





- 316L SS Pressure Sensor
- Small Profile
- 0 100mV Output
- Absolute and Gage Low Pressure
- Temperature Compensated

DESCRIPTION

The Model 85 is a small profile, media compatible, piezoresistive silicon pressure sensor packaged in a 316L stainless steel housing. The Model 85 is offered in a weldable package or with a variety of threaded fittings such as 1/4 and 1/8NPT, 1/4BSP as well as custom process fittings.

The Model 85 is designed for OEM applications where compatibility with corrosive media is required. 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 ±1%.

Please refer to the Model 85 UltraStable[™] datasheet for information on products with operating pressures greater than 5 psi.

FEATURES

- Weldable and Threaded Process Fittings
- -20°C to +70°C Operating
 Temperature Range
- ±0.2% Pressure Non Linearity
- 1.0% Interchangeable Span (provided by gain set resistor)
- Solid State Reliability

APPLICATIONS

- Medical Instruments
- Process Control
- Fresh & Waste Water Measurements
- Partial Vacuum Gas Measurement
- Pressure Transmitters
- Tank Level Systems (RV & Industrial)

STANDARD RANGES

Range 0 to 5

psig

psia



PERFORMANCE SPECIFICATIONS

Supply Current: 1.5mA

Ambient Temperature: 25°C (unless otherwise specified) Parameters are specified for the compensated versions only

PARAMETERS	MIN	TYP	МАХ	UNITS	NOTES	
Span	50	100	150	mV	1	
Zero Pressure Output	-2		2	mV		
Pressure Non Linearity	-0.2		0.2	%Span	2	
Pressure Hysteresis	-0.10	±0.02	0.10	%Span		
Repeatability		±0.02		%Span		
Input Resistance	2500	5000	5800	Ω		
Output Resistance	3000		30k	Ω		
Temperature Error – Span	-1.0		1.0	%Span	3	
Temperature Error – Offset	-2.5		2.5	%Span	3	
Thermal Hysteresis – Span	-0.25	±0.05	0.25	%Span	3	
Thermal Hysteresis – Offset	-0.25	±0.05	0.25	%Span	3	
Long Term Stability – Span		±0.1		%Span	4	
Long Term Stability – Offset		±0.25		%Span	4	
Supply Current	0.5	1.5	2.0	mA		
Insulation Resistance (50Vdc)	50			MΩ	5	
Pressure Overload			20	psi		
Compensated Temperature	0		50	°C		
Operating Temperature	-20		+70	°C		
Storage Temperature	-50		+125	°C	6	
Weight			13	grams		
Media – Pressure Port	Liquids and Gas	Liquids and Gases compatible with 316L Stainless Steel				
Media – Reference Port	Compatible with Stainless Steel	Compatible with Silicon, Pyrex, Gold, Fluorosilicone RTV and 316L Stainless Steel				

Notes

1. Ratiometric to supply current.

2. Best fit straight line.

3. Maximum temperature error between 0°C and 50°C with respect to 25°C.

4. Long term stability over a one year period with constant current and temperature.

5. Minimum resistance between case and pins.

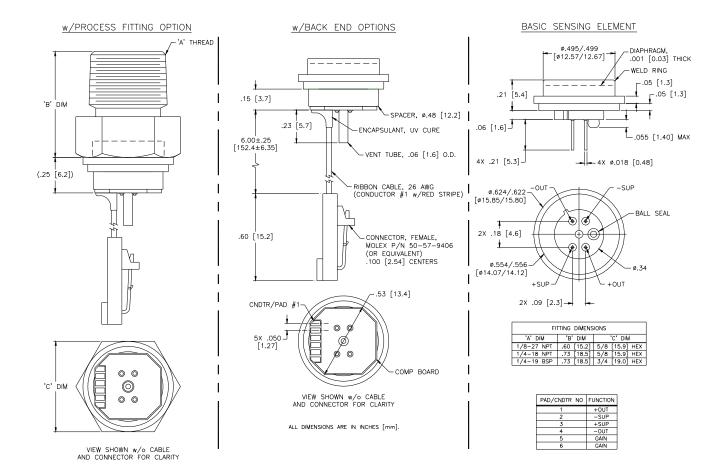
6. Maximum temperature range for product with standard cable and connector is -20°C to +105°C.

7. Gage units not recommended for high vacuum applications. For high vacuum applications consult factory.

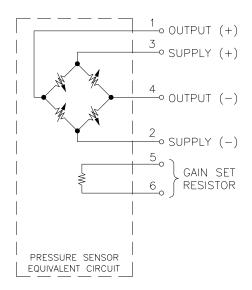


Model 85 5psi

DIMENSIONS



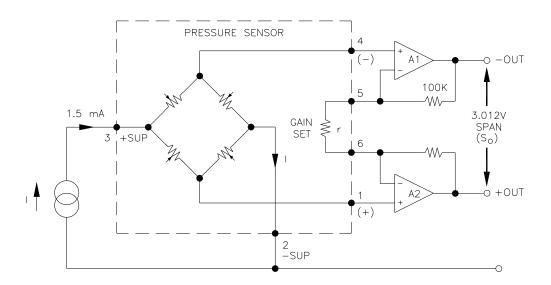
CONNECTIONS





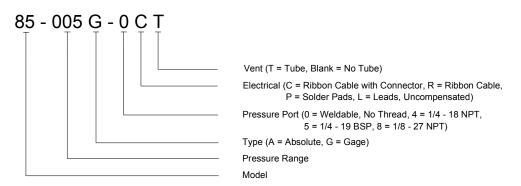
Model 85 5psi

APPLICATION SCHEMATIC



APPLICATION SCHEMATIC

ORDERING INFORMATION



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ASIA

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