

Technical Data for P-Series Pressure Gauges



Alicat's P-Series pressure gauges accurately and rapidly measure the absolute pressure, gauge pressure or differential pressure of process gases and liquids.

Tel: 888-290-6060

www.alicat.com/pressure

Standard Specifications (Contact Alicat for available options.)

Performance	P-Series Gauges
Standard Accuracy	Consult Factory (when ranged < 2 inH2O)
	± 0.30% Full Scale (2 inH2O)
	± 0.25% (≥ 1 psi)
High Accuracy Option	± 0.125% (≥ 1 psi)
Repeatability	± 0.08% Full Scale
Zero Shift and Span Shift	0.02% Full Scale / °C
Operating Range / Turndown Ratio	0.5% to 100% Full Scale / 200:1 Turndown
Excess Pressure	128% Full Scale Measurable
Burst Pressure	3 X Full Scale (1.5 X Full Scale for ranges >500 psi)
Typical Response Time ¹	5 ms (Adjustable)
Warm-up Time	< 1 Second

1. Volumes, feed pressures, exhaust pressures and line sizing will determine the limits of response times.

Operating Conditions	P-Series Gauges
Gas Compatibility	Compatible with all non-corrosive gases ¹
Operating Temperature	-10 to +60 °Celsius
Common Mode Pressure (Differential Pressure Units Only)	200 psig
Mounting Attitude Sensitivity	None
Ingress Protection	IP40
Wetted Materials	For pressures under 300 psi: 303 & 302 Stainless Steel, Viton®, Heat Cured Silicone Rubber, Glass Reinforced Polyphenylene Sulfide, Heat Cured Epoxy, Aluminum, Gold, Silicon, Glass. For pressures 300 psi and higher: 303 & 316L stainless steel, Viton®. If your application demands a different material, please contact Alicat.

1. For aggressive gases, please see our PS-Series pressure gauges. For use with water or other liquids please contact Alicat.

Communication / Power	P-Series Gauges
Monochrome LCD or Color TFT Display with integrated touchpad	Displays Pressure
Digital Communications Options ¹	RS-232 Serial, RS-485 Serial, DeviceNet, EtherCAT, EtherNet/IP, Modbus RTU, Modbus TCP/IP, PROFIBUS
Analog Signal ² Options	0-5 Vdc / 1-5 Vdc / 0-10 Vdc / 4-20 mA
Optional Secondary Analog Output Signal ²	0-5 Vdc / 1-5 Vdc / 0-10 Vdc / 4-20 mA
Electrical Connection Options	8 pin Mini-DIN, 9 pin D-sub (DB9), 15 pin D-sub (DB15), 6 pin locking, 8 pin M12
Supply Voltage	7-30 Vdc (15-30 Vdc for 4-20 mA outputs)
Supply Current	0.040 Amp

1. The **Digital Output Signal** communicates Pressure

2. The **Analog Output Signal** and **Optional Secondary Analog Output Signal** communicate Pressure.

Range Specific Specifications

Pressure Product	Mechanical Dimensions ¹	Process Connections ²
P Series Gauges	4.1"H x 2.4"W x 1.1"D	1/8" NPT Female

1. See drawings for metric equivalents.

2. Compatible with Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings. VCR and SAE connections upon request.

Standard Available Ranges

P-Series Gauges		
-15 psig to 0 psig		
2 inH ₂ OD	2 inH ₂ OG	
1 psid	1 psig	
5 psid	5 psig	
15 psid	15 psig	15 psia
30 psid	30 psig	30 psia
100 psid	100 psig	100 psia
	500 psig	500 psia
	1000 psig	1000 psia
	1500 psig	1500 psia
	2000 psig	2000 psia
	3000 psig	3000 psia

Other ranges available. Please contact Alicat.

