

Introducing the TDM30 series Stainless Steel Isolated Pressure Transducer.

SERIES: TDM30



FEATURES

- One-piece Stainless Steel Construction
- Ranges up to 10,000 PSI or 700 BAR
- Millivolt or Amplified Outputs
- Excellent Accuracy
- Wide Operating Temperature Range

APPLICATIONS

- Pumps and Compressors
- Hydraulic/ Pneumatic Systems
- Automotive Test Systems
- Energy and Water Management
- Pressure Instrumentation
- Refrigeration Freon and Ammonia Based
- Agriculture Sprayers and Dusters

DESCRIPTION

The TDM30 series pressure transducers set a new price-performance standard for low cost, high volume, commercial and industrial applications. This series is suitable for measurement of liquid or gas pressure, even for difficult media such as contaminated water, steam, and mildly corrosive fluids or gases.

The transducer pressure cavity is machined from a solid piece of 17-4 PH stainless steel. The standard version includes a 1/4NPT pipe thread allowing a leak-proof, all metal sealed system. There are no o-rings, welds or organics exposed to the pressure media. The durability is excellent.

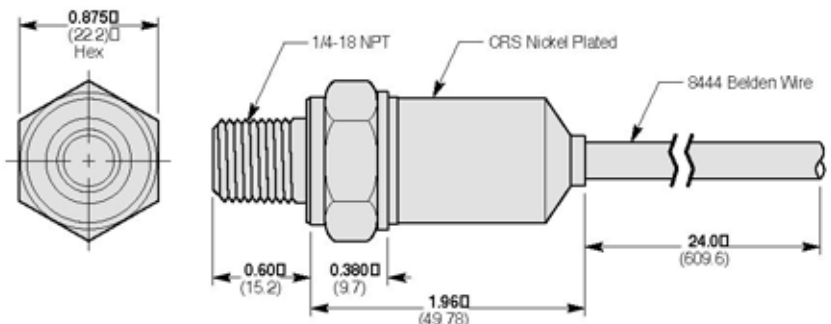
The proprietary Microfused Technology is derived from demanding aerospace applications, employs micromachined silicon piezoresistive strain gages, fused with high temperature glass to a stainless steel diaphragm. This approach achieves media compatibility simply and elegantly providing an exceptionally stable sensor without the p-n junctions of conventional micromachined sensors.

This product is geared to the OEM customer using medium to high volumes. The standard version is suitable for many applications, but the dedicated design team at our Transducer Engineering Center stands ready to provide a semi-custom design where the volume and application warrants.

DIMENSIONS

Electrical Connections:

Outputs:	Analog 4-Wire	Analog 3-Wire	Current 2-Wire
	Red +Supply	Red +Supply	Red +Supply
	Black -Supply	Black Ground	Black Output
	White -Output	White Output	
	Green +Output		



Dimensions In Inches And Are Reference Only.

SPECIFICATIONS

Performance at 77°F (25°C):

Pressure range

0 to 100, 250, 500, 1000, 2500, 5000, 10000 PSI
(0 to 7, 17, 35, 70, 175, 350, 700 BAR)

Accuracy (combined linearity, hysteresis and repeatability)

< 1% of FS (for higher accuracy consult factory)

Media compatibility

17-4 PH stainless steel (for other material consult factory)

Pressure ports

1/4 NPT (for other ports consult factory)

Pressure cycles

>108 full pressure cycles

Pressure overload

2X rated pressure

Burst pressure

5X or 20000 PSI whichever is less

Long term stability (1 year)

± 0.25% FS (Typical)

Electrical

5VDC 10-30VDC

Supply voltage

<10mA <15mA

Supply current

Outputs

0-100mVDC, ratiometric to supply (2) 1-5VDC, fixed (4)

0.5-4.5VDC, ratiometric to supply (3) 4-20mA, 2 wire (5)

Zero offset

± 3% of FS for 0-100mV/ ±2% for amplified

(for tighter tolerances consult factory)

Interface

2 ft. PVC jacketed cable (for other options consult factory)

Span tolerance

± 2% of FS (for tighter tolerances consult factory)

Output load

1M Ohm for millivolt output /

5K Ohm min for high level voltage

Noise

0 Ohms @ 10V (1100 Ohms @ 30V) for 4-20mA

Bandwidth

< 2mVRMS - for amplified

Environmental

(-3dB) DC to 1KHz - for amplified

Operating temperature range

-4 to 185°F (-20 to 85°C),

(For other temperature ranges consult factory)

Compensated temperature range

30 to 130°F (0 to 55°C)

Zero thermal error

< ± 2% of FS

Span thermal error

< ± 2% of FS

Storage temperature range

-40 to 185°F (-40 to 85°C)

Vibration

±20g MIL-STD-810C, Procedure 514.2,

Figure 514.2-2, curve L

ORDERING

Series	Output	Pressure Type	Pressure Range	Pressure Port	Electrical Connection	Cable Length	Accuracy
TDM30	B	G	010K	03	C	02	4
TDM30= 2X Over Pressure	B= 4-20ma H= 1-5 vdc K= 0.5 - 4.5 vdc S= 100mV (4-wire)	G = Gauge	0100 0250 0500 1000 2500 5000 010K	03= 1/4" NPT Male	C= Cable	02= 2 feet **	4= 1%

**= Consult factory for further options.

Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use. While we provide application assistance personally, through our literature and the Transducers Direct web site, it is up to the customer to determine the suitability of the product in the application.

REV:01.06