

Technical Data for **PCD, PCD3, PCRD, and PCRD3** Dual Valve Pressure Controllers



Tel: 888-290-6060

www.alicat.com/pressure

Alicat's **PCD** and **PCRD** Dual Valve Pressure Controllers accurately and efficiently control pressure within a closed system with a minimum loss of expensive gases through the exhaust process.

PCRD-Series pressure controllers are best for flows greater than 20 lpm.

PCD3 and **PCRD3-Series** pressure controllers are fitted with an external pressure port for sensing and controlling pressures at a remote point in the system.

Standard Specifications (Contact Alicat for available options.)

Performance	PCD & PCD3 Controllers	PCRD & PCRD3 Controllers
Full scale pressure < 2" H2O Accuracy	Consult Factory	
Full scale pressure ≥ 2" H2O Standard Accuracy	± 0.25%	
Full scale pressure ≥ 2" H2O High Accuracy Option	± 0.125%	
Repeatability	± 0.08% Full Scale	
Zero Shift and Span Shift	0.02% Full Scale / °Celsius	
Operating Range / Turndown Ratio	0.5% to 100% Full Scale / 200:1 Turndown	
Excess Pressure	102.4% FS Controllable	
Burst Pressure	3 X Full Scale	
Typical Response Time ¹	100 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	PCD & PCD3 Controllers	PCRD & PCRD3 Controllers
Gas Compatibility	Compatible with all non-corrosive gases ¹	
Operating Temperature	-10 to +60 °Celsius	
Common Mode Pressure (Differential Pressure Units Only)	150 psig	
Mounting Attitude Sensitivity	None	Mount with valve cylinders vertical & upright
Valve Type	Normally Closed	
Ingress Protection	IP40	
Wetted Materials	302 & 303 Stainless Steel, Viton®, Silicone RTV, Brass, 400 Series Stainless Steel, Silicon, Glass. If your application demands a different material, please contact Alicat.	

1. For aggressive gases, please see our PCDS and PCRDS-Series pressure controllers. For use with water or other liquids please contact Alicat

Communication / Power	PCD & PCD3 Controllers	PCRD & PCRD3 Controllers
Monochrome LCD or Color TFT Display with integrated touchpad	Displays Pressure	
Digital Input / Output Signal ¹ Options	RS-232 Serial / RS-485 Serial / ModBus / PROFIBUS ³	
Analog Input / Output Signal ² Options	0-5 Vdc / 1-5 Vdc / 0-10 Vdc / 4-20 mA	
Optional Secondary Analog Input/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	
Supply Voltage	12-30 Vdc (15-30 Vdc for 4-20 mA outputs)	24-30 Vdc
Supply Current	0.250 Amp	0.750 Amp

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

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

3. If selecting **PROFIBUS**, no analog signal is available. See PROFIBUS specifications for PROFIBUS supply voltages and currents. (www.alicat.com/profibus) PROFIBUS units do not have the display.

Mechanical Specifications

Dual Valve Controllers	Mechanical Dimensions	Process Connections ¹
PCD & PCD3 All Standard Ranges	4.1"H x 4.8"W x 1.1"D	1/8" NPT Female
PCRD & PCRD3 All Standard Ranges	5.5"H x 10.6"W x 2.3"D	3/4" NPT Female

