



(Image displays Absolute type)



86A

SPECIFICATIONS

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

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.



your distributor
www.amsys.de

FEATURES

- ◆ O-Ring Mount
- ◆ -20°C to +85°C Operating Temperature Range
- ◆ ±1.0% Pressure Non Linearity
- ◆ Down to ±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	◆	◆

*Intermediate ranges available, contact factory.

PERFORMANCE SPECIFICATIONS

Supply Voltage: 5.0Vdc

Ambient Temperature: 25°C (unless otherwise specified)

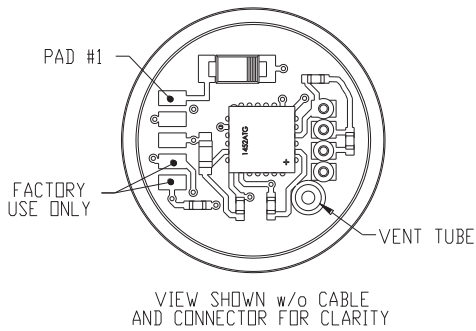
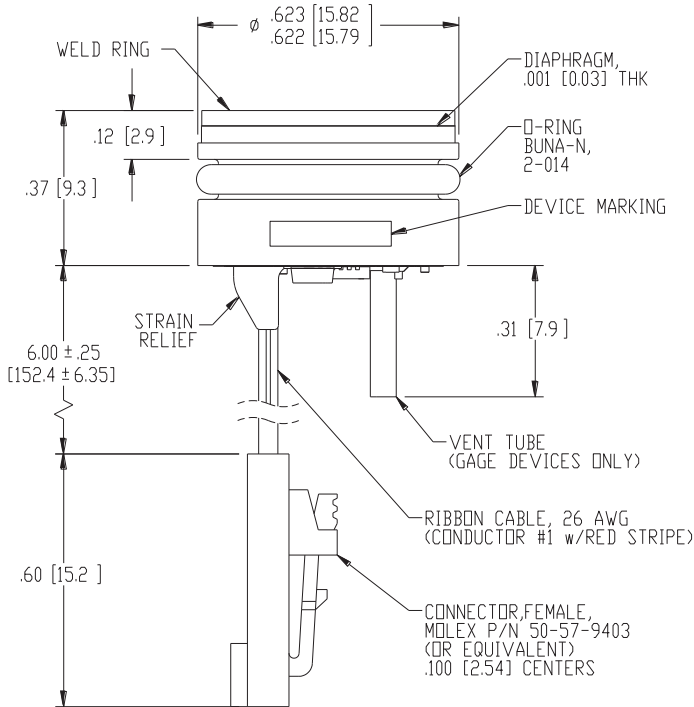
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Full Scale Output Span		4.5		V	
Zero Pressure Output (Offset)		0.5		V	
Pressure Non Linearity	-1	±0.3	1	%Span	1
Pressure Hysteresis	-0.1		0.1	%Span	
Repeatability		±0.02		%Span	
Temperature Error – Span (0°C to 40°C)		1, 2psi and .07bar: ±2.0 ≥5psi or ≥.35bar: ±1.5		%Span	2
Temperature Error – Zero (0°C to 40°C)		1, 2psi and .07bar: ±2.0 ≥5psi or ≥.35bar: ±1.5		%Span	2
Accuracy (combined linearity, hysteresis & repeatability)		0.25		%Span	1
Total Error Band (includes calibration errors above & temperature effects over the compensated range)		1, 2psi and .07bar: ±7 5psi and .35bar: ±5 >5psi or .35bar: ±3		%Span	
Supply Voltage	4.75	5.00	5.25	V	3
Insulation Resistance (50Vdc)	50			MΩ	4
Pressure Overload			3X	Rated	
Compensated Temperature	0		+40	°C	
Operating Temperature	-20		+85	°C	
Media – Pressure Port	Liquids and Gases compatible with 316L Stainless Steel				

Notes

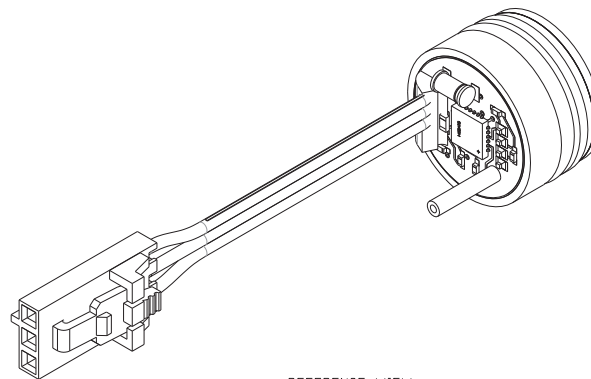
1. Best fit straight line.
2. Over the compensated temperature range with respect to 25°C.
3. Guarantees output/input ratiometricity.
4. Between case and sensing element.
5. The maximum pressure that can be applied to a transducer without rupture of either the sensing element or transducer.

