



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

+44 (0) 118 981 7339

info@appmeas.co.uk

<https://appmeas.co.uk>

PR3202 Dry/Dry Low Range Differential Pressure Sensor

Key Features:

- Ranges 0-0.25mbar up to 0-1000mbar
- Output: 4-20mA (0-5Vdc and 0-10Vdc Optional)
- Line / Common Mode Pressure: 2bar max. (range dependent)
- Accuracy: $<\pm 0.3\%$ /FS
- High Stability and Repeatability
- R.F.I Protection
- User Zero + Span Adjustment
- Uni + Bi-Directional Operation
- ATEX Version Certified: EEx ia IIC T4, Ex II 1 D Ex ia IIIC T135°C Da (zone 20), EX I M 1 Ex ia I Ma (group I M1)
Note: 0-5mbar minimum range, 4-20mA only
- 3 Year Warranty



The [PR3202 dry/dry low range differential transmitter](#) is designed for the measurement of low pressure dry/non-corrosive gases across range of general purpose and industrial applications. Incorporating the latest silicon sensor and electronics technologies, these differential pressure transmitters are fully temperature compensated for unrivalled stability at very low pressure.

In addition to differential pressure, the PR3202 can also measure gauge and vacuum / suction pressure, it can also operate bi-directionally giving the ability to measure compound differential pressure ranges that range from vacuum to positive pressure.

Housed in an RFI shielded wall mountable box for EMC protection, these transmitters combine precise measurement for control at very low pressures, with the robustness and flexibility for industrial and commercial installations. An optional heavy-duty aluminium die-cast housing is available for the harshest environments.

Access to screw terminal electrical connections and to zero span potentiometers is by removing the front covers, making easy installation and on-site adjustment. Cable entry is through a compression seal gland, or optional M20 conduit fitting. Standard pressure connections are to push-on hose fittings for 4mm ID hose.

Ranges available from 0-5mbar to 0-1000mbar, in DP, gauge reference or bi-directional. Ultra low pressure ranges as low as 0-25 Pa also available, please [contact our technical sales team](#) or see our [full range of pressure sensors](#).

Options:

- ATEX Certified Versions Available
- Heavy-Duty Aluminium Die-Cast Housing
- High Pressure Differential Ranges Available
- Optional M20 Conduit Fitting
- Ultra-Low Ranges Available

Applications:

- Flow Measurement with Pitot Tubes
- Orifice Plates and Mass Flow Meters
- Static Pressure Measurement and Control in Combustion Chambers and Clean Rooms
- HVAC



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Specification:

Input Pressure Range											
Nominal Pressure Range	mbar	5	10	20	30	50	80	100	250	500	1000
Permissible Overpressure	mbar	25	25	200	200	200	200	200	1200	1200	1200
Max Common Mode Pressure/ Static Line Pressure	mbar	375	375	2000	2000	2000	2000	2000	2000	2000	2000

Output signal & supply voltage	Number of Wires	Output	Supply Voltage	Supply Current
PR3202	2 - wire	4 - 20mA	13 - 36Vdc	n/a
PR3202X (ATEX version)	2 - wire	4 - 20mA	13 - 28Vdc	n/a
PR3202V5	3 - wire	0 - 5Vdc	13 - 30Vdc	13mA
PR3202V10	3 - wire	0 - 10Vdc	13 - 30Vdc	13mA

Performance		
Accuracy (non-linearity, hysteresis, repeatability)	% Full Scale Output	<±0.30 (BFSL)
Zero Offset and Span Tolerance	% Span	±1
Zero Offset and Span Adjustment	% Full Scale Output	±5 with easy access trimming potentiometer
Permissible Temperatures & Thermal Effects		
Media Temperature	°C	-20 to +70
Ambient Temperature	°C	-20 to +70
Storage Temperature	°C	+5 to +40
Thermal Zero Shift (TZS)	% / Full Scale / °C	<±0.04
Thermal Span Shift (TSS)	% / Full Scale / °C	<±0.04
Electrical Protection		
Reverse Polarity Protection		Protected against supply voltage reversal up to 50Vdc
Materials		
Media Compatibility		Dry non-corrosive gas only
Misc		
Weight	Grams	280 for standard unit
Insulation Resistance	Megohm @ 50 Vdc	>100
Electrical Connection:		Screw terminals for conductor sizes 0.2-2.0mm ² are located beneath the enclosure lid. Cable entry is through an IP66 cable gland with compression seal for cable sizes 4-8mm. Optional M20 conduit fitting available.
Pressure Connection:		4mm I.D. hose (others on request)
Response Time (10% - 90%)	ms	≤10
Environmental Protection:		IP65
Load Driving Capability	4 - 20mA version	= Supply voltage - 10V / 0.02A (i.e. 36V - 10V / 0.02A = 1300Ω)
	0 - 5V / 0 - 10V versions	>5kΩ / >10kΩ
Long Term Stability	% / Full Scale	< 0.2 / 6 months
Operational Life	Pressure Cycles	> 10 ⁸ typical
ATEX Approval (4-20mA versions only)		Ex II 1 G Ex ia IIC T4 Ga (zone 0) Ex II 1 D Ex ia IIIC T135°C Da (zone 20) EX I M 1 Ex ia I Ma (group I M1)



