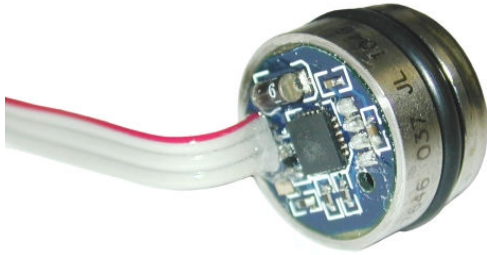


86A



(Image displays Absolute type)

- 316L SS Pressure Sensor
- Small Profile
- 0.5 - 4.5V High Level Output
- Gage, Absolute
- ASIC Calibrated

DESCRIPTION

The 86A is a small profile, media compatible, piezoresistive silicon pressure sensor packaged in a 316L stainless steel housing. The 86A is designed for o-ring mounting. The sensing package utilizes silicone oil to transfer pressure from the 316L stainless steel diaphragm to the sensing element.

The 86A is designed for high performance, low pressure applications. A custom ASIC is used for temperature compensation, offset correction, and provides an amplified output of 0.5 to 4.5V.

For a similar sensor with a plastic threaded fitting, refer to the LM pressure transducer.

FEATURES

- O-Ring Mount
- -40°C to +125°C Operating Temperature Range
- $\pm 0.25\%$ Pressure Non Linearity
- Up to $\pm 3.0\%$ Total Error Band
- Solid State Reliability

APPLICATIONS

- Level Controls
- Tank Level Measurement
- OEM Equipment
- Corrosive Fluids and Gas Measurement Systems
- Sealed Systems
- Manifold Pressure Measurement
- Barometric Pressure Measurement
- Submersible Depth Monitoring

STANDARD RANGES

Range	psig	psia	Range	Barg	Bara
0 to 1	•		0 to .07	•	
0 to 2	•		0 to .14		
0 to 5	•		0 to .35	•	
0 to 15	•	•	0 to 1	•	•
0 to 30	•	•	0 to 2	•	•
0 to 50	•	•	0 to 5	•	•
0 to 100	•	•	0 to 7	•	•
0 to 150	•	•	0 to 10	•	•

*Note: Intermediate ranges available

PERFORMANCE SPECIFICATIONS

Supply Voltage: 5.0Vdc

Ambient Temperature: 25°C (unless otherwise specified)

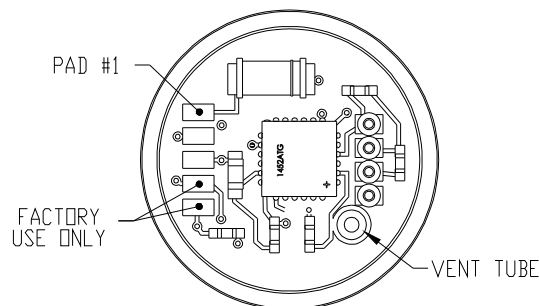
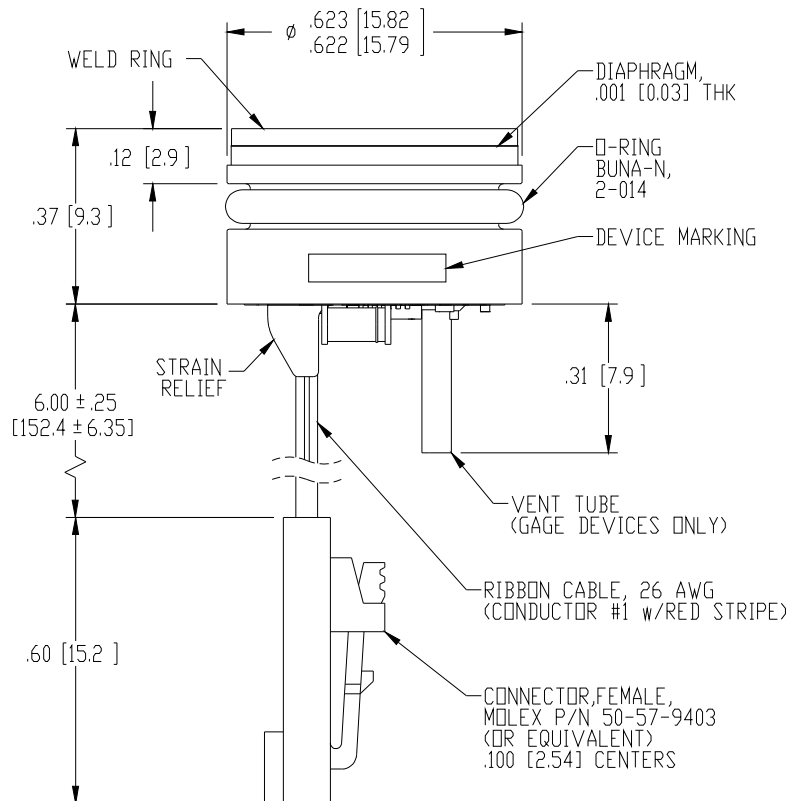
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span		4.0		V	
Zero Pressure Output		0.5		V	
Pressure Non Linearity	-0.25		0.25	%Span	1
Pressure Hysteresis	-0.15		0.15	%Span	
Repeatability		±0.05		%Span	
Temperature Error – Span	-1.0		1.0	%Span	2
Temperature Error – Offset	-1.0		1.0	%Span	2
Accuracy (combined linearity, hysteresis, & repeatability)	-0.5		0.5	%Span	1
Total Error Band (includes calibration errors above & temperature effects over the compensated range)		5psi: ±5% MAX >5psi: ±3% MAX		%Span	
Long Term Stability – Span and Offset		±0.1		%Span	
Supply Voltage	4.75	5.00	5.25	V	3
Insulation Resistance (50Vdc)	50			MΩ	4
Pressure Overload			2.5X	Rated	
Pressure Burst			5X	Rated	5
Compensated Temperature	0		+105	°C	
Operating Temperature	-40		+125	°C	
Storage Temperature	-40		+150	°C	
Media – Pressure Port	Liquids and Gases compatible with 316L Stainless Steel and EPDM (O-Ring)				