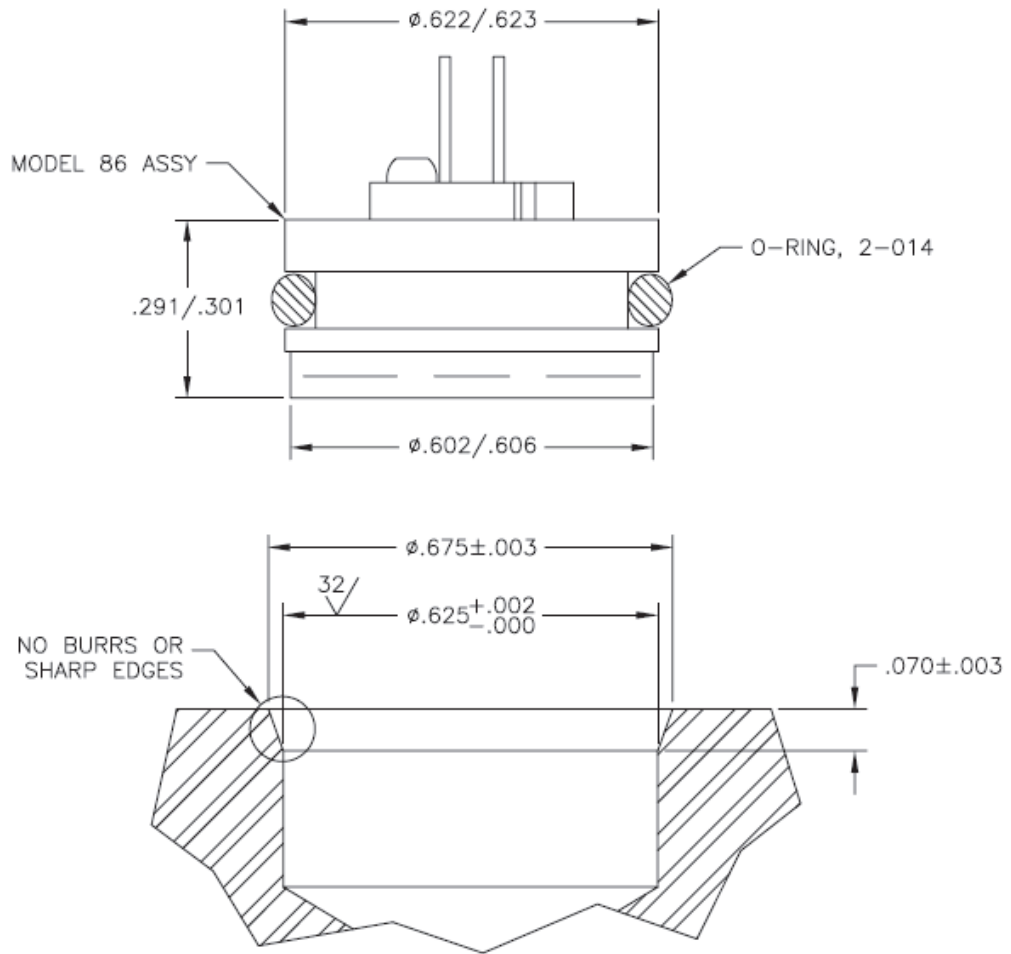
DIMENSIONS

DIMENSIONS ARE IN INCHES [mm]



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





ORDERING INFORMATION

86A Model Name	3	X	00000	0	001P	G
Output						
3 = 0.5 to 4.5V Ratio						
Connection						
P = Solder Pads R = 6" Ribbon Cable						
C = 6" Ribbon cable with Connector						
X = Special Connector						
Custom P/N						
0's = Standard P/N						
Port Type						
0 = Standard X = Special						
Pressure Range						
See Pressure Range Table						
Pressure Unit						
A = Absolute G = Gage						

Pressure Range	
psi	bar
001P*	.07B*
002P*	
005P*	.35B*
015P	001B
030P	002B
050P	005B
100P	007B
150P	010B

*Gage Only



your distributor
 AMSYS GmbH & Co.KG
 An der Fahrt 4, 55124 Mainz, Germany
 Tel. +49 (0) 6131 469 875 0
 info@amsys.de | www.amsys.de

NORTH AMERICA
 Measurement Specialties, Inc.,
 a TE Connectivity Company
 Tel: 800-522-6752
 Email: customercare.frm@te.com

EUROPE
 Measurement Specialties (Europe), Ltd.,
 a TE Connectivity Company
 Tel: 800-440-5100
 Email: customercare.lcsb@te.com

ASIA
 Measurement Specialties (China), Ltd.,
 a TE Connectivity Company
 Tel: 0400-820-6015
 Email: customercare.shzn@te.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.
 Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.
 The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.
 © 2015 TE Connectivity Ltd. family of companies All Rights Reserved.