch independent of the other. The switches may be adjusted to operate together, or at opposite ends of the range, or at any two intermediate setpoints. They can be easily field adjusted. For quick maintenance, the threaded top is removed to adjust or service switches without disturbing electrical or pressure connections. The controls are UL and CSA Listed as Explosion Proof, Class I, Groups B, C, D, Class II groups E, F & G, and weatherproof NEMA-4.

Expanded Listings. Consult factory for models that are UL Listed (not CSA) Explosion-proof Class I, Groups A, B, C, & D; Class II, Groups E, F, & G; Weatherproof, NEMA-4X. Contacts rated 10 amp @ 125/250 VAC, 5 amps @ 30 VDC.

### SPECIFICATIONS

**Wetted Materials:** See model chart on next page.

**Temperature Limit:** 275°F (135°C). CSA approved -20 to 90°C (-4 to 184°F).

**Pressure Limit:** 1500 psig (103 bar).

**Enclosure Rating:** UL listed explosion-proof, Class I, Groups B, C, and D. Class II Groups E, F, and G.  $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq 75^{\circ}\text{C}$  T6 (optional  $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq 40^{\circ}\text{C}$  T5) Type 4.

**Switch Type:** One or two SPDT snap switches.

**Electrical Rating:** 5A @ 125/250 VAC. 5A res., 3 A ind. @ 30 VDC. MV option: 1A @ 125 VAC, 1A res. or .5A ind. @ 30 VDC. Optional 10A switch-consult factory.

**Electrical Connections:** 18 AWG, 18" (460 mm) long.

**Conduit Connection:** 3/4" female NPT.

**Process Connection:** 1/4" female NPT.

**Mounting Orientation:** Any position.

**Set Point Adjustment:** Internal nut.

**Weight:** 2 lb (0.9 kg).

**Deadband:** Approximately 10% of range.

## Model Chart - Series H2

<b>Example</b>	<b>H2</b>	<b>S</b>	<b>2</b>	<b>MV</b>	H2S-2-MV weatherproof and explosion-proof pressure control; 316SS chamber with FEB diaphragm and Buna-N O-rings, dual switch, adjustable range; low: 25-250 psig (1.72-17.2 bar), high: 30-400 psig (2.07-27.6 bar), gold contact snap switch for dry circuits.
<b>Construction</b>	<b>H2</b>				Series designator, weatherproof and explosion-proof
<b>Wetted Material Options</b>		<b>A</b>			Aluminum chamber with Mylar diaphragm and Buna-N O-rings
		<b>B</b>			Brass chamber with Mylar diaphragm and Buna-N O-rings
		<b>S</b>			316SS chamber with FEB diaphragm and Buna-N O-rings
<b>Adjustable Operating Range</b>			<b>1</b>		Dual switch, adjustable range; low: 3-40 psig (0.21-2.76 bar), high: 5-75 psig (0.35-5.17 bar)
			<b>1S</b>		Single switch, adjustable range 3-75 psig (0.21-5.17 bar)
			<b>2</b>		Dual switch, adjustable range; low: 25-250 psig (1.72-17.2 bar), high: 30-400 psig (2.07-27.6 bar)
			<b>2S</b>		Single switch, adjustable range 25-400 psig (1.72-27.6 bar)
			<b>3</b>		Dual switch, adjustable range; low: 100-1000 psig (6.89-68.9 bar), high: 150-1500 psig (10.3-103 bar)
			<b>3S</b>		Single switch, adjustable range 100-1500 psig (6.89-103 bar)
<b>Options</b>				<b>CSA</b>	CSA approved construction
				<b>MV</b>	Gold contact snap switch for dry circuits
				<b>VIT</b>	Fluorocarbon O-rings
				<b>EPDM</b>	EPDM O-rings
				<b>FEB</b>	FEB diaphragm option where not standard

## INSTALLATION

1. Connect pressure switch to supply pressure. (1/4" female NPT connection.)
2. Run connecting wires through external conduit and connect. (3/4" NPT connection).
3. Color coding legend is as follows:  
 Black: Common  
 Red: Normally Closed with no pressure in the system.  
 Blue: Normally Open with no pressure in the system.
4. The individual wires are tagged as follows:  
 CO1 - Common for #1 Pressure Adjustment.  
 (High Range).  
 NC1 - Normally Closed for #1 Pressure Adjustment.  
 (High Range).  
 NO1 - Normally Open for #1 Pressure Adjustment.  
 (High Range).  
 CO2 - Common for #2 Pressure Adjustment.  
 (Low Range).  
 NC2 - Normally Closed for #2 Pressure Adjustment.  
 (Low Range).  
 NO2 - Normally Open for #2 Pressure Adjustment.  
 (Low Range).

## PRESSURE ADJUSTMENT PROCEDURE

The #1 pressure adjustment (see Figure 1) is for the high range of the switch. The #2 adjustment is for the low range. Due to the configuration of the concentric pistons, the #1 setting must always be the higher of the two.

To adjust the switch, connect it to a source of controlled pressure such as a hand pump or a regulated fluid supply.

1. Set the high range switch #1 by screwing the elastic stop nut up or down as required to obtain switch actuation at the desired pressure. Be sure to set the switch with the pressure moving in the proper direction: that is, switch actuation on an increasing pressure or on a decreasing pressure as required by the application.

2. Set the low range switch #2 in the same manner.

**NOTE:** The 4-40 micro switch adjustment screws are factory set and should not be changed.

## WARRANTY

We guarantee our products to be free from defects in workmanship or material, and will, without charge, at our option, replace or repair within one year from date of shipment from our factory any product that may be found defective upon inspection at our factory. Product to be returned transportation charges prepaid. This guarantee does not obligate us where product has been subject to careless handling, improper application or faulty installation, and we expressly disclaim any obligation, guaranty or liability whatsoever except as above stated.

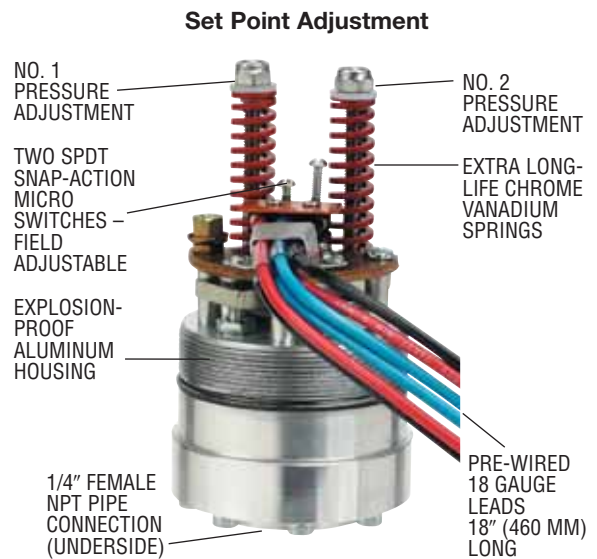


Figure 1