Notes

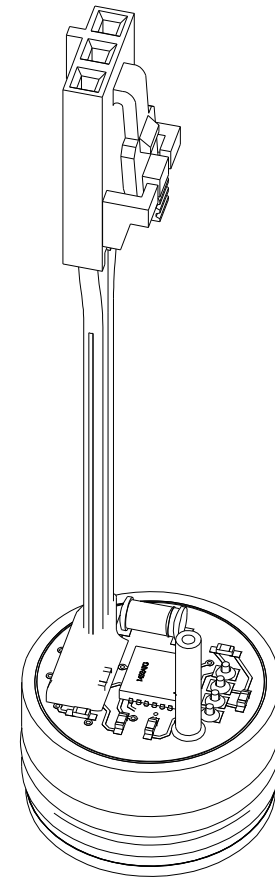
1. Best fit straight line.
2. Over the compensated temperature range with respect to 25°C.
3. Guarantees output/input ratiometricity.
4. Between case and sensing element.
5. The maximum pressure that can be applied to a transducer without rupture of either the sensing element or transducer.

DIMENSIONS

DIMENSIONS ARE IN INCHES [mm]



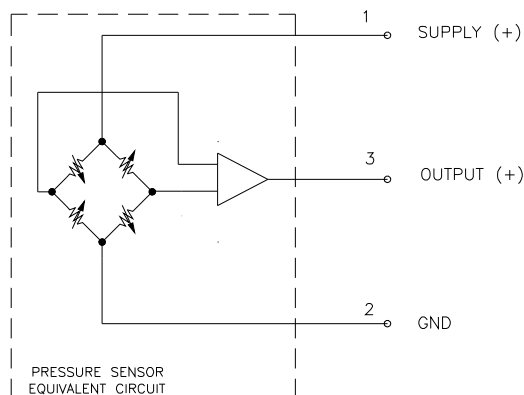
VIEW SHOWN w/o CABLE
AND CONNECTOR FOR CLARITY



(Image displays Gage type)

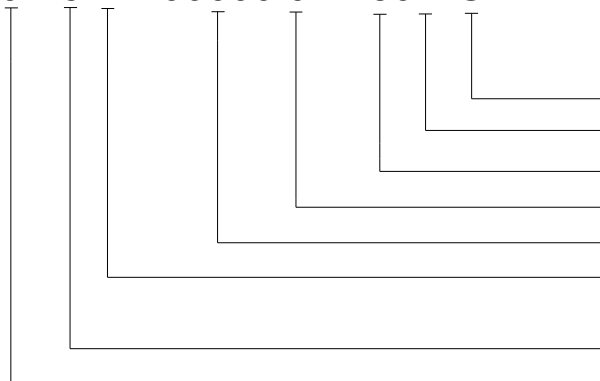
PAD/WIRE NO	FUNCTION
1	+Vin
2	GND
3	+Vout

CONNECTIONS



ORDERING INFORMATION

86A 3 R - 00000 0 - 150P G



Pressure Unit (G = Gage, A = Absolute)

Units (P = psi, B = Bar)

Pressure Range

Port Type (0 = Standard, X = Special)

Custom P/N (00000 = Standard Product)

Connection (R = 6" Ribbon Cable, C = 6" Ribbon Cable with Connector,
P = Solder Pads, X = Special Connection)

Output (3 = 0.5 to 4.5V, X = Special Output)

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

Measurement Specialties
(Europe), Ltd.
26 Rue des Dames
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

Measurement Specialties
(China), Ltd.
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
Sales: pfg.cs.asia@meas-spec.com

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.