



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 ~ 70°C Compensate Temperature
- $\pm 0.1\%$ Pressure Non Linearity
- $\pm 0.75\%$ Temperature Performance
- 1.0% Interchangeable Span (provided by gain set resistor)
- Solid State Reliability

APPLICATIONS

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

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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				

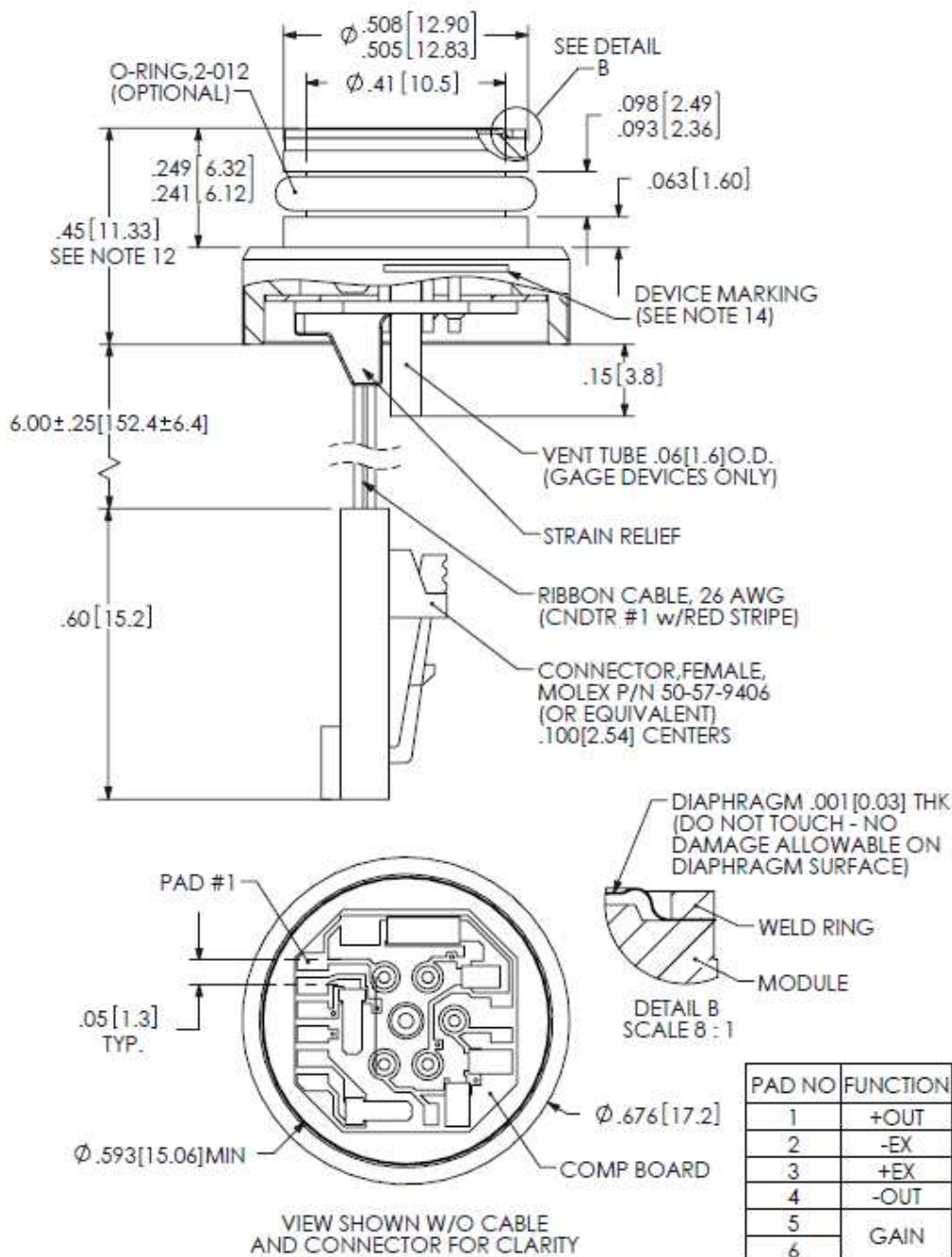
Notes

- For amplified output circuits, 3.012V ± % interchangeability with gain set resistor. See Application Schematic.
- Measured at vacuum for Absolute (A), ambient for Gage (G).
- Best fit straight line.
- Over the compensated temperature range with respect to 25°C.
- Guarantees output/input ratiometricity.
- Load resistance to reduce measurement errors due to output loading.
- Between case and sensing element.
- The maximum pressure that can be applied without changing the transducer's performance or accuracy.
- The maximum pressure that can be applied to a transducer without rupture of either the sensing element or transducer.
- Maximum temperature range for product with standard cable and connector is -20°C to +105°C.
