



85 Flush Mount

SPECIFICATIONS

- ◆ **316L SS**
- ◆ **Flush Diaphragm**
- ◆ **0 - 100mV Output**
- ◆ **Absolute and Gage**
- ◆ **Temperature Compensated**

The 85 Flush Mount is a small profile, media compatible, piezoresistive silicon pressure sensor packaged in a 316L stainless steel housing. The 85 Flush Mount is designed for o-ring mounting where the diaphragm must not be shrouded by a weld ring or fitting.

The sensing package utilizes silicon oil to transfer pressure from the 316L stainless steel diaphragm to the sensing element. A ceramic substrate is attached to the package that contains laser-trimmed resistors for temperature compensation and offset correction. An additional laser trimmed resistor is included which can be used to adjust an external differential amplifier and provide span interchangeability to within $\pm 1\%$.

FEATURES

- ◆ O-Ring Flush Mount
- ◆ 0°C to 70°C Compensated Temperature
- ◆ $\pm 0.1\%$ Pressure Non Linearity
- ◆ $\pm 0.75\%$ Temperature Performance
- ◆ $\pm 1.0\%$ Interchangeable Span
(provided by gain set resistor)
- ◆ Solid State Reliability

APPLICATIONS

- ◆ Dialysis Machines
- ◆ Infusion Pumps
- ◆ Medical Systems
- ◆ Pressure Transmitters
- ◆ Level Systems

STANDARD RANGES

Range	psig	psia
0 to 15	◆	◆
0 to 30	◆	◆
0 to 50	◆	◆
0 to 100	◆	◆
0 to 300	◆	◆
0 to 500	◆	◆

PERFORMANCE SPECIFICATIONS

Supply Current: 1.5mA

Ambient Temperature: 25°C (unless otherwise specified)

Parameters are specified for the compensated versions only

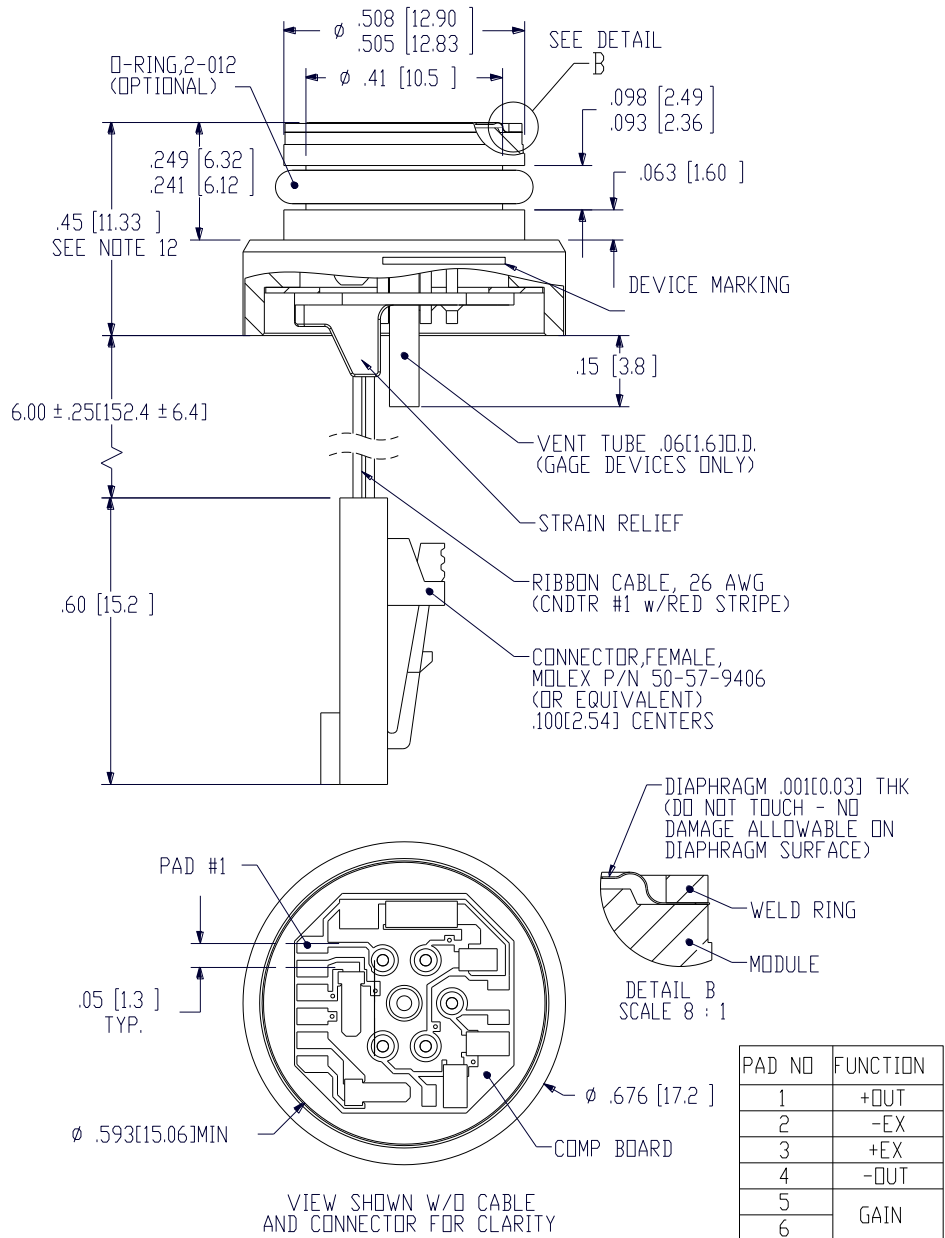
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	65	100	150	mV	1
Zero Pressure Output	-2		2	mV	2
Pressure Non Linearity	-0.1		0.1	%Span	3
Pressure Hysteresis	-0.05		0.05	%Span	
Repeatability		±0.02		%Span	
Input Resistance	2000	3500	5800	Ω	
Output Resistance	4000		6000	Ω	
Temperature Error – Span	-0.75		0.75	%Span	4
Temperature Error – Offset	-0.75		0.75	%Span	4
Thermal Hysteresis – Span	-0.25		0.25	%Span	4
Thermal Hysteresis – Offset	-0.25		0.25	%Span	4
Long Term Stability – Span		±0.1		%Span/year	
Long Term Stability – Offset		±0.1		%Span/year	
Supply Current	0.5	1.5	2.0	mA	5
Output Load Resistance	5			MΩ	6
Insulation Resistance (50Vdc)	50			MΩ	7
Output Noise (10Hz to 1kHz)		1.0		uV p-p	
Response Time (10% to 90%)		1.0		Ms	
Pressure Overload			3X	Rated	8
Pressure Burst			4X	Rated	9
Compensated Temperature	0		70	°C	
Operating Temperature	-20		+125	°C	10
Storage Temperature	-50		+125	°C	10
Media – Pressure Port	Liquids and gases compatible with 316/316L Stainless Steel				

