MSP 340

Stainless Steel Isolated Low Pressure Transducer

Low Cost OEM; 100% Leak Proof

No "0" Rings, No Silicon Oil, No Welds

The MSP 340 series pressure transducers from the Microfused™ line of MSI Sensors, a division of Measurement Specialties Inc., 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 7/16-20 UNF thread allowing a lead-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.

FEATURES

- One-Piece Stainless
- Steel Construction
- Ranges up to 10,000 PSI or 700 BAR
- Millivolt or Amplified Outputs
- Excellent Accuracy
- Small Size

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

Environmental Performance	
Operating temperature range	-4 to 185ºF (-20 to 85ºC), (For other temperature ranges consult factory)
Compensated temperature range	30 to 130ºF (0 to 55ºC)
Zero thermal error	<±2% of FS
Span thermal error	<±2% of FS
Storage temperature range	-40 to 185ºF (-40 to 85ºC)
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

msisensors
innovation • performance • reliability

Schaevitz
ICSensors
Microfused
Piezo Film

mechanical 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	7/16-20 UNF (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)	
Electrical:		
Supply voltage	5VDC	10-30VDC
Supply current	<10mA	<15mA
Outputs	0-100mVDC, ratiometric to supply	
	0.5-4.5VDC, ratiometric to supply	
Interface	2 ft. of PVC jacketed cable (for other options consult factory)	
Zero offset	±3% of FS for amplified (for tighter tolerances 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	
	0 Ohms @ 10V (1100 Ohms @30V) for 4-20mA	
Noise	<2mVRMS - for amplified	
Bandwith (-3dB)	DC to 1KHz(Typical)	

ordering information

MSP340 - ☐ – ☐ – ☐ – ☐ – ☐

Pressure Range
P = PSI
B = BAR

1 = 2 ft. cable*

Outputs
2 = 0 to 100mVDC
3 = .5 - 4.5VDC
4 = 1 to 5VDC, fixed (contact factory for availability)
5 = 4 to 20mA two wire (contact factory for availability)

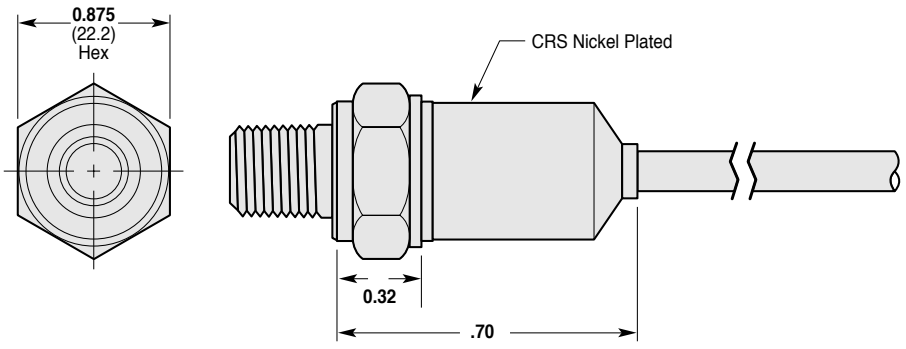
D=7/16-20 UNF *

* for others consult factory

Electrical Connections:

Outputs:	2	3/4	5
Red	+Supply	+Supply	+Supply
Black	-Supply	Ground	Output
White	-Output	Output	
Green	+Output		

mechanical dimensions



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