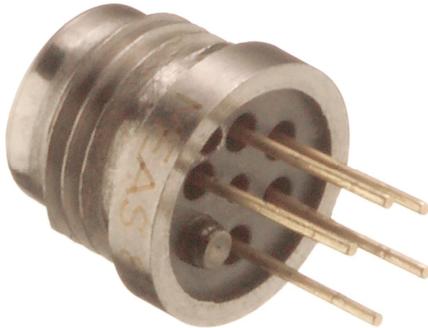


## Model 89 UltraStable™



- 316L SS Pressure Sensor
- High Pressure
- 0 - 100mV Output
- Absolute

### DESCRIPTION

The Model 89 UltraStable™ is a small profile, media compatible, piezoresistive silicon pressure sensor packaged in a 316L stainless steel housing. The Model 89 UltraStable™ features 5/16-32 UNEF threads and can be welded in place. It can also be packaged in a variety of threaded fittings such as 1/4 and 1/8NPT, 1/4BSP as well as custom process fittings. Contact factory for threaded fitting options.

The Model 89 UltraStable™ is designed for high pressure 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.

### FEATURES

- Weldable and Threaded Process Fittings
- -40°C to +125°C Operating Temperature Range
- ±0.25% Pressure Non Linearity
- Solid State Reliability

### APPLICATIONS

- Hydraulic Controls
- Process Control
- Pressure Calibrators
- Refrigeration/Compressors

### STANDARD RANGES

Range	psia
0 to 1000	•
0 to 3000	•
0 to 5000	•

# Model 89 UltraStable™

## PERFORMANCE SPECIFICATIONS

Supply Current: 1.5mA

Ambient Temperature: 25°C (unless otherwise specified)

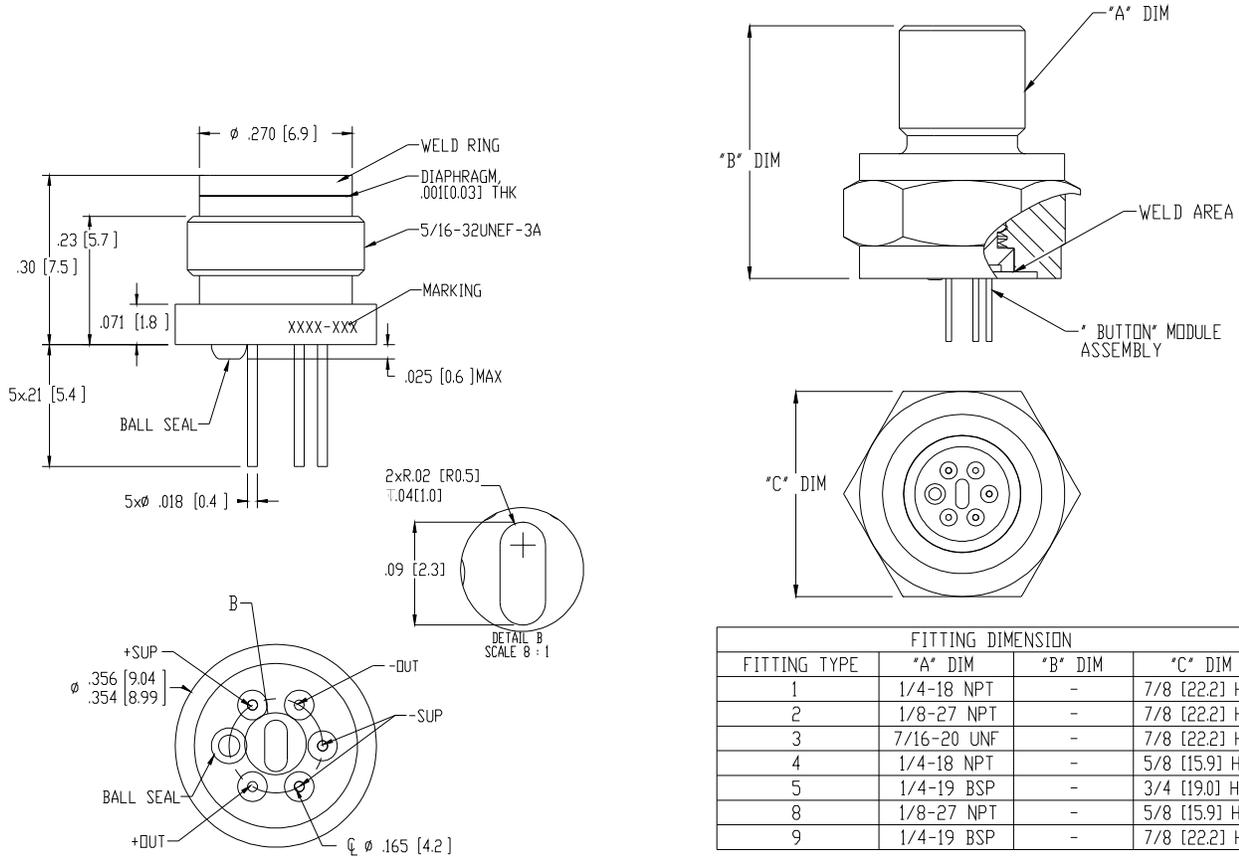
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Sensitivity	15	22	28	mV/V@FS	
Zero Pressure Output	-4		4	mV	
Pressure Non Linearity	-0.25		0.25	%Span	1
Pressure Hysteresis		±0.05		%Span	
Repeatability		±0.02		%Span	
Input/Output Resistance	4000	4500	5000	Ω	2
Temperature Coefficient – Resistance	1300	1510	1750	ppm/°C	3
Temperature Coefficient – Sensitivity	-1450	-1250	-1000	ppm/°C	3
Temperature Coefficient – Offset		2		uV/V/°C	3
Thermal Hysteresis – Span		±0.05		%Span	3
Thermal Hysteresis – Offset		±0.05		%Span	3
Long Term Stability – Span		±0.1		%Span	4
Long Term Stability – Offset		±0.1		%Span	4
Supply Current	0.5	1.5	2.0	mA	
Supply Voltage		5.0	12.0	V	
Insulation Resistance (50Vdc)	50			MΩ	5
Pressure Overload			3X	Rated	6
Operating Temperature	-40		+125	°C	
Storage Temperature	-50		+125	°C	
Weight			9	grams	
Media – Pressure Port	Liquids and Gases compatible with 316L Stainless Steel				

