

MA253-1A Series

Low Cost, High Voltage Isolated, Molded Accelerometer, Top Exit 2 Pin Connector, 500 mV/g, ±20%



VIBRATION ANALYSIS HARDWARE



Product Features

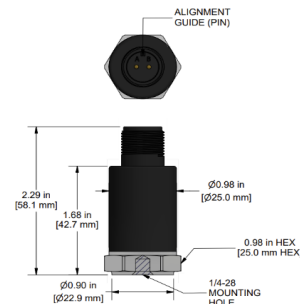
Low Cost, Polycarbonate Over-Molded Sensor
316L Stainless Steel Base

- ▶ 10 kV DC (7 kV AC) Electrical Isolation between the base and internal electronics
- ▶ To avoid stripping connector threads, all molded sensors must pair with plastic threaded connectors (CKP-A2A, B2A, B2N, B2R, A2S)

MA253-1A

2 Pin Connector

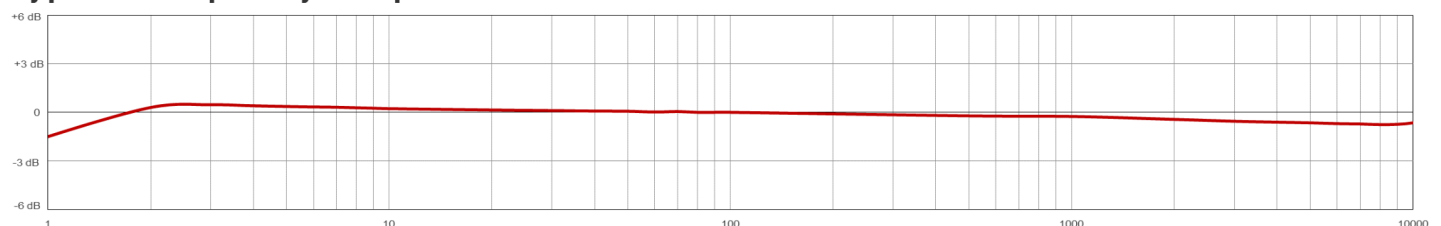
Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	MA253-1A	M/MA253-1A	Environmental		
Sensitivity (±20%)	500 mV/g		Temperature Range	-58 to 250°F	-50 to 121°C
Frequency Response (±3dB)	6-600,000 CPM	0.1-10000 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	36-180,000 CPM	0.6-3000 Hz	Electromagnetic Sensitivity	CE PENDING	
Dynamic Range	± 10 g, peak		Sealing	Molded, Fully Encapsulated	
Electrical			SIL Rating	SIL 2	
Settling Time	<2 Seconds		Physical		
Voltage Source (IEPE)	18-30 VDC		Sensing Element	PZT Ceramic	
Constant Current Excitation	2-10 mA		Sensing Structure	Shear Mode	
Spectral Noise @ 10 Hz	1.7 µg/√Hz		Weight	3.35 oz	95 grams
Spectral Noise @ 100 Hz	0.2 µg/√Hz		Case Material	Polycarbonate	
Spectral Noise @ 1000 Hz	0.12 µg/√Hz		Mounting	1/4-28	
Output Impedance	<100 ohm		Connector (Non-Integral)	2 Pin MIL-C-5015 Molded Equivalent	
Bias Output Voltage	10-14 VDC		Resonant Frequency	IN TESTING	IN TESTING
Case Isolation	>10 ⁸ ohm		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
			Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
			Calibration Certificate		CA10

Typical Frequency Response



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