

# GENERAL PURPOSE TEMPERATURE-COMPENSATED PRESSURE SENSOR **MODEL 6-09**

The **Model 6-09** is uniquely designed for the broadest possible range of applications where accurate, reliable, high performance pressure measurement is required.

The small size of the **Model 6-09** (1" OD), media-isolated diaphragm & rugged construction is ideal for use in systems that require a temperature-compensated, constant voltage pressure sensor.

The **Model 6-09** operates over a wide temperature range, from -40°C to 125°C (-40°F to 257°F) and at pressure ranges from 15 PSI to 10,000PSI.

The **Model 6-09** utilizes a micro-machined silicon pressure sensing die that is isolated from all media by a 316L stainless steel diaphragm. Silicon, as a material, tolerates very high bending stresses with virtually no hysteresis. This allows very high electrical outputs with very little stress, which translates into excellent linearity, increased long-term stability & extreme reliability.

Micro-machined silicon pressure sensors provide accuracies as low as ±0.25% and long-term drift of less than 0.25% FSO for one (1) year. Proof pressures are greater than 2X rated pressure.

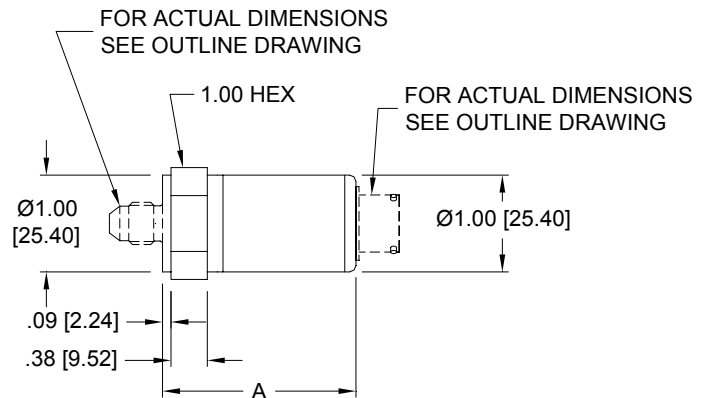
The **Model 6-09** is hermetically sealed by welding and conforms to NEMA 4 and 4X enclosure requirements (except for the vented gage configurations).



*Wide Choice of  
Pressure Ranges & Fittings*

*Highly  
Corrosion Resistant*

*Exceptional  
Long-term Stability*



TABULATION	
PRESSURE	'A'
15 PSI TO 300 PSI	1.50 [38.10]
500 PSI TO 10,000 PSI	2.00 [50.80]

OVERALL DIMENSIONS  
INCHES [mm]

4 WIRE	PIN	FUNCTION
RED	A(1)	+ SUPPLY
BLACK	B(2)	- SUPPLY
WHITE	C(3)	+ OUT
GREEN	D(4)	- OUT
	E	NOT USED
BARE	F	CASE GROUND

- *Process Control Systems*
- *Liquid Level Measurement*
- *Lubrication Systems*
- *Natural Gas Production*

- *Chemical Processing Systems*
- *Wastewater Treatment*
- *HVAC & Refrigeration*
- *Pulp & Paper Processing*

# MODEL 6-09

# GENERAL PURPOSE COMPENSATED PRESSURE TRANSDUCER

## Product Specifications

### Performance

Output Signal	10 mV/V
Output Impedance	5000 Ohms $\pm$ 10%
Accuracy L, R & H	$\pm$ 0.25%FSO @ 21°C (BFSL)
Zero & Span Offset	$\pm$ 1.0%FSO @ 21°C
Long-term Stability	$\pm$ 0.50%FSO/Year
Compensated Temperature	0°C to 70°C (32F° to 158°F)
Temperature Effect	$\pm$ 1.0% FSO over the
On Zero & Span	Compensated Range

### Operating

Input Power	10 VDC (15 VDC Max)
Dielectric Strength	500VAC, 50-60Hz, 5mA, 1min
Insulation Resistance	100 megohms @ 50 VDC
Proof Pressure	150% of Rated Range
Burst Pressure	200% of Rated Range
Weight	154g (5.5oz)

### Environmental

Operating Temperature	-40°C to 125°C (-40°F to 257°F)
Wetted Parts	316L SST
Vibration	15 G's, 10-2000Hz
Shock	100 G's for 11ms, Half-sine
Life	100 MM Full Scale Cycles

## Ordering Information

**6 - 09 X - XX X X - XX**

### Instrument Family

6 = Micro-machined Silicon

### Sensor Type

09 = Temperature Compensated

### Reference Pressure

0 = Absolute 1 = Vented Gage

2 = Sealed Gage

### Pressure Ranges

Absolute & Vented Gage	Sealed Gage
02 = 0 - 15 PSI	13 = 0 - 500 PSI
05 = 0 - 30 PSI	14 = 0 - 1000 PSI
06 = 0 - 50 PSI	16 = 0 - 2000 PSI
08 = 0 - 100 PSI	18 = 0 - 3000 PSI
10 = 0 - 200 PSI	19 = 0 - 4000 PSI
12 = 0 - 300 PSI	20 = 0 - 5000 PSI
	21 = 0 - 7500 PSI
	22 = 0 - 10,000 PSI

### Pressure Fittings

0 = MS33656-E4 Male	5 = 13mm Weld Ring
1 = 7/16-20 Straight, Male	w/O-ring Groove
2 = 1/4-18 NPT, Male	6 = G 1/4 British Std Pipe ,
3 = 1/8-27 NPT, Male	Female
4 = 13mm Weld Ring	7 = 1/8-27 NPT, Female

### Electrical Connections

0 = Pins Only 1 = 2" Ribbon, 4-wire

### Custom Configurations

00 = No Custom Requirements



*An Electromotive Solutions Company*

**ISO 9001:2000 & AS9100:2004 Certified**

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