

Technical Data for **P-Series** Pressure Meters

0.07–3000 PSI full scale in absolute, gauge, or differential pressure applications

Standard specifications. Consult Alicat for available options.

SENSOR PERFORMANCE	
Accuracy at Calibration Conditions ¹	±0.25% of full scale
High Accuracy Option	±0.125% of full scale
Repeatability (2σ) ¹	±0.08% of full scale
Temperature Sensitivity ²	Zero shift: 0.02% of full scale per °C from tare temperature Span shift: 0.02% of full scale per °C from calibration temperature
Operating Temperature Range	-10–60°C
Sensor Response Time	<1 ms
Typical Indication Response Time	<10 ms
Typical Warm-Up Time	<1 s

1 Stated accuracy is after tare under equilibrium conditions; includes repeatability and linearity. Please consult an application engineer when full scale is ranged below 2 inH₂O (0.07 PSI).

2 For absolute pressure devices, tare is only available when the optional barometer package installed.

MECHANICAL	
Gas Compatibility ³	Compatible with all non-corrosive gases, check wetted materials
Burst Pressure	0.07–100 PSI: 3× full scale 500–3000 PSI: 1.5× full scale
Maximum Allowed Common Mode Pressure (Differential Pressure Devices Only)	200 PSIG (750 PSIG for the 500 PSID sensor)
Mounting Attitude Sensitivity	None
Mounting Tap Screw Size	2× 8-32 UNC tapped holes with a depth of 0.350" [8.89 mm]
Ingress Protection	IP40 (consult Alicat for weatherproofing options)
Humidity Range	0–95%, non-condensing
Wetted Materials	303, 304, and 316L stainless steel; FKM, alumina ceramic, glass, gold, heat-cured epoxy, heat-cured silicone rubber, polyamide, glass reinforced polyphenylene sulfide, silicon
Process Connection ⁴	1/8" NPT female

3 For aggressive gases, please see our PS-Series pressure devices. Please contact Alicat when using with water and other liquid applications.

4 Consult Alicat for available process connection options, such as: Compression, face seal, push-to-connect, BSPP, SAE, or Swagelok® (including tube, VCO®, and VCR®-compatible).

COMMUNICATIONS	
Display Options	Monochrome LCD or color TFT displays pressure and configuration
Analog Output Options ⁵	4–20 mA, 0–5 Vdc, 1–5 Vdc, 0–10 Vdc
Digital I/O Options	RS-232 serial (default) RS-485 serial, Modbus RTU (over RS-232 or RS-485 serial), Modbus TCP/IP, DeviceNet, EtherCAT, EtherNet/IP, PROFIBUS Portable devices (PB models): Serial over Micro-USB
Electrical Connection Options	8-pin mini-DIN by default, 8-pin M12, DB-9, DB-15, 6-pin locking (contact Alicat for custom pinouts) Portable devices (PB models): Power over Micro-USB Type B
Power Requirements ⁶	0–5 Vdc output: 9–28 Vdc, 40 mA 0–10 Vdc output: 12–28 Vdc, 40 mA 4–20 mA output: 12–28 Vdc, 80 mA Portable devices (PB models): 5 Vdc, 1 A recommended via an outlet adapter to USB.
Digital Data Update Rate ⁶	40 Hz at 19200 baud
Analog Data Update Rate	1 kHz
Display Update Rate	10 Hz
Analog Signal Accuracy	±0.1% of full scale additional uncertainty

5 Analog outputs are unavailable on portable devices (PB Series).

6 Consult the individual operating bulletins for specific industrial protocol power requirements and data transmission specifications.