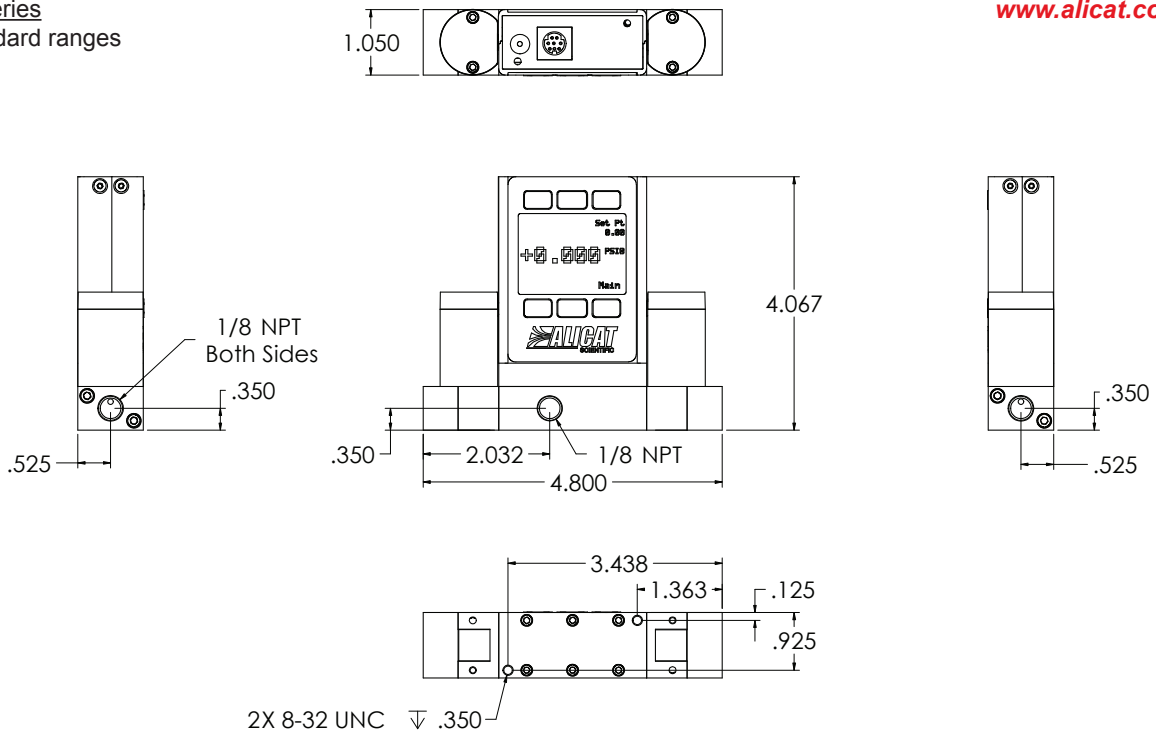
1. Compatible with Swagelok® tube, Parker®, face seal, push connect and compression adapter fittings. VCR and SAE connections upon request.

Standard Available Ranges

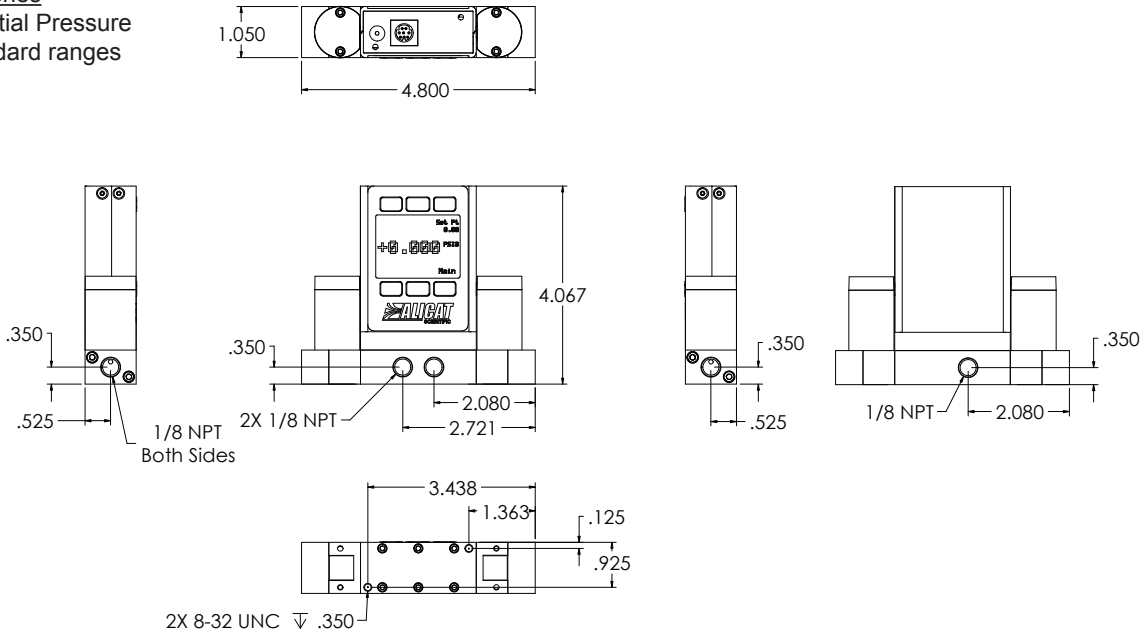
PCD, PCD3, PCRD and PCRD3 Pressure Controllers		
-15 psig to 0 psig		
2 inH ₂ OD	2 inH ₂ OG	
4 inH ₂ OD	4 inH ₂ OG	
1 psid	1 psig	
5 psid	5 psig	
15 psid	15 psig	15 psia
30 psid	30 psig	30 psia
100 psid	100 psig	100 psia
150 psid	300 psig	300 psia
	500 psig	500 psia
Other ranges available. Please contact Alicat		

