

Model 6-09

BEI Edcliff Instruments Division

General Purpose Compensated Pressure Sensor

The Model 6-09 Compensated Sensor is uniquely designed for the broadest possible range of applications, including Process Control Systems, Natural Gas Production, Liquid Level Measurement, Gas Compressors, Lubrication Systems, Chemical Processing, Waste Water Treatment, Pulp & Paper Processing, Oil Production & Recovery, and others.

The Model 6-09 utilizes a Micro-Machined Silicon pressure sensing die that is isolated for all media by a 316L stainless steel diaphragm. Silicon, as a material, tolerates very high bending stresses with virtually no hysteresis! This provides very high electrical outputs with very little stress which translates into excellent linearity, increased long-term stability and reliability.

Micro-Machined Silicon pressure sensors provide accuracies down to $\pm 0.25\%$ with effectively no hysteresis and a long-term drift of less than 0.25% FSO for one year and proof pressures greater than 2x the rated pressure.

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



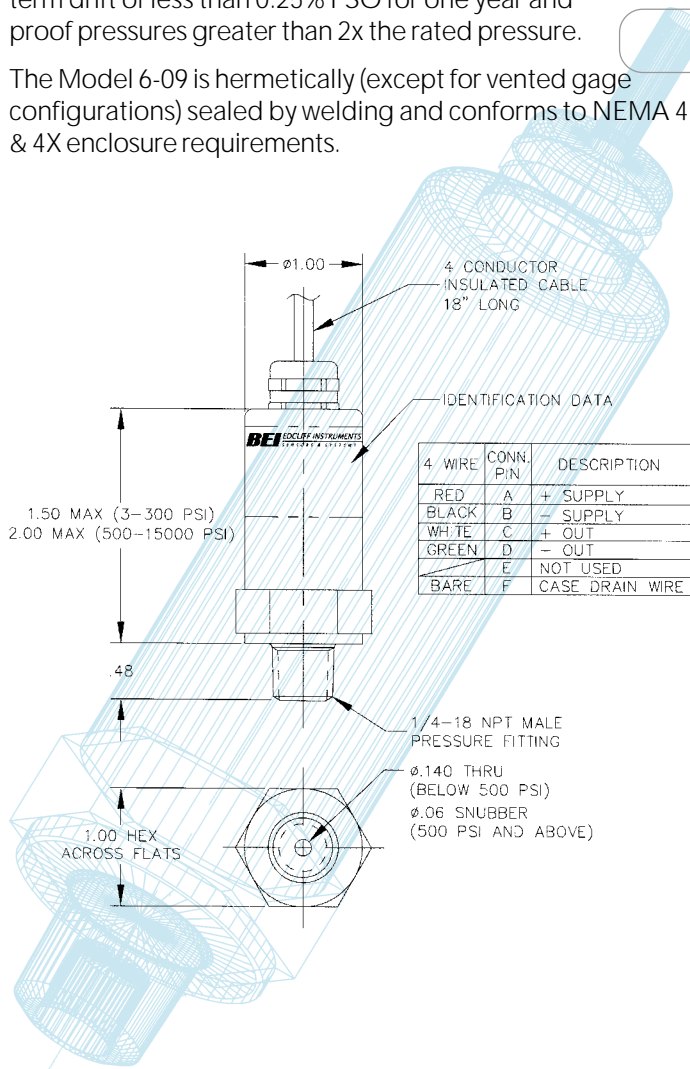
Unique products

Applications

- Process Control Systems
- Natural Gas Production
- Liquid Level Measurement
- Gas Compressors
- Lubrication Systems
- Chemical Processing
- Waste Water Treatment
- Pulp & Paper Processing

Features

- Broad Selection of Pressure Fittings & Electrical Connections
- Broad Selection of Pressure Ranges
- All-Welded 316 Construction, NEMA 4 & 4X
- Exceptional Long-Term Stability
- Static Error of $\pm 0.25\%$ FSO



Contact factory or local sales representative for outline drawings of the various configurations and the electrical pinouts.



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Product Specifications

IAW ANSI/ASA S37.1-75

PERFORMANCE

OUTPUT SIGNAL	10 mV/V
OUTPUT IMPEDANCE	5000 OHMS ±10%
ZERO & SPAN OFFSETS	±2.0% FSO @ 21°C
ACCURACY L & R	±0.25% of FSO @ 21°C (BFSL)
LONG-TERM STABILITY	±0.2% FSO/Year
COMPENSATED TEMPERATURE	0° to +70°C (+32° to +158°F)
TEMPERATURE EFFECT ON ZERO & SPAN	±0.5% FSO Over the Compensated Temperature Range

OPERATING

INPUT POWER	15 VDC, MAX
INPUT IMPEDANCE	15 KOHMS ±10%
INSULATION RESISTANCE	100 MEGOHMS @ 50 VDC
PROOF PRESSURE	200% of Rated Range
BURST PRESSURE	200% of Rated Range or 30,000 PSI
WEIGHT	0.2 Kilos (0.44 lbs)

ENVIRONMENTAL

MAXIMUM OPERATING TEMPERATURE	-40° to +125°C (-40° to +257°F)
WETTED PARTS	316 Cres
ENCLOSURE	NEMA 4 & 4X
VIBRATION	10 g's 10-2000 Hz
SHOCK	100 g's for 11 Milliseconds, Half-sine
LIFE	100 Million Cycles, MIN.

CERTIFICATIONS

Ordering Information

6 - 09 X - X X X X - X X

INSTRUMENT FAMILY

6 = Micro-machined Silicon

SENSOR TYPE

09 = Compensated Pressure Sensor

REFERENCE PRESSURE

0 = Absolute
1 = Vented Gage
2 = Sealed Gage

PRESSURE RANGES**

0 = 3 PSI#†	12 = 300 PSI#
1 = 5 PSI#	13 = 500 PSI*
2 = 15 PSI#	14 = 1000 PSI*
3 = 20 PSI#	15 = 1500 PSI*
4 = 25 PSI#	16 = 2000 PSI*
5 = 30 PSI#	17 = 3000 PSI*
6 = 50 PSI#	18 = 5000 PSI*
7 = 60 PSI#	19 = 6000 PSI*
8 = 100 PSI#	20 = 7500 PSI*
9 = 150 PSI#	21 = 10,000 PSI*
10 = 200 PSI#	22 = 15,000 PSI*†
11 = 250 PSI#	

PRESSURE FITTINGS

0 = MS33656E4 (SAE J514-4)
1 = SAE 7/16-20 Straight
2 = 1/4NPT, Male
3 = 1/8NPT, Male
4 = 1/4NPT, Female

ELECTRICAL CONNECTIONS

0 = PT1H-10-6P
1 = 1/2NPT 4-wire Cable Conduit
2 = PT1H-8-4P
3 = 4-Wire Shielded Cable
4 = DIN 43650 Form C
5 = Hirschmann ELST 412
6 = D38999/25YB98PN
7 = D38999/25YB98PA

CUSTOM CONFIGURATIONS

Available Absolute or Vented Gage
* Available Sealed Gage Only
** Calibration in bars is also available. Contact factory for details.
† Consult Factory

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SENSORS & SYSTEMS COMPANY

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