APPLIED MEASUREMENTS LTD.
Transducer Specialists...

+44 (0) 118 981 7339
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https://appmeas.co.uk

PR3200 Wet/Wet Differential Pressure Sensor

Request Pricing

Key Features:

- Ranges 0-500mbar up to 0-200bar
- Output: 4-20mA (0-5Vdc & 0-10Vdc Optional)
- Line / Common Mode Pressure: 4x range max.
- Accuracy: <±0.30%/FS
- Optional ATEX Intrinsically Safe Version
- High Stability and Repeatability
- Wet/Wet Operation
- Zero + Span Adjustment On-Site
- Uni + Bi-Directional Operation
- CE Marked
- ATEX Version Certified: EEx ia IIC T4, Ex II 1 D Ex ia IIIC T135ºC Da (zone 20), EX I M 1 Ex ia I Ma (group I M1)
- 3 Year Warranty

The PR3200 wet/wet differential transmitter is designed for the measurement of liquids and gases across range of general purpose and industrial applications compatible with stainless steel and titanium.

Typical applications include filter condition monitoring, flow measurement with pitot tubes, orifice plates and mass flow meters, static differential pressure measurement and control in combustion chambers and clean rooms, condition monitoring and filter monitoring in high pressure hydraulic systems and any application on liquid or gas requiring reliable differential pressure measurement.

The PR3200 uses two titanium pressure diaphragms offering high stability and superb chemical and corrosion resistance and is suited to applications where more aggressive medias are encountered. An ATEX certified version is also available for use in hazardous areas.

The sensing elements are coupled via a differential amplifier to provide a 4-20mA output suitable for use with all common measurement and control electronics, 0-5Vdc and 0-10Vdc are also available. The electrical connector is DIN plug and socket and the pressure connection as standard is via two ¼" BSP female connectors which can be fitted with adapters to provide alternative threads if required.

Access to zero and span adjustment is easy by removing top plate making on-site adjustment easy. Mounting Plate is available for standpipe or bulkhead mounting.

Need a lower range? Try our dry/dry PR3202 low differential pressure sensor or take a look at our full range of pressure sensors.

Options:

- ATEX Versions Available
- Alternate Threads Available
- High Pressure Differential Ranges Available

Applications:

- Filter Condition Monitoring
- Flow Measurement
- Hydraulic Applications

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Specification:

Input Pressure Range											
Nominal Pressure Range	Bar	0.5	1	2	4	6	10	20	40	100	200
Permissible Overpressure	Bar	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5
Max. Common Mode Pressure / Static Line Pressure	Bar	2.5	4	10	16	25	40	60	160	400	600

Output signal & supply voltage	Number of Wires	Output	Supply Voltage	Supply Current
PR3200	2 – wire	4 - 20mA	10 - 36 Vdc	
PR3200X	2 - wire	4 - 20mA ATEX	10 to 28Vdc (unregulated)	N/A
PR3200V5	3 - wire	0 - 5Vdc	13 to 30 Vdc (unregulated)	13mA
PR3200V/0	3 - wire	0 - 10Vdc	13 to 30Vdc (unregulated)	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 potentiometers
Permissible Temperatures & Thermal Effects		
Media Temperature	˚C	-20 to +85
Ambient Temperature	˚C	-20 to +85
Storage Temperature	˚C	+5 to +40
Thermal Zero Shift (TZS)	% / FS / ˚C	<±0.05
Thermal Span Shift (TSS)	% / FS / ˚C	<±0.05
Electrical Protection		
Reverse Polarity Protection		Protected against supply voltage reversal up to 50Vdc
Materials		
Media Compatibility		Any media compatible with 316 Stainless Steel and Titanium
Misc		
Weight	Grams	835 grams for standard unit with DIN43650 socket fitted.
Insulation Resistance	Megohm @ 50 Vdc	>100
Electrical Connection		Mating socket with screw terminal connections to DIN 43650.
Pressure Connection		1/4" BSP female (others on request)
Response Time (10% - 90%)	ms	≤1
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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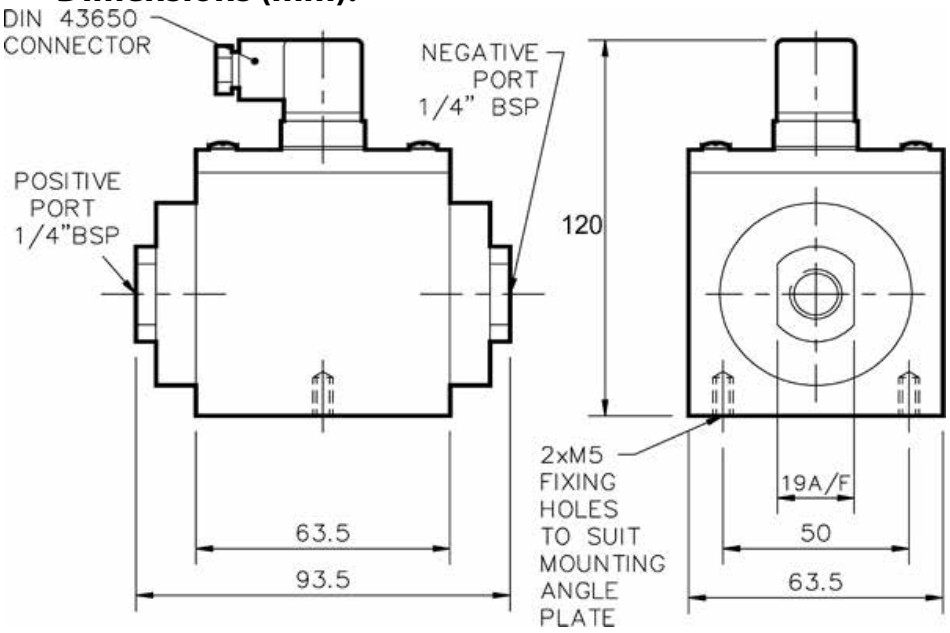
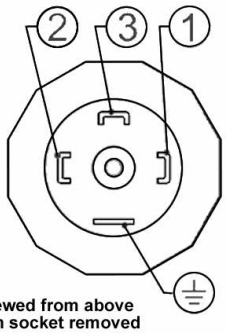
Dimensions (mm):



Wiring Diagram:

Pin No.	2 Wire (4 - 20mA)
1	+ve supply
2	4 - 20mA signal
3	not fitted
⏚	to case



Viewed from above
with socket removed

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

Associated Products:

TR150 Handheld Indicator

T24 Wireless Telemetry Range

Intuitive4-L Panel-Mount Indicator

DSC-USB USB Signal Digitiser

Intuitive4-P Process Input Panel Mount Indicator

FUSION Large Digital Display

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Ordering Codes:

PR3200X-10barg-AA-00-000	PR3200	X	-	10bar	-	A	A	-	00	-	000
Example Code											
Product Family											
PR3200	PR3200										
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									
Pressure Range											
10bar = 0 to 10bar differential				10bar							
2400psi = 0 to 2400psi differential				2400psi							
M1P1bar = -1 to +1bar differential				M1P1bar							
Process Connection											
A = G1/4" Female						A					
Housing Material											
A = Standard							A				
Cable Length											
00 = None									00		
01 = 1 metre									01		
Specials Code											
000 = No Special Requirements											000

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