Select One Unit of Measure when Ordering		
PSIA	inHG	Atm
PSIG	inH ₂ O	Torr
mmHG	mBar	kPa

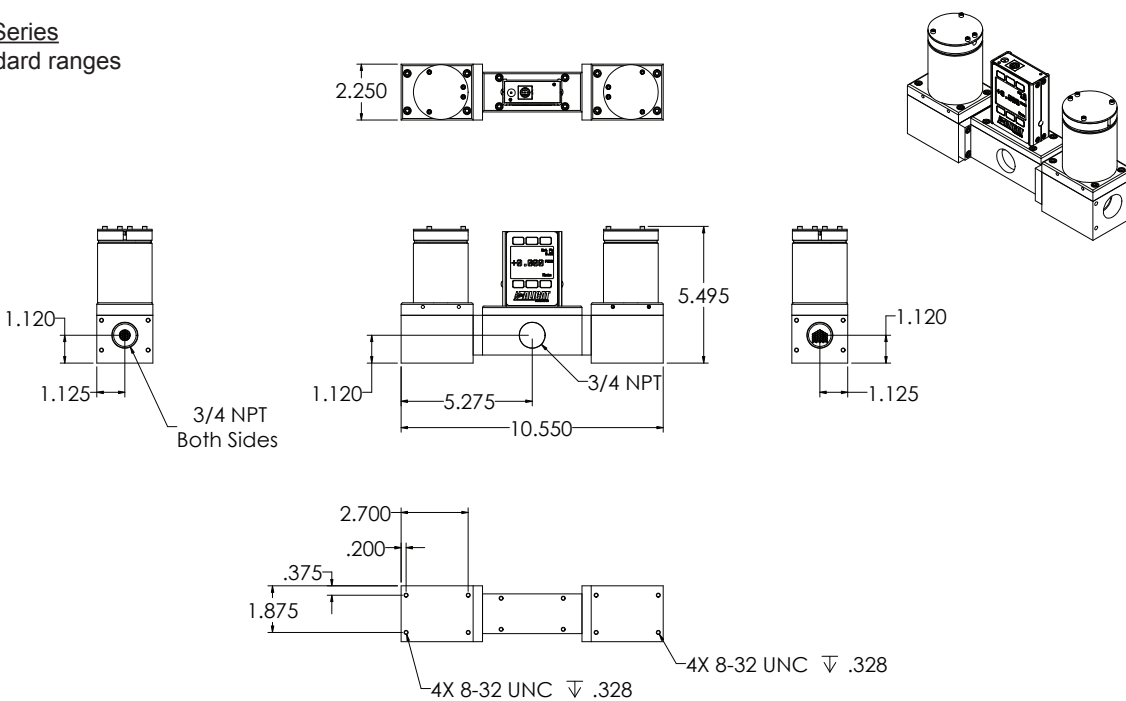
PCD-Series
All standard ranges



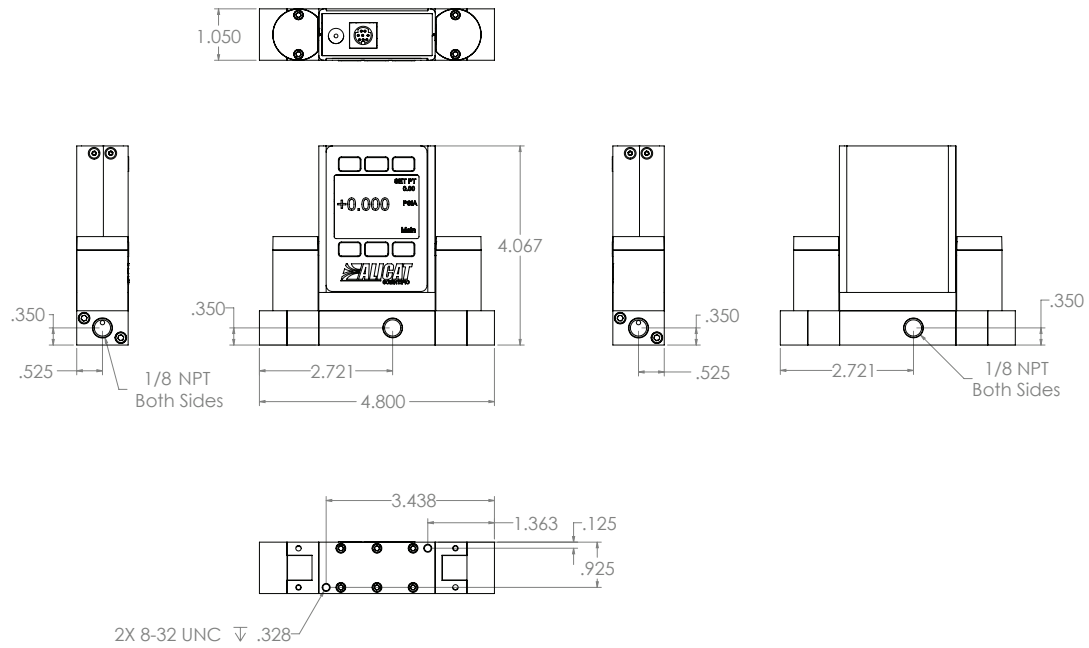
