

Model Number

607M83

INDUSTRIAL 3-WIRE ACCELEROMETER

Revision: A

ECN #: 32451

Performance

	ENGLISH	SI	
Sensitivity(± 20 %)	100 mV/g	10.2 mV/(m/s ²)	[2]
Measurement Range	± 45 g	± 441 m/s ²	[3]
Frequency Range(± 3 dB)	90 to 600,000 cpm	1.5 to 10,000 Hz	
Resonant Frequency	1500 kcpm	25 kHz	[1]
Broadband Resolution(1 to 10,000 Hz)	2 mg	19.6 mm/s ²	[1]
Non-Linearity	± 1 %	± 1 %	[4]
Transverse Sensitivity	≤ 7 %	≤ 7 %	

Environmental

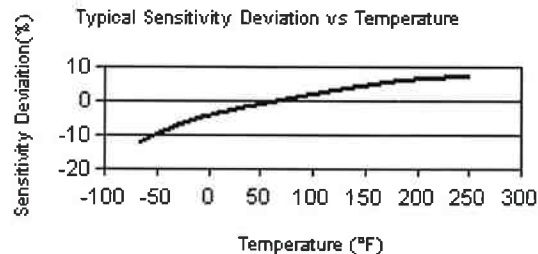
Overload Limit(Shock)	5000 g pk	49,050 m/s ² pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[1]
Enclosure Rating	IP68	IP68	

Electrical

Settling Time(within 1% of bias)	≤ 5.0 sec	≤ 5.0 sec	
Discharge Time Constant	≥ 0.1 sec	≥ 0.1 sec	
Excitation Voltage	3 to 12 VDC	3 to 12 VDC	
Output Impedance	<100 ohm	<100 ohm	
Current Draw	0.5 mA	0.5 mA	
Output Bias Voltage	1.5 to 6 VDC	1.5 to 6 VDC	
Spectral Noise(10 Hz)	18 µg/√Hz	176.6 (µm/sec ²)/√Hz	[1]
(100 Hz)	4 µg/√Hz	39.2 (µm/sec ²)/√Hz	[1]
(1 kHz)	2 µg/√Hz	19.6 (µm/sec ²)/√Hz	[1]
Electrical Isolation(Case)	>10 ⁸ ohm	>10 ⁸ ohm	

Physical

Size (Hex x Height)	9/16 in x 0.97 in	14 mm x 24.6 mm	
Weight(without cable)	1.1 oz	31 gm	[5]
Mounting	Stud	Stud	
Mounting Thread	1/4-28 Male	No Metric Equivalent	[6]
Mounting Torque(stud)	7 to 8 ft-lb	9.5 to 10.8 N-m	[7][8]
(hex nut)	2 to 5 ft-lb	2.7 to 6.8 N-m	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	Molded Integral Cable	Molded Integral Cable	
Electrical Connection Position	Side	Side	
Cable Termination	Blunt cut	Blunt cut	
Electrical Connections(Red)	Pos (+) Power	Pos (+) Power	
(Black)	Ground	Ground	
(White)	Acceleration Output	Acceleration Output	
Cable Length	10 ft	3.0 m	
Cable Type	Polyurethane	Polyurethane	



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.

M - Metric Mount

Supplied Accessory : Model M080A159 Mounting stud, 1/2-20 to M6 x 1 (1) replaces Model 080A156

NOTES:

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s².
- [3] Full range requires adequate bias voltage.
- [4] Zero-based, least-squares, straight line method.
- [5] Measured with mounting stud.
- [6] 1/4-28 has no equivalent in S.I. units.
- [7] 1/8" hex Allen key required for English version, 4 mm hex Allen key required for Metric version.
- [8] Stud torque must exceed sensor hex nut torque to ensure proper dismantling.

SUPPLIED ACCESSORIES:

Model 080A156 Mounting Base (1)
Model ICS-2 NIST-traceable single-axis single-point amplitude response calibration at 6000 cpm (100 Hz) (1)

Entered: JH	Engineer: JAB	Sales: EBY	Approved: EB	Spec Number:
Date: 3-5-10	Date: 2-18-10	Date: 2-18-10	Date: 2-24-10	37457

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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