PT250/PT251
Pressure Transmitters

RoHS

Description

The PT250/PT251 series of pressure transmitters incorporate a stainless steel isolation diaphragm and all welded construction to withstand harsh industrial environments. Pressure ranges from 6 to 400 BAR or 100 to 5,000 PSI can be measured using a supply voltage of 9-32V. The transmitter provides a 4-20mA output proportional to applied pressure. The P250 is specified with pressure ranges measured in BAR while the PT251 pressure ranges are measured in PSI.

The rugged construction of the PT250 allows it to be used safely in environments with large over-pressure spikes. The 304L stainless steel diaphragm is compatible with most industrial fluids and gaseous media.

Features

- Welded Stainless Steel Construction
- Absolute or Sealed Gage References
- Packard, M12, 18mm & 9.4mm DIN Electrical Connectors
- 4–20 mA Output
- High Vibration Tolerance
- Superior EMI/RFI Rejection
- M10, M12, & M14 Pressure Ports
- Temperature Compensated

Applications

- Pumps & Compressors
- Process Controls
- HVAC & VAV
- Refrigerant Control & Recovery
- Water Management
- Autoclaves
- Hydraulic Systems
- Test & Monitoring Equipment

Standard Full Scale Pressure Ranges

6, 10, 16, 25, 40, 50, 100, 250, and 400 BAR (PT250)

100, 150, 200, 300, 500, 1,500, 3,000, 4,000, and 5,000 PSI (PT251)

Absolute or Sealed Gage

Technical Specifications

Note: Performance Specifications with 15 Vdc supply at 25°C

Pressure Ranges:	0–100 through 0–5,000 PSI 0–6 through 0–400 BAR Absolute or Sealed Gage
Proof Pressure:	2X
Burst Pressure:	250 BAR - (up to 50 BAR) 1,000 BAR - (above 50 BAR)
Supply Voltage:	9-32 Vdc
Current Output Span:	4-20 mA
Load Resistance:	(Vs-9Vdc)/20mA
Linearity Error Hysteresis and Repeatibility:	±0.5%
Total Error Band:	±2% of Span (-15°C to +85°C)
Response Time:	< 2ms
Operating Temperature:	-15°C to +85°C
Storage Temperature:	-40°C to +100°C
Service Life:	1 Million Full Pressure Cycles
Vibration:	10G Sinusoidal from 10-2000 Hz
Shock:	75G Sine Wave
Housing Material:	304L Stainless Steel
Electrical Connector:	See “How to order”
Pressure Connection:	See “How to Order”
Reverse Polarity Protection:	32 V
Maximum Voltage:	36 V

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PT250/PT251
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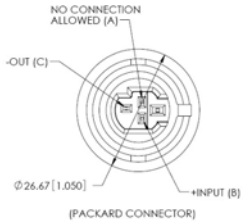
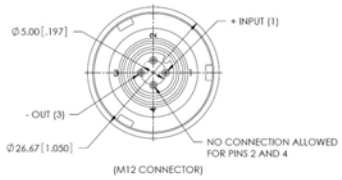
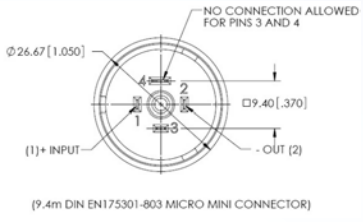
Outline Drawings



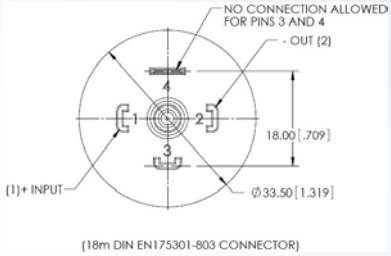
(PACKARD CONNECTOR)



(M12 CONNECTOR)

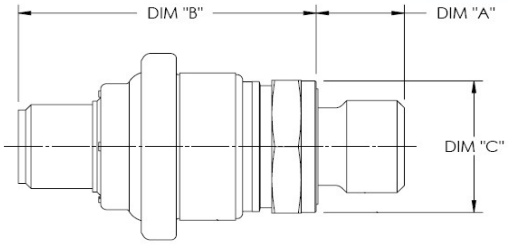


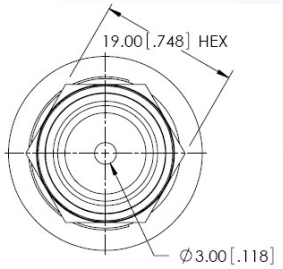
(9.4m DIN EN175301-803 MICRO MINI CONNECTOR)



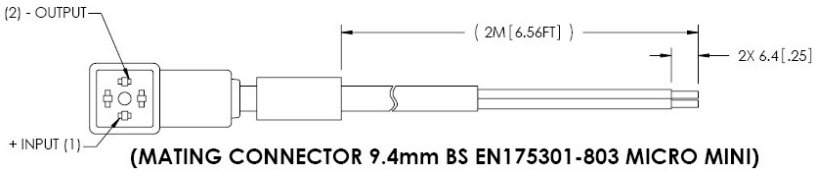
(18m DIN EN175301-803 CONNECTOR)

Dimension "A" = 15.8 mm (Max)
"B" = 50.4 mm (Max)
"C" = 18.8 mm
(Please consult factory for dimensions of specific configurations.)

