

MSP100 Low Cost Pressure Transducer



- OEM Applications
- Small Size
- Quick Port Connection
- Low Cost

DESCRIPTION

The MSP100 series pressure transducers from the Microfused™ line of MEAS, provides stainless steel media compatibility for the price of competing plastic sensors. This sensor has no silicone gel or polymeric media isolation methods to fail in contact with water or other harsh chemicals. The all metal diaphragm design is immune to pressure fluctuations and subsequent damage. The all-metal pressure enclosure has a small round plastic housing and is available with a cable and connector. Pressure connections are provided via an O-ring seal. Both compensated/calibrated and uncompensated versions are available. High volume port options are customer specific. The small size vs. performance and media compatibility are provided through solid-state Microfused™ technology.

FEATURES

- Single Piece Construction; No Welds, No O-Rings, No Oil
- 100% 316L Stainless Steel Isolation for Harsh Chemical Measurement
- Cable/Connector Versions Standard Contact Factory for PCB Mountable Versions
- Low Cost, High Volume
- Custom Seal Designs Available
- Drinking Water or Beverage Safe
- Calibrated 100mV Output
- Features Microfused™ Technology

APPLICATIONS

- Beverage Dispensing Systems
- Severe Pressure Cycle Applications
- Ink Jet & Paint Spraying Systems
- Liquid Dispensing
- High Volume Custom Pressure/ Flow Systems

STANDARD RANGES

Range	psig
0 to 100	•
0 to 250	•
0 to 500	•

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PERFORMANCE SPECIFICATIONS

Supply Voltage: 5.0V, Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Offset	-2	0	2	mV	1,2
Span	98	100	102	mV	1,2
Accuracy (combined non linearity, hysteresis, and repeatability)	-0.5	±0.2	0.5	%Span	3
Temperature Error – Zero	-2		2	%Span	1
Temperature Error – Span	-2		2	%Span	1
Long Term Stability (1 year)		0.25		%Span	
Supply Voltage	2	5	12	V	
Pressure Cycles (Zero to Full Scale)	10			Million	
Output Load	100			kΩ	1
Frequency Response (-3dB)			1	kHz	
Input Resistance	3	4	6	kΩ	
Output Resistance	2		5	kΩ	
Isolation Resistance (250V)	50			MΩ	
Compensated Temperature	0		45	°C	
Operating Temperature	0	25	55	°C	
Storage Temperature	-40		+125	°C	
Proof Pressure	1.5X			Rated	
Burst Pressure	3X			Rated	
Vibration	±20			g	4
Shock (11mS)	50			g	5
Weight		19		grams	
Media Compatibility	All Materials Compatible with 316 Stainless Steel				

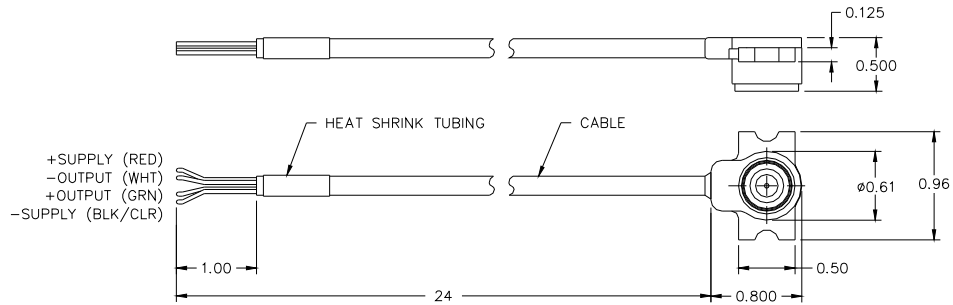
For custom configurations, consult factory.

