Model Numbe
339A31
Performance Sensitivity(± 10 %

TRIAXIAL ICP® ACCELEROMETER

Revision: G

ECN #: 42197

Sensitivity(± 10 %)	Performance	ENGLISH	SI	
Measurement Range	Sensitivity(± 10 %)	10 mV/g		
Frequency Range(± 10 %)	Measurement Range	± 500 g pk		
Resonant Frequency ≥ 25 kHz ≥ 25 kHz Elter Filter Type(single pole) Low Pass Low Pass Low Pass Low Pass Electrical Filter Roll-off 6 dB/octave 6 dB/octave 5 dB/octave 5 dB/octave 13 kHz > 13 kHz > 13 kHz Single Pole Single Pole Pole Pole Pole Pole Pole Pole Po	Frequency Range(± 5 %)	2 to 6000 Hz	2 to 6000 Hz	
Resonant Frequency ≥ 25 kHz ≥ 25 kHz ≥ 25 kHz		1 to 8000 Hz	1 to 8000 Hz	
Filter Type(single pole)	Resonant Frequency	≥ 25 kHz	≥ 25 kHz	
Electrical Filter Roll-off Electrical Filter Corner Frequency Electrical Filter Corner Frequency Electrical Filter Corner Frequency Froadband Resolution(1 to 10,000 Hz) Non-Linearity Solution(1 to 10,000 Hz) Non-Linearity Solution(1 to 10,000 Hz) Non-Linearity Solution(1 to 10,000 Hz) Solution(1 to 10,000 Hz) Non-Linearity Solution(1 to 10,000 Hz) Non-Linearity Solution(2 to 5 % Solution(2 to 5 % Solution(2 to 5 % Environmental Overload Limit(Shock) Let 5000 g pk Let 49,050 m/s² pk Let 16 solution(2 to 2 to 20 mh Let 17 to 12 VDC Let 18 to 30 VDC Let 20 mA Let 16 solution(2 to 20 mA Let 16 solution(2 to 20 mA Let 17 to 12 VDC Let 18 to 30 VDC Let 18 to 40 to 16 sec Let 18 to 30 VDC Let 18 to 30 VDC Let 18 to 40 to 16 sec Let 18 to 30 VDC Let 18 to 40 to 16 sec Let 18 to 40		Low Pass	Low Pass	
Broadband Resolution(1 to 10,000 Hz) 0.008 g rms 0.078 m/s² rms Non-Linearity ≤ 0.5 % ≤ 0.5 % Transverse Sensitivity ≤ 5 % ≤ 5 % Environmental Voerload Limit(Shock) ± 5000 g pk ± 49,050 m/s² pk Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %/°F ≤ 0.020 %/°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec	Electrical Filter Roll-off	6 dB/octave	6 dB/octave	
Broadband Resolution(1 to 10,000 Hz) 0.008 g rms 0.078 m/s² rms Non-Linearity ≤ 0.5 % ≤ 0.5 % Transverse Sensitivity ≤ 5 % ≤ 5 % Environmental 5000 g pk ± 49,050 m/s² pk Overload Limit(Shock) ± 5000 g pk ± 49,050 m/s² pk Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %°F ≤ 0.020 %/°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec	Electrical Filter Corner Frequency	>13 kHz	>13 kHz	
Non-Linearity ≤ 0.5 % ≤ 0.5 % Transverse Sensitivity ≤ 5 % ≤ 5 % Environmental Voerload Limit(Shock) ± 5000 g pk ± 49,050 m/s² pk Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ 0.011 %/°F ≤ 0.020 %/°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA 2 to 20 mA Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC 10 to 2 voc 0.6 to 2 sec 0.9 to 2 voc 3 sec Spectral Noise(1 Hz) 1700 μg/·Hz 16,660 (μm/sec²)/·Hz 1960 (μm/sec²)/·Hz Spectral Noise(10 Hz) 200 μg/·Hz 1960 (μm/sec²)/·Hz 980 (μm/sec²)/·Hz Physical Spectral Noise(1 kHz) 980 (μm/sec²)/·Hz Physical Spear Shear Shear Shear Shear Shear Shear <		0.008 g rms	0.078 m/s ² rms	[1]
Environmental ± 5000 g pk ± 49,050 m/s² pk Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %°F ≤ 0.020 %°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec		•	≤ 0.5 %	
Overload Limit(Shock) ± 5000 g pk ± 49,050 m/s² pk Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %°F ≤ 0.020 %/°C Electrical See Graph See Graph Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) < 3 sec	Transverse Sensitivity	≤ 5 %	≤ 5 %	
Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %/°F ≤ 0.020 %/°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec				
