

## **Explosion-Proof Differential Pressure Switches**Setpoints from 10" w.c. to 200 psid — Rated 1500 psig, Weatherproof







COVER SET SCREW COVER 3/4 NPT CONDUIT CONNECTION Ø11/64 [Ø4.37] MOUNTING HOLES IN MTG BRACKET 2-13/32 [61.12] 5-3/8 CONNECTION 1-3/4 1-25/32 [24.61] 3-9/16 [45.24] [44.45] OPTIONAL DRAIN — PROCESS CONNECTION 1/8 NPT [90.49] HIGH PRESSURE CENTERLINE CONNECTION [101.6]

Explosion-proof, heavy duty, industrial unit has a unique new design which provides sensitivity to differential pressures as low as 10 inches of water (254 mm w.c.), yet handles total pressure of 1500 psi (103 bar). Unlike common differential pressure switches that use a piston-type motion transfer, the Series H3 utilizes a rotary motion transfer shaft that prevents a change in total pressure from causing a setpoint shift. Unit yields deadbands approximately 5% of range, with zero setpoint shift due to variation in working pressures. Friction is minimized and repeatability increased by allowing range spring to act directly on diaphragm plate. Rolling diaphragm design maintains constant effective area to further reduce friction. Diaphragm is allowed to "seat", allowing application of full rated pressure, up to 1500 psi (103 bar), on either high or low pressure port, without damage. Special overtravel feature prevents overtightening of range adjust screw. Choose optional 316SS chamber for water and water-based fluids or harsher applications.

## **SPECIFICATIONS**

Wetted Materials: See pressure chamber and diaphragm material in model chart.

Temperature Limit: -4 to 220°F (-20 to 104°C), ATEX: -20 to 90°C (-4 to 194°F).

Pressure Limit: 1500 psig (103 bar). Enclosure Rating: Standard meets NEMA 4X (IP56), drain option meets NEMA 3 (IP54). For hazardous use see the hazardous location ratings

Switch Type: SPDT or DPDT snap

switch.

Electrical Rating: 5A @ 125/250 VAC,

Electrical Connections: See model

chart.

Conduit Connection: 3/4" female

Process Connection: 1/8" female

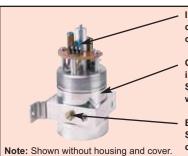
Mounting Orientation: Vertical Set Point Adjustment: Internal screw.

Weight: 4 lb, 2 oz (2 kg). Deadband: Approximately 5% of

Agency Approvals: UL, CSA, CE, and

ATEX see ratings chart.

Hazardous Location Ratings										
Model	UL	CSA	Directive 94/9/EC ATEX							
			Compliant							
H3 C	_	_	<b>C €</b> 0344 <b>(</b> Ex <b>)</b>							
			II 2 G EEx d IIB							
			-20°C≤ T amb ≤ 75°C T6							
			EC-Type Certificate No.							
			KEMA 03ATEX 2584							
H3 L	Cl. I, Gr.B, C & D	Cl. I, Gr.B, C & D	_							
H3 T	CI. II, Gr.E, F & G	CI. II, Gr.E, F & G								
H3 C-DRAIN			<b>C €</b> 0344 ⟨Ex⟩							
	_	_	II 2 G EEx d IIB							
			-20°C≤ T amb ≤ 75°C T6							
			EC-Type Certificate No.							
			KEMA 03ATEX 2584							
H3 L-DRAIN	Cl. I, Gr.B, C & D	_	_							
	CI. II, Gr.E, F & G									



Internal terminal blocks for conductors up to 18 gauge are optional.

Optional NEMA 3 (IP 54) housing includes explosion-proof drain. Standard NEMA 4X (IP 56) version is without drain.

**External Ground Connection** Standard — Internal ground connection also standard - use either one.

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Example	H3	S	2	S	C	MV	H3S-2SC-MV Differential Pressure Control;
							316 SS pressure chamber and
							Fluoroelastomer diaphragm; weatherproof and
							ATEX; SPDT snap action switch with gold
							contacts; fixed deadband, automatic reset;
							adjustable range 0.5-15 psid
Construction	НЗ						Series designator, weatherproof and
							explosion-proof
Pressure		Α					Aluminum chamber with Nitrile diaphragm
Chamber &		S					316 SS chamber with Fluoroelastomer
Diaphragm							diaphragm
Material							
(Wetted)							
Adjustable			1				Adjustable range 10-180 in. w.c.
Operating							(2.48-44.78 kPa)
Range			2				Adjustable range 0.5-15 psid
							(0.03-1 bar)
			3				Adjustable range 5-70 psid
							(.34-4.8 bar)
			4				Adjustable range 10-200 psid
							(.7-13.8 bar)
Circuit			Г	S			SPDT snap action switch rated 5A @ 125/250
(Switch)							VAC, 30 VDC
Options				Ь			DPDT snap action switch rated 5A @ 125/250
							VAC, 30 VDC
Electrical			Г		L		18 AWG x 18 inch lead wires
Connection					Т		UL, CSA approved internal terminal block
Options							, , , , , , , , , , , , , , , , , , , ,
- P.I.O.I.O					c		ATEX approved internal terminal block
						DRAIN	Housing with drain - allows condensate to be
							drained from inside enclosure (meets NEMA 3
							instead of 4X)
						MV	Gold contacts on snap switch for dry circuits
							rated 1A @ 125 VAC, 1A resistive or 0.5 A
							inductive @ 30 VDC
						VIT	Fluoroelastomer diaphragm option where
						• 1 1	not standard
							not otalidald