

# SA6210 Low-Profile Accelerometer

## Datasheet

The Metrix SA6210 Low-Profile Accelerometer uses a side-exit cable connection that allows it to be used in physically constrained locations where a top-exit cable design will not fit. The SA6210 offers performance characteristics similar to our SA6200A, but with a slightly wider frequency response and a higher mounted resonant frequency. The table below summarizes the primary characteristics for each of our standard-temperature accelerometer offerings:



	SA6200A	SA6200	SA6210	SA6250
Freq Response (+/- 3dB)	0.5 Hz - 10 kHz	0.5 Hz - 12 kHz	10 Hz - 10 kHz	0.8 Hz - 15kHz
Mounted Resonance	13 kHz	18 kHz	25 kHz	40 kHz
Sensing Element	Quartz	Quartz	Ceramic	Ceramic
Cable Connector	Top	Top	Side	Top

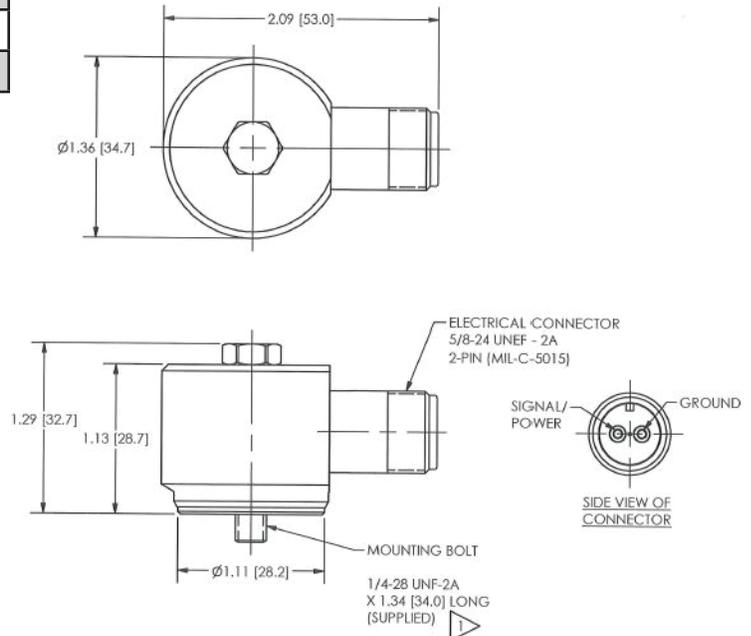
A built-in amplifier provides a 100mV/g low-impedance, constant-current output that is compatible with vibration monitoring systems, electronic switches, and 4-20mA signal conditioners.

The sensor consists of a temperature-stabilized piezoelectric core and an amplifier, packaged together in a stainless steel case that is electrically isolated from the sensing circuit. It is mounted using a through-bolt rather than a base-mounted stud, and is available in both ¼-28 and M6 x 1.0 thread sizes. The through-bolt design allows the cable connector to be rotated to any orientation.

# SPECIFICATIONS

Dynamics	
Sensitivity (±5%)	100 mV/g (10.2 mV/m/s <sup>2</sup> )
Frequency Response	<ul style="list-style-type: none"> <li>• 0.5 to 6500 Hz (± 5%)</li> <li>• 0.37 to 7500 Hz (±10%)</li> <li>• 0.2 to 10,500 Hz (±3dB)</li> </ul>
Resonant Frequency	25 kHz
Cross Axis Sensitivity	≤5%
Measurement Range	≤50 g
Broadband Resolution	50 µg (491 µm/sec <sup>2</sup> )
Mechanical	
Case Material	Stainless Steel
Hermetic Seal	Welded
Electrical Connector	2-Pin MIL-C-5015
Mounting Thread	1/4-28 Male
Sensing Element	Ceramic
Weight	145 gm (5.1 oz)
Electrical	
Excitation Current	2 to 20 mA
Excitation Voltage	18 to 28 VDC
Output Bias	8 to 12 VDC
Settling Time	≤8 sec
Transient Protection	RFI & ESD
Environmental	
Shock Limit	5,000 pk
Temperature Range	-65 to +250°F (-54 to +121°C)
Enclosure Rating	IP68
Mounting Torque	2 to 5 ft-lb (2.7 to 6.8 N-m)

## WEIGHT & DIMENSIONS



**Aprox. Weight:** 145 gm (5.1 oz)

**Units:** mm [inches]