Temperature Range(Operating) -65 to +325 °F -54 to +163 °C Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %/°F ≤ 0.020 %/°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec	Overload Limit(Shock)	± 5000 g pk	± 49,050 m/s ² pk	
Temperature Response See Graph See Graph Temperature Coefficient of Sensitivity ≤ .011 %/°F ≤ 0.020 %/°C Electrical 18 to 30 VDC 18 to 30 VDC Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec	Temperature Range(Operating)			
Temperature Coefficient of Sensitivity ≤ 0.011 %/°F ≤ 0.020 %/°C Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec				[1]
Electrical Excitation Voltage 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) <3 sec		•	·	
Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time (within 10% of bias) <3 sec				
Constant Current Excitation 2 to 20 mA 2 to 20 mA Output Impedance ≤ 200 Ohm ≤ 200 Ohm Output Bias Voltage(Room Temperature) 7 to 12 VDC 7 to 12 VDC Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time (within 10% of bias) <3 sec	Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Output Bias Voltage(Room Temperature) Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) 3 sec Spectral Noise(1 Hz) 1700 μg/√Hz Spectral Noise(10 Hz) Spectral Noise(100 Hz) Spectral Noise(100 Hz) Spectral Noise(100 Hz) Spectral Noise(1 kHz) Physical Sensing Geometry Housing Material Sealing Sealing Sealing Selectrical Connector B-36 4-Pin Electrical Connection Position Side Mounting Thread Tutanium Stud Stud Stud Stud Sensitivity Fewritting vs. Temperature Temperature Temperature To 12 VDC 7 to 12 VDC 0.6 to 2 sec 0.6 to 2 sec 43 sec 43 sec 43 sec 4900 (μm/sec²)/√Hz 1960 (μm/sec²)/√Hz 1960 (μm/sec²)/√Hz 980 (μm/sec²)/√Hz Physical Shear Titanium Titanium Titanium Titanium Titanium Sealing Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Side Side Side Mounting Mounting Thread Stud Stud	Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Bias Voltage(Room Temperature) Discharge Time Constant 0.6 to 2 sec 0.6 to 2 sec Settling Time(within 10% of bias) 3 sec Spectral Noise(1 Hz) 1700 μg/√Hz Spectral Noise(10 Hz) Spectral Noise(100 Hz) Spectral Noise(100 Hz) Spectral Noise(100 Hz) Spectral Noise(1 kHz) Physical Sensing Geometry Housing Material Sealing Sealing Sealing Selectrical Connector B-36 4-Pin Electrical Connection Position Side Mounting Thread Tutanium Stud Stud Stud Stud Sensitivity Fewritting vs. Temperature Temperature Temperature To 12 VDC 7 to 12 VDC 0.6 to 2 sec 0.6 to 2 sec 43 sec 43 sec 43 sec 4900 (μm/sec²)/√Hz 1960 (μm/sec²)/√Hz 1960 (μm/sec²)/√Hz 980 (μm/sec²)/√Hz Physical Shear Titanium Titanium Titanium Titanium Titanium Sealing Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Side Side Side Mounting Mounting Thread Stud Stud	Output Impedance	≤ 200 Ohm	≤ 200 Ohm	
Discharge Time Constant 0.6 to 2 sec Settling Time(within 10% of bias) 		7 to 12 VDC	7 to 12 VDC	
Settling Time(within 10% of bias) Settling Time(within 10% of bias) Spectral Noise(1 Hz) 1700 μ g/\Hz 16,660 (μ m/sec^2)\/\Hz Spectral Noise(10 Hz) 500 μ g/\Hz 4900 (μ m/sec^2)\/\Hz Spectral Noise(100 Hz) 200 μ g/\Hz 1960 (μ m/sec^2)\/\Hz Spectral Noise(1 kHz) 100 μ g/\Hz 980 (μ m/sec^2)\/\Hz Physical Sensing Geometry Shear Shear Housing Material Titanium Titanium Sealing Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Side Side Mounting Mounting Mounting Stud St			0.6 to 2 sec	
