

Model Number

356A25

# TRIAXIAL ICP® ACCELEROMETER

Revision: D

ECN #: 25024

## Performance

	ENGLISH	SI	
Sensitivity (± 10 %)	25 mV/g	2.6 mV/(m/s <sup>2</sup> )	
Measurement Range	± 200 g pk	± 1960 m/s <sup>2</sup> pk	
Frequency Range (± 5 %)	1 to 5000 Hz	1 to 5000 Hz	
Frequency Range (± 10 %)	0.5 to 6500 Hz	0.5 to 6500 Hz	
Resonant Frequency	≥ 25 kHz	≥ 25 kHz	[2]
Broadband Resolution (1 to 10,000 Hz)	0.0002 g rms	0.002 m/s <sup>2</sup> rms	[4]
Non-Linearity	≤ 1 %	≤ 1 %	
Transverse Sensitivity	≤ 5 %	≤ 5 %	

## Environmental

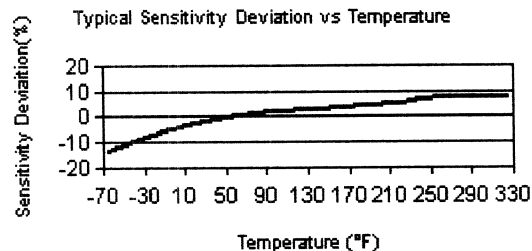
	ENGLISH	SI	
Overload Limit (Shock)	± 7000 g pk	± 68,600 m/s <sup>2</sup> pk	
Temperature Range (Operating)	-65 to +250 °F	-54 to +121 °C	[3]
Temperature Response	See Graph	See Graph	
Base Strain Sensitivity	0.001 g/με	0.01 (m/s <sup>2</sup> )/με	[2]

## Electrical

	ENGLISH	SI	
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 12 VDC	8 to 12 VDC	
Discharge Time Constant	0.5 to 2.0 sec	0.5 to 2.0 sec	
Settling Time (within 10% of bias)	<5 sec	<5 sec	
Spectral Noise (1 Hz)	70 μg/√Hz	686 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise (10 Hz)	15 μg/√Hz	147 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise (100 Hz)	5 μg/√Hz	49 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise (1 kHz)	3 μg/√Hz	29.4 (μm/s <sup>2</sup> )/√Hz	[2]
Spectral Noise (10 kHz)	2 μg/√Hz	19.6 (μm/s <sup>2</sup> )/√Hz	[2]

## Physical

	ENGLISH	SI	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Height x Length x Width)	0.55 in x 0.80 in x 0.55 in	14.0 mm x 20.3 mm x 14.0 mm	
Weight	0.37 oz	10.5 gm	[2]
Electrical Connector	1/4-28 4-Pin	1/4-28 4-Pin	
Electrical Connection Position	Side	Side	
Mounting Thread	10-32 Female	10-32 Female	
Mounting Torque	10 to 20	113 to 225	



[5]

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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## 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.

Option	Description	Standard Model	Optional Model	Notes
HT	High temperature, extends normal operation temperatures			[3]
	Excitation Voltage	23 to 30 VDC	23 to 30 VDC	
	Output Bias Voltage	7 to 16 VDC	7 to 16 VDC	[1]
	Frequency Range (± 5 %)	2 to 5000 Hz	2 to 5000 kHz	
	Frequency Range (± 10 %)	1.4 to 6500 Hz	1.4 to 6500 kHz	
	Broadband Resolution (1 to 10,000 Hz)	0.0003 g rms	0.003 μm/s <sup>2</sup> rms	[2]
	Temperature Range (Operating)	-65 to +325 °F	-54 to +163 °C	
	Discharge Time Constant	0.1 to 0.6 sec	0.1 to 0.6 sec	
	Spectral Noise (1 Hz)	190 μg/√Hz	1864 (μm/s <sup>2</sup> )/√Hz	[2]
	Spectral Noise (10 Hz)	35 μg/√Hz	345 (μm/s <sup>2</sup> )/√Hz	[2]
	Spectral Noise (100 Hz)	20 μg/√Hz	196 (μm/s <sup>2</sup> )/√Hz	[2]
	Spectral Noise (1 kHz)	3 μg/√Hz	29.4 (μm/s <sup>2</sup> )/√Hz	[2]

T - TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4

TLA - TEDS LMS International - Free Format

TLB - TEDS LMS International - Automotive Format

TLC - TEDS LMS International - Aeronautical Format

Option	Description	Standard Model	Optional Model
	Excitation Voltage	20 to 30 VDC	20 to 30 VDC
	Temperature Range	-10 to +200 °F	-23 to +93 °C
	Output Bias Voltage	8.5 to 13 VDC	8.5 to 13 VDC

TLD - TEDS Capable of Digital Memory and Communication Compliant with IEEE 1451.4

Option	Description	Standard Model	Optional Model
	Excitation Voltage	20 to 30 VDC	20 to 30 VDC
	Output Bias Voltage	8.5 to 13 VDC	8.5 to 13 VDC
	Temperature Range	-10 to +200 °F	-23 to +93 °C

## NOTES:

- [1] TEDS option adds 1.0 VDC to bias voltage.
- [2] Typical.
- [3] Valid from +250 to +325 °F (+121 to +163 °C), with HT option only.
- [4] Zero-based, least-squares, straight line method.
- [5] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

- Model 080A109 Petro Wax (1)
- Model 080A12 Adhesive Mounting Base (1)
- Model 081B05 Mounting Stud (10-32 to 10-32) (1)
- Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)
- Model M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)

Entered: BLS	Engineer: [Signature]	Sales: WDC	Approved: [Signature]	Spec Number:
Date: 11-10-06	Date: 11/10/06	Date: 11/10/06	Date: 11/10/06	12854

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