Notes

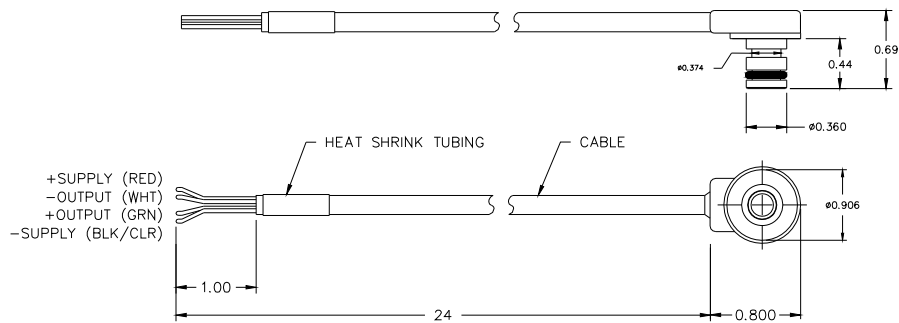
1. Output loading mV output products will change zero, span and thermal errors (keep min. to 100K Ω).
2. Ratiometric with supply.
3. Best fit straight line.
4. Per MIL-STD-810C, Procedure 514.2, Figure 514.2-2, Curve L.
5. 1/2 sine per MIL-STD 202F Method 213B condition A.

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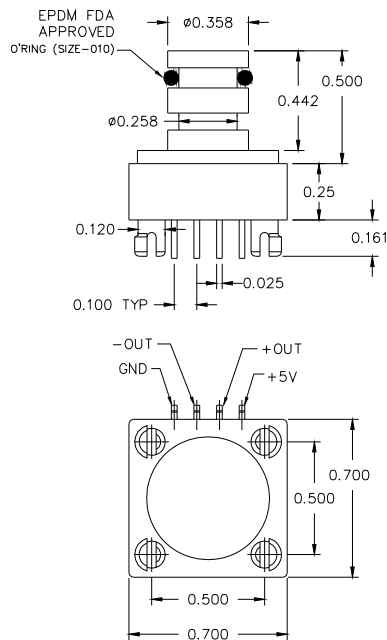
DIMENSIONS



Connection = 1 (2ft Cable)
Pressure Port = J (O-Ring Face Seal)



Connection = 1 (2ft Cable)
Pressure Port = U (O-Ring Radial Seal)



Connection = A (Board Mount)
Pressure Port = U (O-Ring Radial Seal)

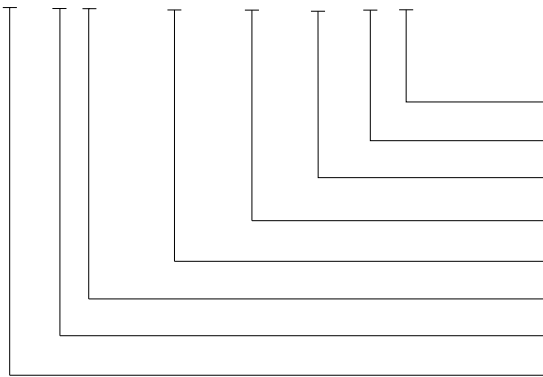
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OUTPUT OPTIONS

Code	Output	MIN	Supply(V)	
			TYP	MAX
2	0 – 100 mV (ratiometric)	2.5	5	12

ORDERING INFORMATION

MS121-00000U-100PG



Type (G = Gage)
 Units (P = psi)
 Pressure Range (100 = 100)
 Pressure Port (U = O-Ring Radial Seal, J = O-Ring Face Seal)
 Specials (nnnnn = Custom Design)
 Connection (1 = 2ft Cable, A = Board Mount)
 Output (2 = 0 - 100mV)
 Model

NORTH AMERICA

Measurement Specialties
 45738 Northport Loop West
 Fremont, CA 94538
 Tel: 1-800-767-1888
 Fax: 1-510-498-1578
 Sales: pfg.cs.amer@meas-spec.com

EUROPE

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 78340 Les Clayes-sous-Bois, France
 Tel: +33 (0) 130 79 33 00
 Fax: +33 (0) 134 81 03 59
 Sales: pfg.cs.emea@meas-spec.com

ASIA

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