

SA6250 HIGH-FREQUENCY ACCELEROMETER

Datasheet

OVERVIEW

Capable of sensing a wide range of vibration frequencies, this accelerometer is ideal for use on a variety of machines. A built-in amplifier provides a high-level, low-impedance output ideal for connection to a Metrix 4-20 mA output signal conditioner. It consists of a temperature stabilized piezo-electric sensor and an amplifier packaged together in a stainless steel case, from which the sensing circuit is electrically isolated. A choice of mounting styles is available.

FEATURES

- High Frequency Response
- Hermetic Stainless Steel Case
- Intrinsically Safe Versions Available

APPLICATIONS

- Motors
- Gear Boxes
- Paper Machines
- Process Pumps
- Fans
- Turbocharger Engine Vibration
- Cooling Tower Fans



SPECIFICATIONS

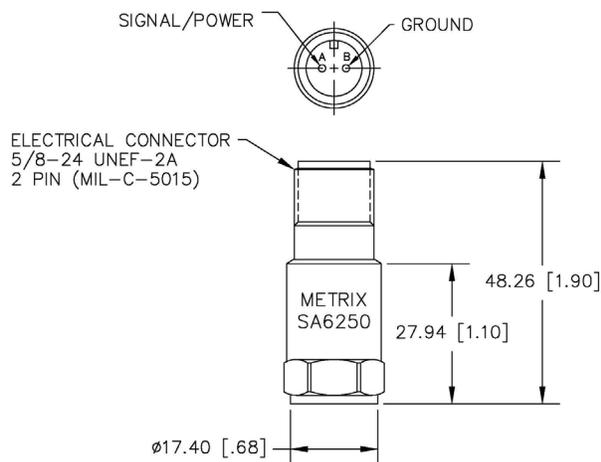
Accuracy (Repeatability)	2%
Sensitivity	(±5%): 100 mV/g (10.2 mV/m/s ²)
Frequency Response	<ul style="list-style-type: none">• 1.7 Hz to 10 KHz (±10%)• 0.8 Hz to 15 KHz (±3dB)
Resonant Frequency	40 kHz
Cross Axis Sensitivity	<5%
Measurement Range	±50 g
Resolution	0.002 g
Case Isolation	10 ⁸ Ω min
Excitation Current	2 to 20 mA
Excitation Voltage	18 to 28 V _{DC}
Full Scale Output Voltage	±5 V
Output Bias	8 to 12 V _{DC}
Settling Time	2 seconds max.
Transient Protection	RFI & ESD
Case Material	303 SS
Connector Type	2-pin Hermetic Plug
Hermetic Seal	Welded
Mounting Stud	1/4-28 UNF and M6 X 1.0
Sensing Element	Ceramic
Sensing Structure	Shear
Weight	91 gm (3.1 oz)
Shock Limit	5,000 g
Temperature Range	-54°C to +121°C
Electromagnetic Compatibility	CE Certified
Hazardous Area Certification	CSA, ATEX & LCIE

ORDERING INFORMATION

SA6250 - A B C	
□ 5 1	
A	Hazardous Area Rating
0	None
5	CSA US/CA Class I Div 2, Grps A-D, T4 (non incindive) CSA US/CA Class I Div 1, Grps A-D, T4 (I.S. w/barrier) ATEX/IECEX Ex nA IIC T4 Gc (non incindive) ATEX/IECEX Ex ia IIC T4 Ga (I.S. w/barrier)
B	Mounting Stud
5	1/4 x 28 UNF & M6 x 1.0
C	Connector Type
1	2-pin Hermetic Plug

8978 - A A A - B B B B MATING CONNECTOR / CABLE ASSEMBLY				
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A				Accelerometer Conector/Cable/Termination Code
1	1	1		Two (2) pin socket connector with integral, molded splash-proof boot with 0.025" diameter polyurethane jacketed cable with twisted shielded pair wires
2	0	0		Two (2) pin socket connector with cable strain relief, no cable
2	1	1		Two (2) pin socket connector with cable strain relief with 0.25" diameter polyurethane jacketed cable with twisted shielded pair wires
B				Cable Length (in 0.10 m increments)
0	0	3	0	3.0 m (9.8 ft.)
0	0	5	0	5.0 m (16.3 ft.)

WEIGHT AND DIMENSIONS



ACCESSORIES

7295-002 Accelerometer EP Housing

Physical protection and access to 1/4"-28 mount accelerometers. Rain tight & explosion-proof for CSA Class 1, Grps A-D, Div.1. 1/4" NPT stud for mounting to machine case. 1" NPT top conduit union. Zinc Plated Steel housing

7084-002 Flange Mount Adaptor

For surface mounting of the 7295 housing. 1/4" NPT center hole. 3 equally spaced 6.6 (.26) dia. mount holes on 38 (1.50) dia. circle. Stainless Steel housing

99506-020 Magnetic Mount Adaptor

Strong rare earth magnet provides up to 16 kg [35 lbs] pull force for temporary mounting of 1/4"-28 tapped accelerometers. Housing has 1/4"-28 center hole & includes sensor mounting stud. Stainless Steel housing

99506-021 Magnetic Mount Adaptor

Same as 99506-020 except metric version. Housing has M6X1 center hole and comes with matching sensor mounting stud. Stainless Steel housing

9061-XXXX Bulk Cable

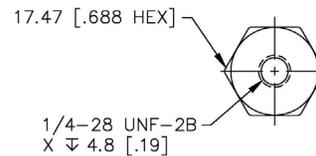
.250" dia. bulk cable with twisted, shielded pair wires. For customer attachment to mating connector P/N 8978-200-0000. Specify -XXXX in 0.1 m increments (e.g. 9061-0250=25.0 m). Polyurethane Jacketed

6400 Sensor Switch Box

Switch selectable BNC with up to 12 inputs for connection to a portable data collector/FFT analyzer. NEMA 4X (IP 65) enclosure. Non-metallic Composite housing

9338-101 Spot Facing Kit

Spot facing kit consist of a 1" HS air-craft counter bore with 3/16" guide pin, two each, along with 3/16" drill bits, two each, #3 drill bits, two each, 1/4-28 tapered taps and 1/4-28 bottom taps, two each



Weight: 91 gm [3.1 oz]

Dimensions in mm [inches]