Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

TE Connectivity Measurement Specialties
2000296

For any questions, you can email us directly:
sales@integrated-circuit.com

MEASUREMENT SPECIALTIES

- No Leaks
- No Welds
- No “O” Rings
- No Silicone Oil

Microfused Technology

MSP-310
Stainless Steel Isolated Pressure Transducer With Temperature Output

ISO 9002

- **Low Cost OEM**
- **100% Leak Proof**
  No “O” Rings, No Silicone Oil, No Welds

Features

Rugged, Reliable, Low Cost
One-piece Stainless Steel Construction
Ranges up to 10,000 PSI or 700 BAR
Pressure and Temperature Outputs
Excellent Accuracy
Wide Operating Temperature Range

Applications

Pumps and Compressors
Hydraulic / Pneumatic Systems
Off Road
Energy and Water Management
Pressure Instrumentation
CNG (compressed natural gas)
Transmissions

Description

The MSP 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 $^1/_4$ NPT 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.

Measurement Specialties proprietary Microfused technology, 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.

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	$>10^8$ 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)
Temperature	
Output	10mV/°K (2.98V nominal, @ 25°C)

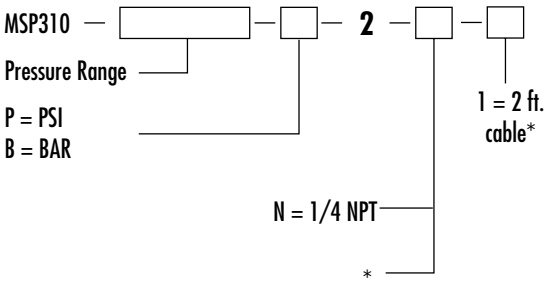
Electrical:

Supply voltage	5VDC
Supply current	<10mA
Output	0-100mVDC, ratiometric to supply
Interface	2 ft. PVC jacketed cable (for other options consult factory)
Zero offset	± 3% of FS
Span tolerance	± 2% of FS
Output load	1M Ohm
Bandwidth (-3dB)	DC to 1KHz min

ENVIRONMENTAL

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)
Shock	50g, 11msec half sine shock per MIL standard 202F, method 213B, condition A
Vibration	±20g MIL-STD-810C, Procedure 514.2, Figure 514.2-2, curve L

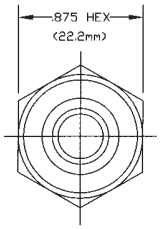
ORDERING

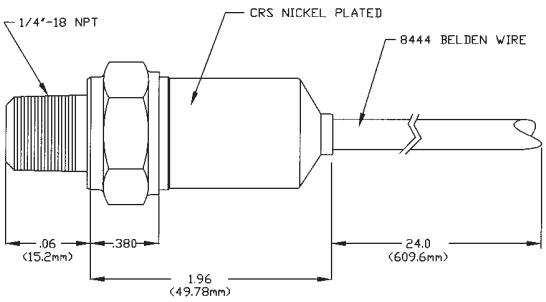


* for others consult factory

Electrical Connections:

Red	+Supply
Black	–Supply
White	–Output
Green	+Output
Brown	Temperature output





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MEASUREMENT SPECIALTIES

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