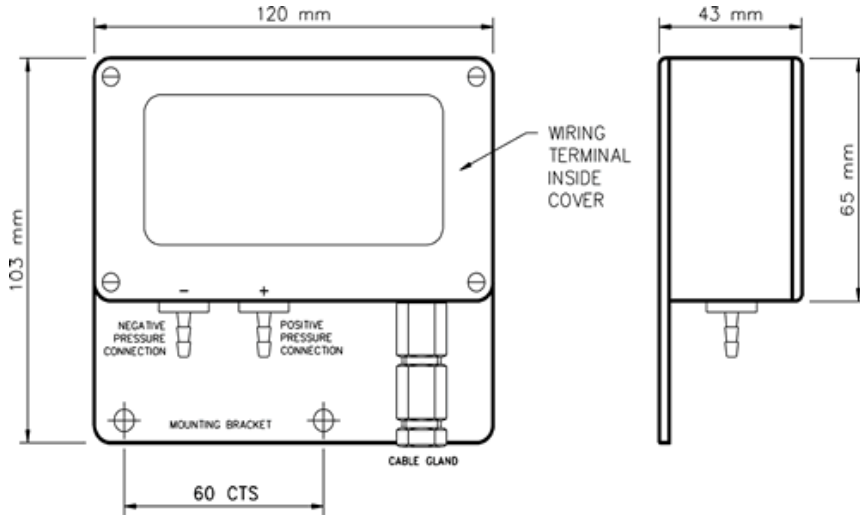
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Dimensions (mm):

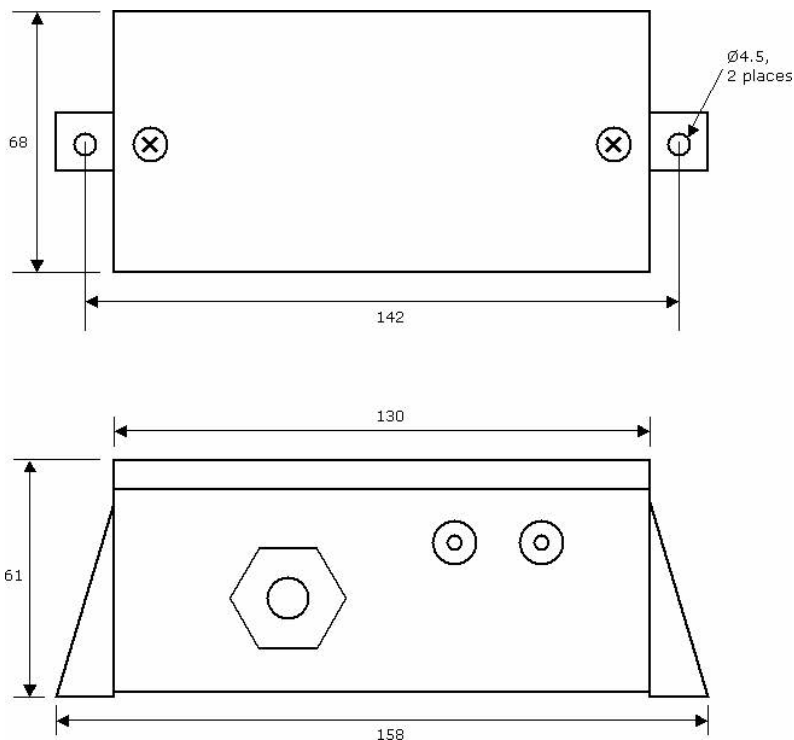


Wiring Diagram:

Pin No.	2 Wire (4 - 20mA)
1	+ve supply
2	4 - 20mA signal
3	earth/case

Pin No.	3 Wire (0 - 5Vdc / 0 - 10Vdc)
1	-ve supply / 0V common
2	+ve supply
3	output signal

Dimensions for pressure ranges less than 5mbar.



Associated Products:



[Intuitive4-P Process Panel-Mount Indicator](#)



[Intuitive4 Lite Digital Indicator](#)



Ordering Codes:

PR3202X-1000mbar-AA-00-000	PR3202	X		-	1000mbar	-	A	A	-	00	-	000
<i>Example Code</i>												
Product Family												
PR3202	PR3202											
Electrical Output												
Blank = 4-20mA (2-wire)		Blank										
X = 4-20mA ATEX Certified (2-wire)		X										
V5 = 0-5Vdc (3-wire)		V5										
V10 = 0-10Vdc (3-wire)		V10										
Electrical Connection												
Blank = Cable Gland (suits 4-8mm diameter cable)			Blank									
Pressure Range												
1000mbar = 0 to 1000mbar differential					1000mbar							
10psi = 0 to 10psi differential					10psi							
M500P500mbar = -500 to +500mbar differential					M500P500mbar							
Process Connection												
A = Male Hose Barb Fittings (suit 4mm ID hose)							A					
B = 1/4" BSP Male Threaded Connection							B					
Housing Type												
A = Standard								A				
B = Aluminium								B				
Cable Length												
00 = None										00		
01 = 1 metre										01		
Specials Code												
000 = No Special Requirements												000