



PROTRAN® PR3202

Low Range Differential Pressure
Transducer

- Wide range of low pressure ranges from 0-5 mbar
- Available for gauge reference or bi-directional measurement
- Durable designs for industrial and commercial installations
- ATEX/IECEx option available



Specifications

The PROTRAN PR3202 low range air differential pressure transmitter provides an accurate solution for low pressure sensing. Incorporating the latest silicon sensor and electronics technologies, these 4-20 mA transmitters are fully temperature compensated for unrivalled stability at very low pressure. Ranges available from 0-5 mbar to 0-1000 mbar in DP Gauge reference or Bi-directional.

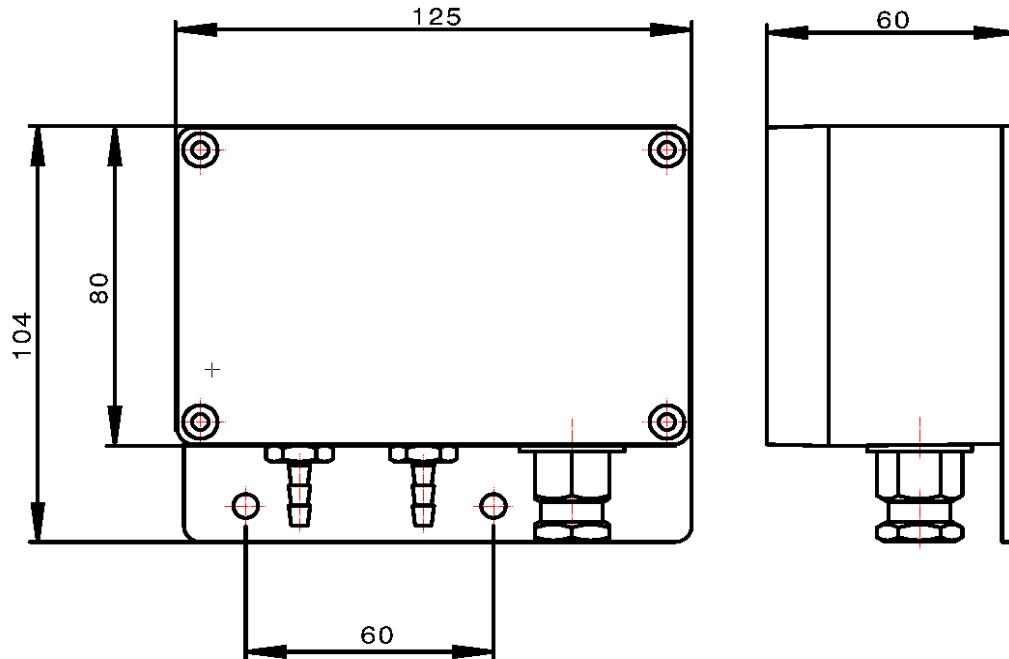
ATEX and IECEx approval and protection by intrinsic safety is optional and intended for installation and operation in zone 0, gas group IIC, temperature class T4 and zone 20 dust.

Typical Applications include:

Combustion chambers
Clean rooms
Any application on air or gas requiring reliable ultra-low differential



Dimensions (in mm)



Electrical Connections

Pin	mA (2 wire)
1	+supply
2	4-20mA signal
3	N/C
—	to case

Technical Data

Type	PR3202	PR3203	PR3204		
Sensor Technology:	Piezoresistive Silicon				
Output Signal:	4-20 mA (2 wire)	0-5 V (3 wire)	0-10 V (3 wire)		
Supply Voltage:	10-36 VDC				
Pressure Reference:	Differential				
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V				
Standard Pressure Ranges (mbar):	0-5 mbar; 0-10 mbar; 0-20 mbar; 0-50 mbar; 0-100 mbar; 0-250 mbar; 0-500 mbar; 0-1,000 mbar (other options available)				
Standard Pressure Ranges (psi):	0-2 inH2O; 0-4 inH2O; 0-8 inH2O; 0-10 inH2O; 0-12 inH2O; 0-20 inH2O; 0-1 psi; 0-1.5 psi; 0-3 psi; 0-4 psi; 0-7.5 psi; 0-15 psi (other options available)				
Overpressure Safety:	25 mbar max. for ranges 0-5 mbar to 0-10 mbar; 200 mbar max. for ranges 0-20 mbar to 0-100 mbar; 1200 mbar max. for ranges 0-150 mbar to 0-1000 mbar				
Common Mode (Static line pressure):	375 mbar equal to both ports for ranges 0-5 to 0-10 mbar; 2 bar max. equal to both ports for ranges 0-20 mbar to 0-1000 mbar				
Load driving Capability:	4-20 mA: $RL < [UB - 13 V] / 20 \text{ mA}$ (e.g. with supply voltage (UB) of 36 V, max. load (RL) is 1150 Ω)				
Accuracy NLHR:	$\leq \pm 0.3\%$ of span BFSL				
Zero Offset & Span Tolerance:	$\pm 1.0\%$ FS at room temperature $\pm 5\%$ FS (approx.) adjustment via trimming potentiometers located beneath the enclosure lid				
Operating Ambient Temperature:	-20°C to +70°C (-4°F + 158°F)				
Operating Media Temperature:	-20°C to +70°C (-4°F to 158°F)				
Storage Temperature:	+5°C to +40°C (+41°F to +104°F) Recommended Best Practice				
Temperature Effects:	$\pm 2.0\%$ FS total error band for -20°C to +70°C. Typical thermal zero and span coefficients $\pm 0.04\%$ FS/°C				
ATEX/IECEx Approval (4-20 mA version only):	EX II 1 G Ex ia IIC T4 GA (Zone 0) Ex II 1 D Ex ia IIIC T135 C Da (Zone 20)	n/a			
ATEX/IECEx Safety Values:	Ui = 28 V / Li = 119mA / Pi = 0.65 W / Li = 0.1 pH / Ci = 74 nF. Temperature Range = -20C to +70C. Max. cable length = 45m	n/a			
Electromagnetic Compatibility:	Emissions: EN61000-6-3; Immunity: EN61000-6-2; Certification: CE/UKCA Marked				
Insulation Resistance:	> 100 M Ω @ 50 VDC				
Response Time 10-90%	1 mS				
Wetted Parts:	Nickel plated brass, silicone tubing, silicon diaphragm, glass filled polyamide				
Pressure Media:	Non-corrosive media such as non-ionic fluids, air and dry gases				
Pressure Connection:	4 mm I.D. hose (other options available)				
Electrical Connection:	Screw terminals for conductor sizes 0.2-2 mm ² are located beneath the enclosure lid.				
Net. Weight:	0.3 Kg				

Order Matrix

Output	Wires	Type	Electrical Connection/Options	Pressure Range	Process Connection
4-20 mA	2	PR3202			
0-5 V	3	PR3203			
0-10 V	3	PR3204			
Electrical Connections/Options					
DIN EN175301 plug and socket			-		
ATEX/IECEx certified			EX		
Aluminium Enclosure			AL		
Pressure Range in bar					
0-5 mbar				0005	
0-50 mbar				0050	
0-100 mbar				0100	
0-500 mbar				0500	
Process Connection					
4.8mm tube connection (push-on-stem)					AW
1/4" BSP male (G1/4)					AB

Order Number Example

PR3202EX0005AW

For options not listed please contact the sales team

DISCLAIMER: ESI Technology Ltd operates a policy of continuous product development. We reserve the right to change specification without prior notice. All products manufactured by ESI Technology Ltd are calibrated using precision calibration equipment, traceable to national measurement standards.