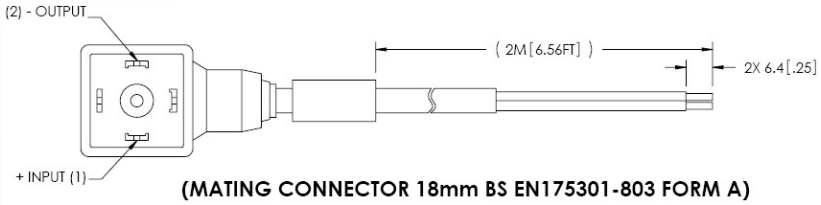




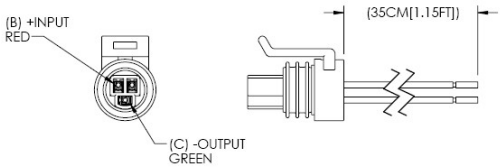
Mating Connectors: *(Mating Connector Kits not shown)*



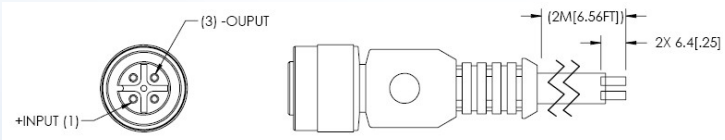
(MATING CONNECTOR 9.4mm BS EN175301-803 MICRO MINI)



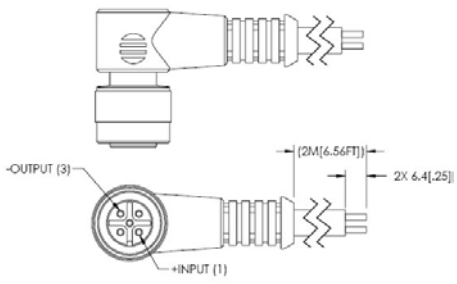
(MATING CONNECTOR 18mm BS EN175301-803 FORM A)



(MATING CONNECTOR PACKARD)



(MATING CONNECTOR 12mm STRAIGHT)



(MATING CONNECTOR 12mm RIGHT-ANGLE)

PT250/PT251
Pressure Transmitters

How to Order

PT250 Pressure Transmitter PT251 Pressure Transmitter

Pressure Ranges

6	0 – 6 BAR	100	0 – 100 PSI
10	0 – 10 BAR	150	0 – 150 PSI
16	0 – 16 BAR	200	0 – 200 PSI
25	0 – 25 BAR	300	0 – 300 PSI
40	0 – 40 BAR	500	0 – 500 PSI
50	0 – 50 BAR	1500	0 – 1,500 PSI
100	0 – 100 BAR	3000	0 – 3,000 PSI
250	0 – 250 BAR	4000	0 – 4,000 PSI
400	0 – 400 BAR	5000	0 – 5,000 PSI

Reference

A	Absolute
S	Sealed Gage

External Seal/Washer Material (Supplied for Straight Threads Only)

B	Nitrile Butadiene (NBR) (for Port 3 Option Only)
D	Fluorocarbon (FPM) (for Port 3 Option Only)
G	Aluminum Washer (Pressure Ports 6,7,8 and 9)
X	None

Pressure Connection (Port)

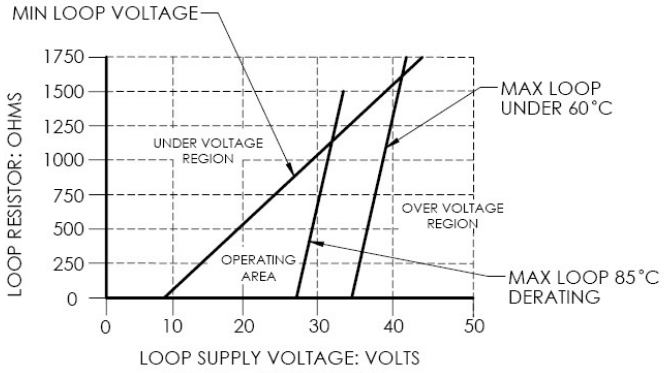
1	Stud End 1/4-18 NPT
2	Port 7/16-20 UNF-2A with Schrader Deflator (1/4" SAE Female Flare)
3	Stud End 7/16-20 UNF-2A, (SAE J1926-2)
4	Stud End 1/8-27 NPT
5	Port G1/4
6	Stud End G1/4
7	Stud End M10x1
8	Stud End M12x1.5
9	Stud End M14x1.5
10	Port M10x1.25 with Schrader Deflator
11	Stud End R1/4

Built-in Electrical Connector

A	Packard Connector with Mating Connector and 35cm Leads
C	Packard Connector
D	M12 with Mating Connector,Straight
E	M12 with Mating Connector, Right Angle
F	M12 Connector Kit Right Angle (without Wire)
G	M12 Connector Kit Straight (without Wire)
H	M12 (without Mating Connector)
J	9.4mm, DIN EN 175301-803 Micro-mini (with Mating Connector)
K	9.4mm, DIN EN 175301-803 Micro-mini
L	18mm, DIN EN 175301-803 (with Mating Connector)
M	18mm, DIN EN 175301-803 (w/o Mating Connector)

PT250 25 A X 1 A

Example: PT250-25A-X1A



4 TO 20 mA TRANSMITTER
LOOP RESISTOR vs LOOP SUPPLY
DERATED ABOVE 60°C AMBIENT TEMPERATURE