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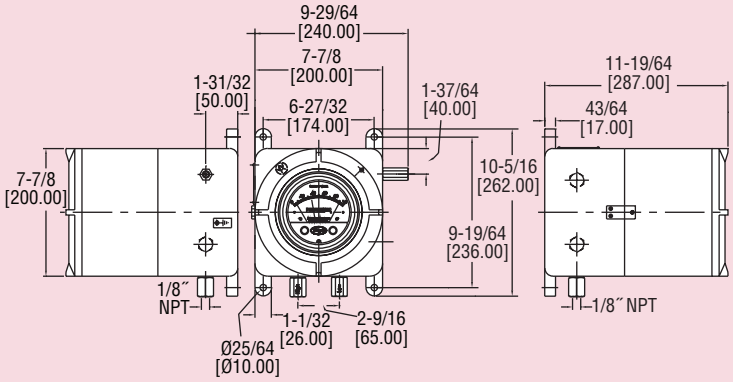
Series AT3 A3000

ATEX Approved Photohelic® Switch/Gages with 120, 240 or 24 VAC Power

Photohelic® Switch/Gages in Flame-Proof ATEX Enclosures



Flame-proof ATEX approved **Photohelic® Switch/Gages, Series AT3A3000,** function as versatile, highly repeatable pressure switches combined with a precise pressure gage employing the time-proven Magnehelic® gage design. The Photohelic® switch/gage measures and controls positive, negative or differential pressures of air and compatible gases. Standard models are rated to 25 psig (1.7 bar) with options to 35 psig (2.4 bar) or 80 psig (5.5 bar). Two phototransistor actuated, DPDT relays are included for low/high limit control. Easy to adjust set point indicators are controlled by knobs located on the gage face (accessible opening case after de-energizing instrument). Set points can be interlocked to provide variable dead band – ideal for control of fans, dampers, etc. Gage reading is continuous and unaffected by switch operation, even during loss of electrical power. Flame-proof ATEX enclosures are available in aluminum with glass window which allows for viewing of set point needles and process pressure.

Important notes for installation:

- Cables must be fitted through 1/2″ NPT cable gland or ATEX conduit (not supplied with instrument).
- Make sure after cabling to close tight cover and cable gland, in order to keep IP66 rating (IP65 with option OPV, overpressure relief valve).
- Open cover only after de-energizing instrument.
- **Attention:** Check local safety rules and warnings on unit and manual for a correct use of the instrument in hazardous area.

SPECIFICATIONS

Service: Air and non-combustible, compatible gases.
Wetted Materials: Consult factory.
Accuracy: ±2% of FS at 70°F (21.1°C); ±3% on -0 and ±4% on -00 models.
Pressure Limits: -20 in Hg to 25 psig (-0.677 to 1.72 bar). MP option; 35 psig (2.41 bar), HP option; 80 psig (5.52 bar).
Temperature Limits: 20 to 120°F (-6.67 to 48.9°C) LT low temperature option to -20°F available; Case: -58 to 140°F (-50 to 60°C) (**Note:** Product temperature limits differ from case).
Dial Size: 4″ (101.6 mm).
Mounting Orientation: Diaphragm in vertical position.
Set Point Adjustment: Adjustable knobs on Photohelic® gage face behind enclosure cover. Follow instructions and safety warnings to open cover.

SWITCH SPECIFICATIONS

Switch Type: Each setpoint has 2 Form C relays (DPDT).
Repeatability: ±1% of FS.
Electrical Rating: 10 A @ 28 VDC, 10 A @ 120, 240 VAC.
Electrical Wiring: Screw terminals.
Power Requirements: 120 VAC, 50/60 Hz; 240 VAC & 24 VAC power optional.

Enclosure Rating: IP66. IP65 with option OPV, overpressure relief valve.
Housing material: Aluminum.
Finishing: Texture epoxy coat RAL7038.
Pressure Connections: 1/8″ NPT female brass (SS optional). In presence of acetylene it is necessary to use SS.
Electrical Connections: Three 1/2″ FNPT. Cable gland not included.
Weight: 28.4 lb (12.9 kg).
ATEX Approved Products from Comhas with ECN: NEMKO 10ATEX1096.
Agency Approvals: CE 0470 Ex II2 GD Ex d IIC Gb T6; -50°C ≤ Ta ≤ +60°C Ex tb IIIC Db T 85°C.

Series	AT3A3xxx-xx										
Options		-120 VAC									Power requirement 120 VAC
		-240 VAC									Power requirement 240 VAC
		-24 VAC									Power requirement 24 VAC
			-X								Standard -25 in Hg to 25 psig
			-MP								Medium pressure max. static 35 psig
			-HP								High pressure max. static 80 psig
				X							Standard silicone construction
					X						Standard temperature 20 to 120°F
					LT						Low temperature to -20°F
Housing Material						-A					Aluminum
Housing Options							B				Blind
							O				Glass cover
								1			1/8″ NPT female brass ports
								2			1/8″ NPT female SS ports
									X		Standard without overpressure relief valve
									OPV		Overpressure relief valve
										T2	Material same as ports SS information label

Range Chart

Model	Range, in w.c.
A3000-00	0 to .25
A3000-0	0 to .50
A3001	0 to 1.0
A3002	0 to 2.0
A3003	0 to 3.0
A3004	0 to 4.0
A3005	0 to 5.0
A3006	0 to 6.0
A3008	0 to 8.0
A3010	0 to 10
A3015	0 to 15
A3020	0 to 20
A3025	0 to 25
A3030	0 to 30
A3040	0 to 40
A3050	0 to 50
A3060	0 to 60
A3080	0 to 80
A3100	0 to 100
A3150	0 to 150

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