- Standard Gage Units are not recommended for vacuum applications. For vacuum applications below 1/2 atmosphere, consult factory.
- Dimensions includes diaphragm height.
- Shipping/packaging requirements:
The stainless-steel diaphragm is protected by a plastic CAP. Each unit will be package individually in a plastic vial with anti-static foam.
- Device marking:
Each part shall be identified with Model Number, Pressure Range, Type, lot Number, Serial number and Date Code.
- Direct mechanical contact with diaphragm is prohibited. Diaphragm surface must remain free of defects (scratches, punctures, dents, fingerprints, etc.) for device to operate properly. Caution is advised when handling parts with exposed diaphragms. Use protective cap whenever devices are not in use.



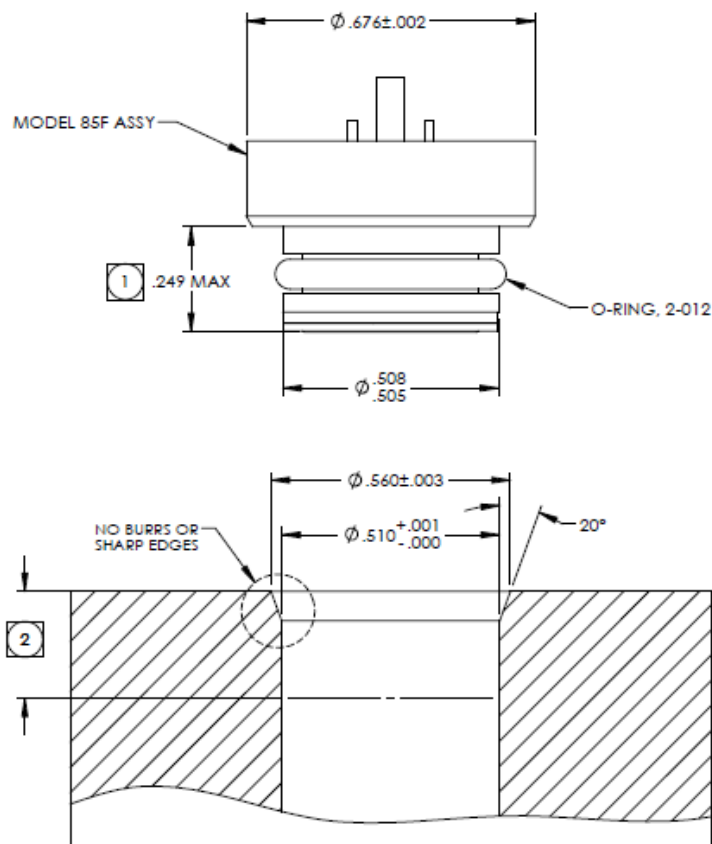
DIMENSIONS

DIMENSIONS ARE IN INCHES [mm]



RECOMMENDED MOUNTING DIMENSIONS

Dimensions are in inches



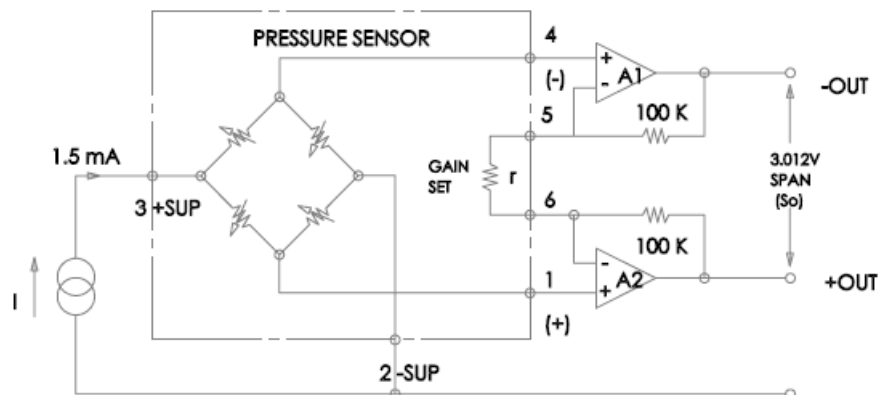
NOTES:



DIMENSION SHOWN INCLUDES DIAPHRAGM HEIGHT.

DIMENSION INDICATED IS DETERMINED BY CUSTOMER REQUIREMENTS. DEPTH OF MOUNTING INTERFACE SHOULD CONSIDER DIAPHRAGM HEIGHT DIMENSION AS NOTED.

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

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