PCD-Series
Differential Pressure
All standard ranges



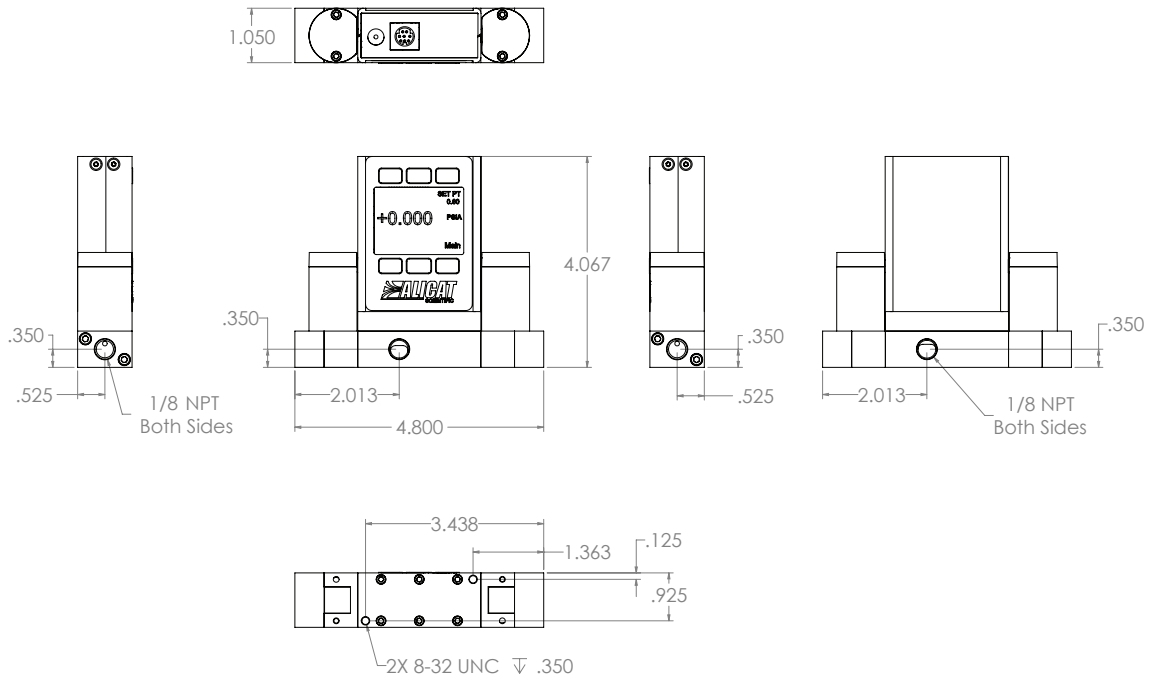
PCRD-Series
All standard ranges



PCD3
100PSIG



PCD3
500PSIA



PCRD3
15PSIG