Notes

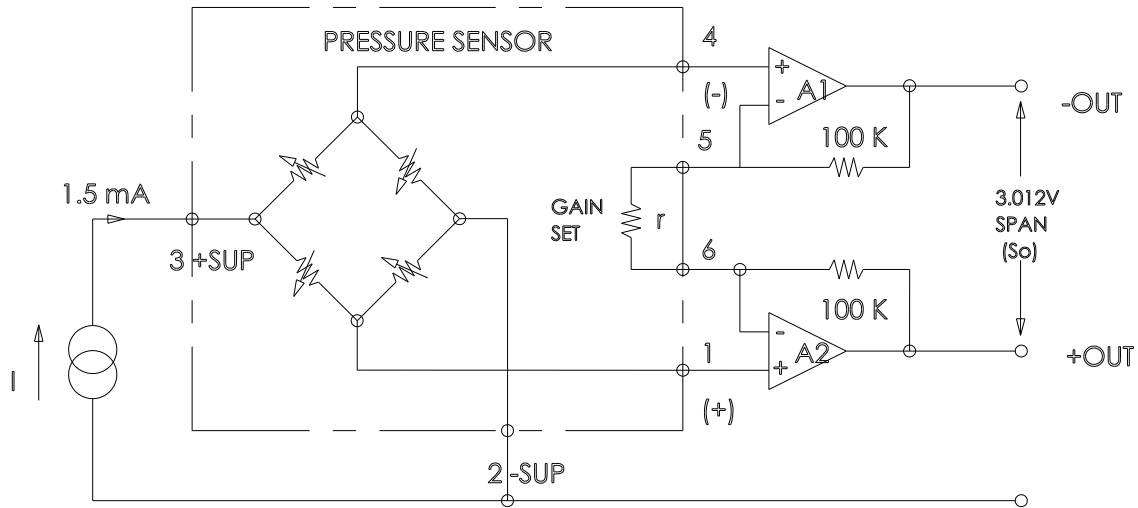
1. For amplified output circuits, 3.012V ± % interchangeability with gain set resistor. See Application Schematic.
2. Measured at vacuum for Absolute (A), ambient for Gage (G).
3. Best fit straight line.
4. Over the compensated temperature range with respect to 25°C.
5. Guarantees output/input ratiometricity.
6. Load resistance to reduce measurement errors due to output loading.
7. Between case and sensing element.
8. The maximum pressure that can be applied without changing the transducer's performance or accuracy.
9. The maximum pressure that can be applied to a transducer without rupture of either the sensing element or transducer.
10. Maximum temperature range for product with standard cable and connector is -20°C to +105°C.

DIMENSIONS

DIMENSIONS ARE IN INCHES [mm]



APPLICATION SCHEMATIC



ORDERING INFORMATION

85	-	050	G	-	F	C	T
Model	-	Pressure Range	Pressure Type	-	Diaphragm	Electrical	Vent
85	-	015 030 050 100 300 500	G = Gage A = Absolute	-	F = Flush Diaphragm	P = Solder Pads R = Ribbon Cable C = Cable w/ Connector	Blank = No Tube T = Tube

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: 800-522-6752
Email: customercare.frmt@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.