

4416 Pressure Sensor

PC Board Mountable Pressure Sensor

mV Output

Gage Pressure

Temperature Compensated

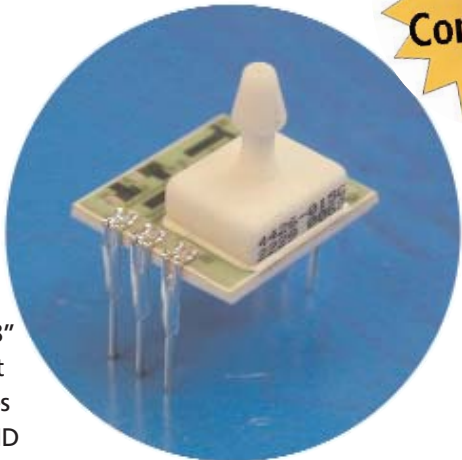
DESCRIPTION

The **4416** is a temperature compensated, piezoresistive silicon pressure sensor packaged in a dual-in-line configuration and intended for cost sensitive applications where excellent performance at low pressure ranges is required.

Integral temperature compensation is provided over a range of 0-50°C using laser-trimmed resistors.

The pressure sensor is available in gage pressure ranges

in 0-5" H2O and 0-10 H2O. The pressure port is a 1/8" barbed port which mates with 3/32" ID tubing. The tube is vertically mounted to the printed circuit board. For a horizontally mounted tube in differential and gage pressure, refer to model 4415.



FEATURES

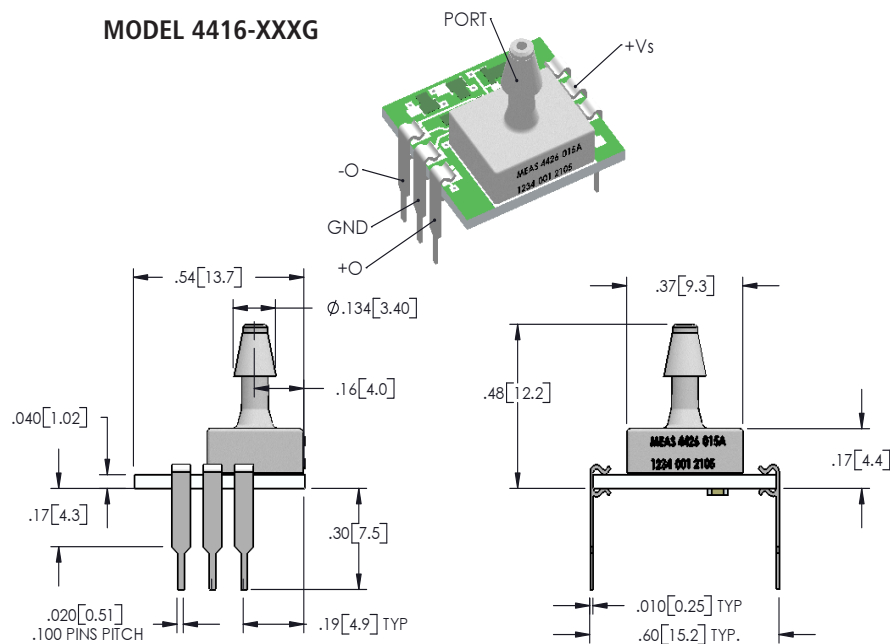
- ◆ Dual-in-line Package
- ◆ Low Pressure Ranges
- ◆ 0°C to +50°C Compensated Temperature Range
- ◆ ±0.3% Pressure Non-linearity
- ◆ Solid State Reliability

APPLICATIONS

- ◆ Medical Instruments
- ◆ Pneumatic Controls
- ◆ HVAC
- ◆ Leak Detection

dimensions

MODEL 4416-XXXG



(Dimensions in inches [mm])

standard ranges

Range	in. H2O
5	•
10	•

4416 Pressure Sensor

performance specifications

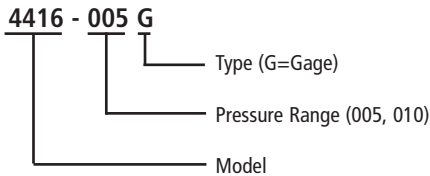
All parameters measured at 12V and at 25°C after 10 second warm up unless otherwise specified.

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Full Scale Output (0-5"H2O)	19.5	20.0	20.5	mV	1
Full Scale Output (0-10"H2O)	24.5	25.0	25.5	mV	1
Zero Pressure Output	-1	±0.2	1	mV	1
Pressure Non Linearity	-0.3		0.3	% Span	2
Pressure Hysteresis		±0.2		% Span	
Input Resistance	4000	15000	35000	Ω	
Output Resistance	2750	5000	6000	Ω	
Temperature Error – Span (0 to +50°C)	-1		1	% Span	3
Temperature Error – Zero (0 to +50°C)	-0.75	±0.2	0.75	mV	3
Supply Voltage		12	20	V	
Long Term Stability (Offset & Span)		±0.1		mV	4
Pressure Overload			3	psi	5
Compensated Temperature Range	0°C to +50°C				
Operating Temperature Range	-25°C to +85°C				
Storage Temperature Range	-40°C to +125°C				
Solder Temperature	260°C Max 5 Sec. 6				
Humidity	0 to 85% RH 7				
Media	Non-Corrosive Dry Gases Compatible with Silicon, Pyrex, RTV, Ceramic & Gold				
Weight	3 g				

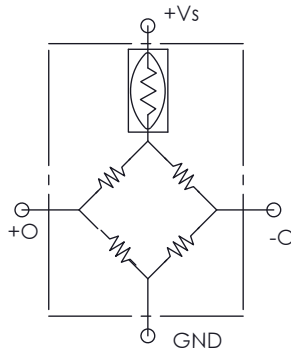
Notes

1. Ratiometric to supply voltage.
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.
5. Max differential pressure is 3 psi, max common mode pressure is 150 psi.
6. For more details refer to 4425/4426 Mounting Application Note.
7. For high humidity applications, contact factory.

ordering information



connections



EQUIVALENT CIRCUIT

Distribuidor

Brasil e América do Sul

CONTATO

Endereço

Rua Sete de Setembro, 2671 - Centro
13560-181 - São Carlos - SP - Brasil

Telefone

+55 (16) 3371-0112

Fax

+55 (16) 3372-7800

Internet

www.metrolog.net
metrolog@metrolog.net



Metrolog Controles de Medição