



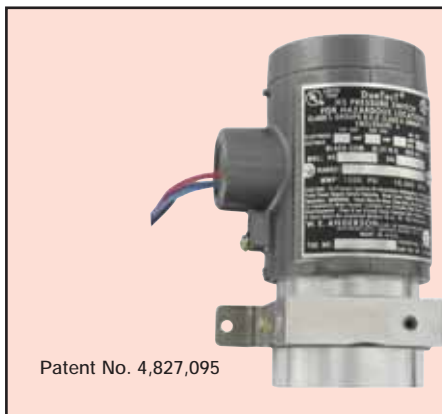
Series H3

Explosion-Proof Differential Pressure Switches

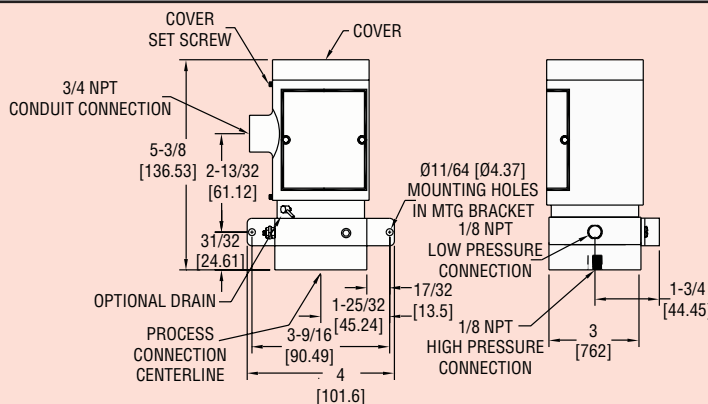
Setpoints from 10" w.c. to 200 psid – Rated 1500 psig, Weatherproof



Pressure



Patent No. 4,827,095



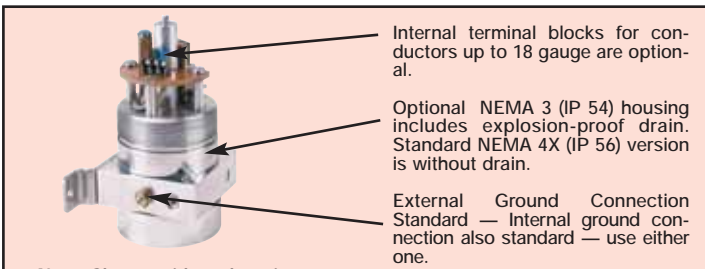
Explosion-proof, heavy duty, industrial unit has patented and unique new design which provides sensitivity to differential pressures as low as 10 inches of water (254 mm w.c.), yet handles total pressure of 1500 psi (103 bar). Unlike common differential pressure switches that use a piston-type motion 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:** See ratings chart.
- Switch Type:** SPDT or DPDT snap switch.
- Electrical Rating:** 5A @ 125/250 VAC, 30 VDC.
- Electrical Connections:** See model chart.
- Conduit Connection:** 3/4" female NPT.
- Process Connection:** 1/8" female NPT.
- Mounting Orientation:** Vertical.
- Set Point Adjustment:** Internal screw.
- Weight:** 4 lb, 2 oz (2 kg).
- Deadband:** Approximately 5% of range.
- Agency Approvals:** UL, CSA, CE, and ATEX see ratings chart.

HAZARDOUS LOCATION/WEATHERPROOF RATINGS

MODEL	UL	CSA	Directive 94/9/EC ATEX Compliant
H3 _ _ _ C	—	—	CE 0344 Ex II 2 G EEx d IIB -20°C ≤ T amb ≤ 75°C T6 EC-Type Certificate No. KEMA 03ATEX 2584
H3 _ _ _ L H3 _ _ _ T	Cl. I, Gr.B, C & D Cl. II, Gr.E, F & G NEMA 4X	Cl. I, Gr.B, C & D Cl. II, Gr.E, F & G NEMA 4	—
H3 _ _ _ C-DR	—	—	CE 0344 Ex II 2 G EEx d IIB -20°C ≤ T amb ≤ 75°C T6 EC-Type Certificate No. KEMA 03ATEX 2584
H3 _ _ _ L-DR	Cl. I, Gr.B, C & D Cl. II, Gr.E, F & G NEMA 3	—	—



Note: Shown without housing and cover.

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.

- Model H3A-1SL
- Model H3A-2SL
- Model H3A-3SL
- Model H3S-1SL
- Model H3S-2SL
- Model H3S-3SL
- A-610-Pipe Mounting Kit for 1-1/4 to 2" pipe

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	H3						Series designator, weatherproof and explosion-proof
Pressure Chamber & Diaphragm Material (Wetted)		A					Aluminum chamber with Nitrile diaphragm
		S					316 SS chamber with Fluoroelastomer diaphragm
Adjustable Operating Range			1				Adjustable range 10-180 in. w.c. (2.48-44.78 kPa)
			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)
Deadband approximately 5% of range							Maximum pressure for all ranges is 1500 psi (103 bar)
Circuit (Switch) Options				S			SPDT snap action switch rated 5A @ 125/250 VAC, 30 VDC
				D			DPDT snap action switch rated 5A @ 125/250 VAC, 30 VDC
Electrical Connection					L T C		18 AWG x 18 inch lead wires UL, CSA approved internal terminal block
Options						DRAIN	ATEX approved internal terminal block 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 not standard



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