Spectral Noise(1 Hz) 1700 μ g/ 1 Hz 16,660 (μ m/sec 2)/ 1 Hz Spectral Noise(10 Hz) 500 μ g/ 1 Hz 4900 (μ m/sec 2)/ 1 Hz Spectral Noise(100 Hz) 200 μ g/ 1 Hz 1960 (μ m/sec 2)/ 1 Hz Spectral Noise(1 kHz) 100 μ g/ 1 Hz 980 (μ m/sec 2)/ 1 Hz Physical Sensing Geometry Shear Shear Housing Material Titanium Titanium Sealing Hermetic Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 14 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Nounting Stud Stud Stud Mounting Thread 5-40 Female	3	<3 sec	<3 sec	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1700 µg/√Hz	16.660 (µm/sec ²)/√Hz	[1]
Spectral Noise(100 Hz) 200 μg/√Hz 1960 (μm/sec²)/√Hz Spectral Noise(1 kHz) 100 μg/√Hz 980 (μm/sec²)/√Hz Physical Shear Shear Sensing Geometry Shear Shear Housing Material Titanium Titanium Sealing Hermetic Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 14 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female	Spectral Noise(10 Hz)	500 µa/√Hz		[1]
Spectral Noise(1 kHz) 100 μg/√Hz 980 (μm/sec²)/√Hz Physical Shear Shear Sensing Geometry Shear Titanium Housing Material Titanium Titanium Sealing Hermetic Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 14 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female				[1]
Physical Sensing Geometry Sensing Material Sealing Size (Height x Length x Width) Weight Electrical Connector Electrical Connection Position Mounting Mounting Thread Shear Shear Titanium Titanium Hermetic Hermetic 14 mm x 10.2 mm x 10.2 mm 14 mm x 10.2 mm 15.5 gm 14 mm x 10.2 mm 15 mm 16 mm x 10.2 mm 17 mm 18 mm x 10.2 mm 18 mm x 10.2 mm 18 mm x 10.2 mm 19 mm x 1		. 5		[1]
Sensing Geometry Shear Shear Housing Material Titanium Titanium Sealing Hermetic Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 14 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female	, ,	100 μg/ 1112	900 (μπ/σεс)/ 1112	1.1
Housing Material Titanium Titanium Sealing Hermetic Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 14 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female		Shoar	Shoar	
Sealing Hermetic Hermetic Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 14 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female				
Size (Height x Length x Width) 0.55 in x 0.4 in x 0.4 in 0.2 oz 14 mm x 10.2 mm x 10.2 mm x 10.2 mm Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female				
Weight 0.2 oz 5.5 gm Electrical Connector 8-36 4-Pin 8-36 4-Pin Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female	3			
Electrical Connector 8-36 4-Pin 8-36 4-P	`			[1]
Electrical Connection Position Side Side Mounting Stud Stud Mounting Thread 5-40 Female Typical Societivity Position vs Temporature	•		· ·	ניו
Mounting Stud Stud Mounting Thread 5-40 Female 5-40 Female				
Mounting Thread 5-40 Female 5-40 Female				
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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] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:

Model 034K10 Cable 10FT Mini 4 Pin To (3) BNC (1)

Model 080A Adhesive Mounting Base (1)

Model 080A109 Petro Wax (1)
Model 080A90 Quick Bonding Gel (1)
Model 081A27 Mounting Stud (5-40 to 5-40) (1)

Model 081A90 Mounting stud, 10-32 to 5-40 (1)

Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1) Model ACS-44T Triaxial extended amplitude response, upper 5% point to 10% point (requires

ACS-1T or equivalent). (1)

Model M081A27 Metric mounting stud, 5-40 to M3 x 0.50 long (1)

Entered: AP	Engineer: JJB	Sales: WDC	Approved: JJB	Spec Number:
Date: 11/8/2013	Date: 11/8/2013	Date: 11/8/2013	Date: 11/8/2013	41207



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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.

Temperature (°F)

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