### Notes

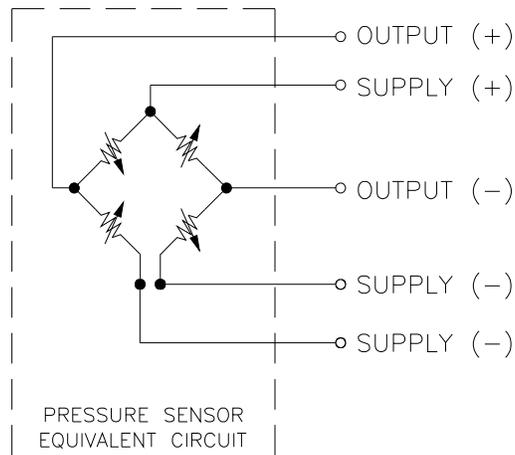
1. Best fit straight line.
2. Measured with both -SUP pins shorted together.
3. Over the temperature range -20°C to +85°C with respect to 25°C.
4. Long term stability over a one year period with constant current and temperature.
5. Minimum resistance between case and pins.
6. 2X maximum for 5000 psi devices.

# Model 89 UltraStable™

## DIMENSIONS



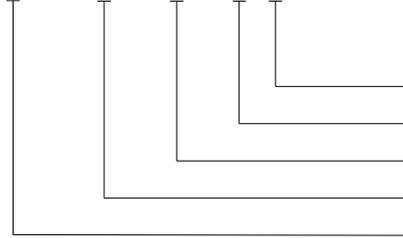
## CONNECTIONS



# Model 89 UltraStable™

## ORDERING INFORMATION

89 - 01K A - 0 L



Electrical (L = Leads)  
Fitting Type  
Type (A = Absolute)  
Pressure Range  
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](mailto: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](mailto:pfg.cs.emea@meas-spec.com)

### ASIA

Measurement Specialties  
(China), Ltd.  
F1.6-4D, Tian An Development  
Compound  
Shenzhen, China 518048  
Tel: +86 755 8330 1004  
Fax: +86 755 8330 6797  
Sales: [pfg.cs.asia@meas-spec.com](mailto:pfg.cs.asia@meas-spec.com)

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