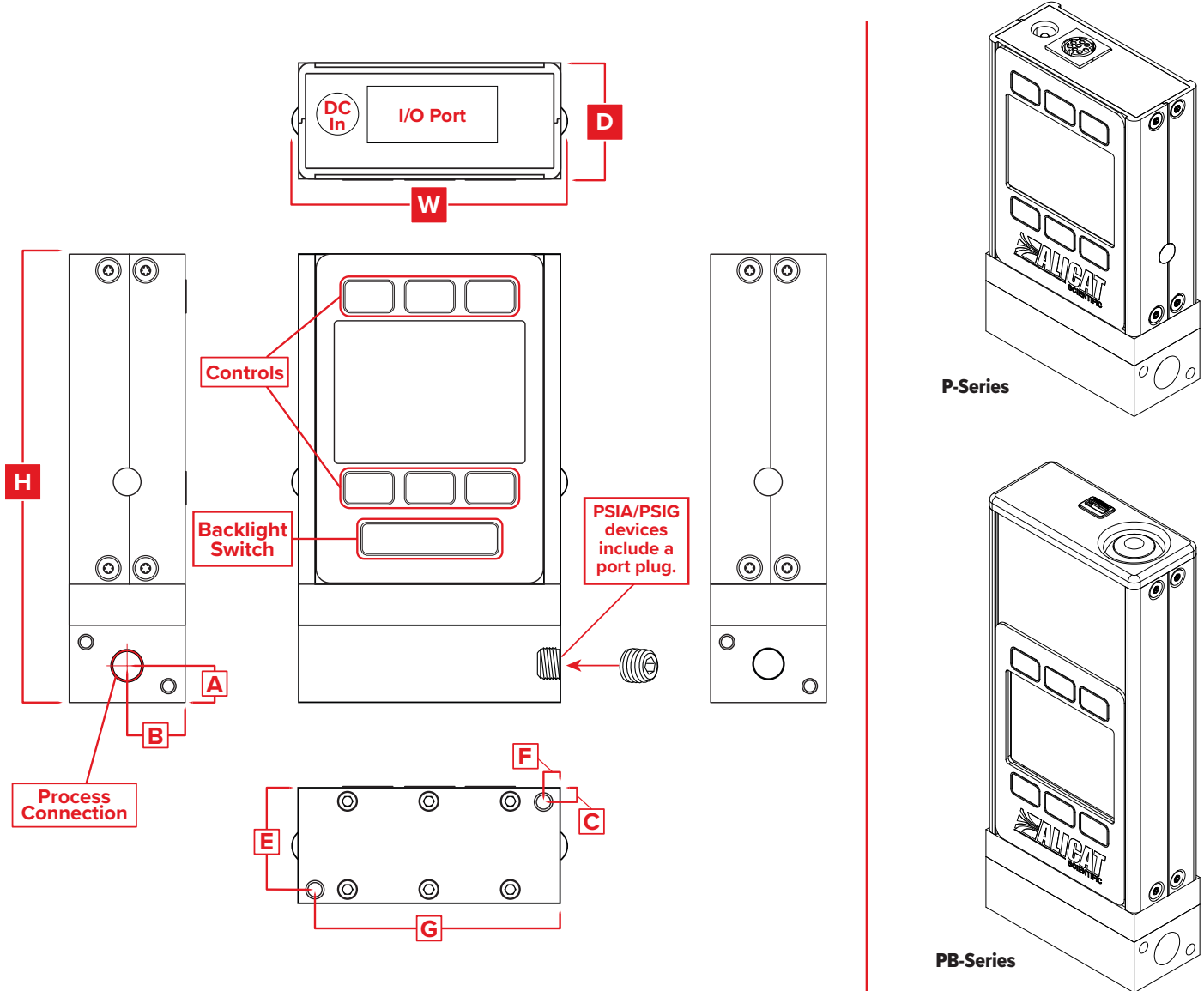
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STANDARD AVAILABLE RANGES ⁷											
Pressure Range Unit	2 inH ₂ O	1 PSI	5 PSI	15 PSI	30 PSI	100 PSI	500 PSI	1000 PSI	1500 PSI	2000 PSI	3000 PSI
PSIA				✓	✓	✓	✓	✓	✓	✓	✓
PSIG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PSID	✓	✓	✓	✓	✓	✓	✓				

⁷ Other ranges are available, including negative gauge ranges. Please see our IVC Series instruments for deep vacuum applications.



DIMENSIONS ⁸									WEIGHT
Height	Width	Depth	A	B	C	E	F	G	
4.067 in	2.375 in	1.050 in	0.350 in	0.525 in	0.125 in	0.925 in	0.150 in	2.225 in	≈ 1.0 lb
103.30 mm	60.33 mm	26.67 mm	8.89 mm	13.34 mm	3.18 mm	23.50 mm	3.81 mm	56.52 mm	≈ 0.5 kg

⁸ Portable devices (PB Series) add 1.646" [41.81 mm] to height, and 0.2 lb. [90.72 g] to weight.