Available Units*			
Absolute	Gauge	Differential	Notes
PaA	PaG	PaD	pascal
hPaA	hPaG	hPaD	hectopascal
kPaA	kPaG	kPaD	kilopascal
MPaA	MPaG	MPaD	megapascal
mbarA	mbarG	mbarD	millibar
barA	barG	barD	bar
g/cm2A	g/cm2G	g/cm2D	gram force per square centimeter
kg/cmA	kg/cmG	kg/cmD	kilogram force per square centimeter
psia	psig	psid	pound force per square inch
psfa	psfg	psfd	pound force per square foot
mTorrA	mTorrG	mTorrD	millitorr
torrA	torrG	torrD	torr
mmHgA	mmHgG	mmHgD	millimeter of mercury at 0 C
inHgA	inHgG	inHgD	inch of mercury at 0 C
mmH2OA	mmH2OG	mmH2OD	millimeter of water at 4 C (NIST conventional)
mmH2OA	mmH2OG	mmH2OD	millimeter of water at 60 C
cmH2OA	cmH2OG	cmH2OD	centimeter of water at 4 C (NIST conventional)
cmH2OA	cmH2OG	cmH2OD	centimeter of water at 60 C
inH2OA	inH2OG	inH2OD	inch of water at 4 C (NIST conventional)
inH2OA	inH2OG	inH2OD	inch of water at 60 C
atm			atmosphere
m asl			meter above sea level (only in /ALT builds)
ft asl			foot above sea level (only in /ALT builds)

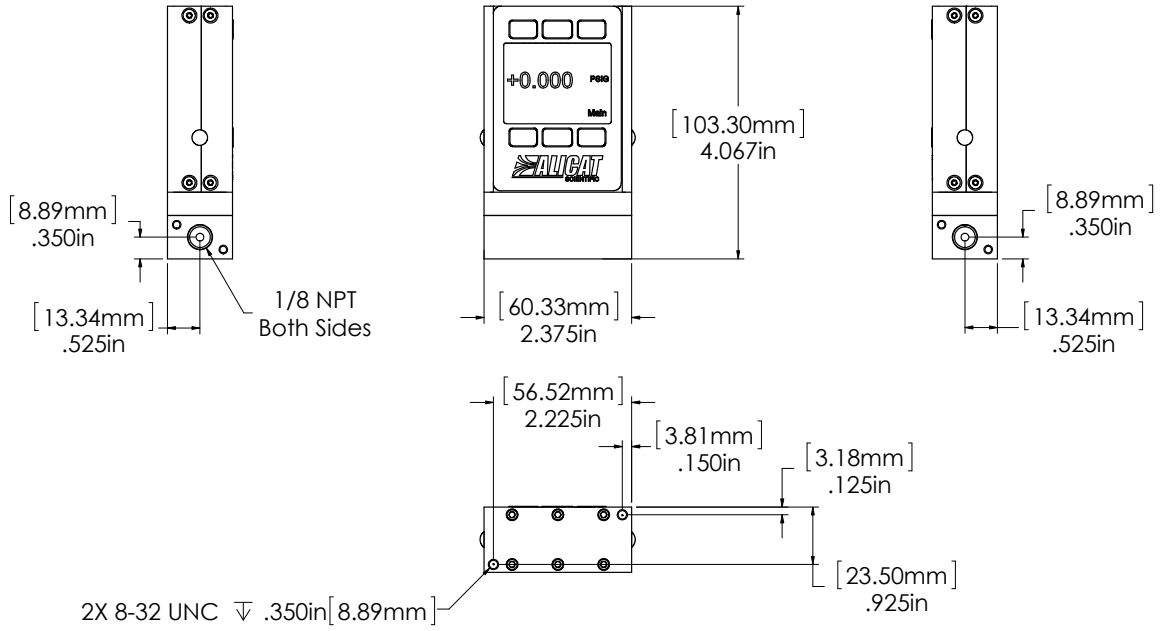
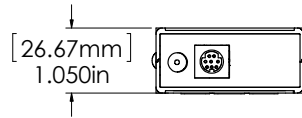
* Note that only units appropriate to your device will be available for selection.

P Series
All standard ranges



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P Series approximate shipping weight: 1.0lb