

Model Number

740B02

UNIAXIAL ICP® STRAIN SENSOR

Revision: G

ECN #: 22938

	ENGLISH	SI	
Performance			
Sensitivity ($\pm 20\%$)	50 mV/ $\mu\epsilon$	50 mV/ $\mu\epsilon$	[3]
Measurement Range	100 pk $\mu\epsilon$	100 pk $\mu\epsilon$	
Frequency Range	0.5 to 100,000 Hz	0.5 to 100,000 Hz	[4]
Bandwidth Resolution (1 to 10,000 Hz)	0.6 n ϵ	0.6 n ϵ	[1]
Non-Linearity	$\leq 1\%$	$\leq 1\%$	[5]
Transverse Sensitivity	$\leq 5\%$	$\leq 5\%$	[1]
Environmental			
Overload Limit (Shock)	$\pm 10,000$ g pk	$\pm 98,000$ m/s ² pk	
Temperature Range	-65 to +250 °F	-53 to +121 °C	
Acceleration Sensitivity	0.001 $\mu\epsilon$ /g	0.0001 $\mu\epsilon$ /(m/s ²)	[2][1]
Electrical			
Excitation Voltage	20 to 30 VDC	20 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	<100 ohm	<100 ohm	
Output Bias Voltage	8 to 14 VDC	8 to 14 VDC	
Discharge Time Constant	1 to 3 sec	1 to 3 sec	
Spectral Noise (1 Hz)	210 p ϵ /√Hz	210 p ϵ /√Hz	[1]
Spectral Noise (10 Hz)	70 p ϵ /√Hz	70 p ϵ /√Hz	[1]
Spectral Noise (100 Hz)	20 p ϵ /√Hz	20 p ϵ /√Hz	[1]
Spectral Noise (1 kHz)	5 p ϵ /√Hz	5 p ϵ /√Hz	[1]
Spectral Noise (10 kHz)	1 p ϵ /√Hz	1 p ϵ /√Hz	[1]
Physical			
Sensing Element	Quartz	Quartz	
Housing Material	Titanium	Titanium	
Sealing	Epoxy	Epoxy	
Size (Width x Length x Height)	0.2 in x 0.6 in x 0.07 in	5.1 mm x 15.2 mm x 1.8 mm	
Weight	0.02 oz	0.5 gm	[1]
Electrical Connector	Integral Cable	Integral Cable	
Electrical Connection Position	Side	Side	
Cable Termination			
Mounting	Adhesive	Adhesive	
Cable Length	10 ft	3 m	
Cable Type	030 Coaxial	030 Coaxial	

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

- [1] Typical.
 [2] Measured perpendicular to sensing axis.
 [3] Calibrated on steel bar.
 [4] Based on cable drive of 100 ft at 30 pF/ft 20 mA excitation.
 [5] Zero-based, least-squares, straight line method.
 [6] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:

- Model 039A07 Removal Tool (1)
 Model 080A90 Quick Bonding Gel (1)
 Model ACS-15 Piezoelectric Strain Sensor Calibration Certificate. (1)

Entered: JET	Engineer: AEX	Sales: WX	Approved: MB	Spec Number:
Date: 10/5/05	Date: 10-5-05	Date: 10/5/05	Date: 10/5/05	9599



[6]

All specifications are at room temperature unless otherwise specified.
 In the interest of constant product improvement, we reserve the right to change specifications without notice.

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