

SA6350 HIGH TEMPERATURE ACCELEROMETER

Datasheet

OVERVIEW

The SA6350 accelerometer is ideally suited for vibration monitoring of gas turbines and other high temperature machines. The piezoelectric accelerometer is integrally connected to a charge amplifier. When used with the Metrix 5535/45 transmitter for accelerometers, a 4-20 mA signal proportional to acceleration or velocity is available. The accelerometer is electrically isolated from the stainless steel case and cable.



FEATURES

- Piezoelectric accelerometer
- Case isolated

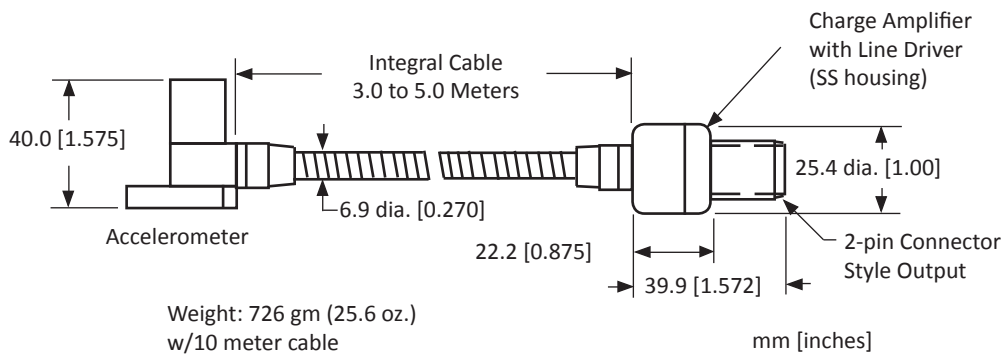
APPLICATIONS

- Gas turbines
 - Aero and marine derivative
 - Industrial frames
- High temperature furnace fans
- Hot oil pumps

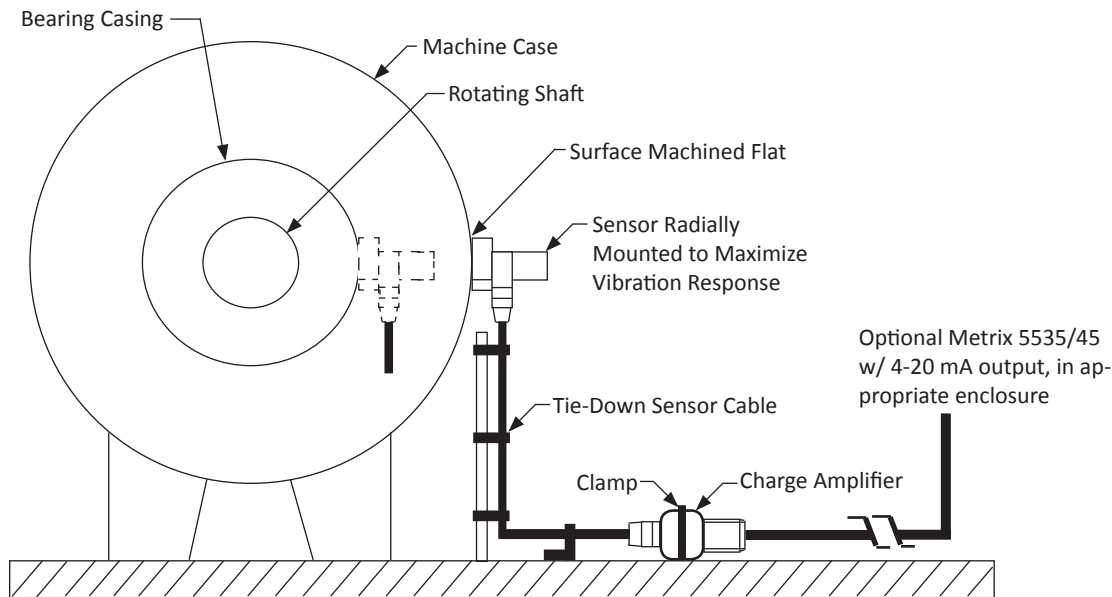
SPECIFICATIONS

Sensor	Piezoelectric accelerometer with remote charge amplifier / line driver
Frequency Response	±0.5 db from 10 Hz to 3,000 Hz ±3.0 db from 5.0 Hz to 10,000 Hz
Case Material	Stainless steel
Sensitivity	100 mV/g (10.2 mV/m/s ²) +/- 2% @ 25°C, 100 Hz
Cable	Low noise cable
Charge Amplifier Case	Stainless steel
Maximum Vibration Input	50 g's, peak
Output Impedance	1000 Ω
Field Wiring	See Ordering Option "C"
Shock Limit	5,000 g peak
Temperature Range	Accelerometer: -40°C to +325°C Cable: -40°C to +260°C Charge Amplifier: -40°C to +120°C
Sensitivity vs. Temp.	<.05% / °C
Cross Axis Response	Less than 5%
Power	20 to 30 Vdc, 2 to 6 mA. Not polarity sensitive
Mounted Resonance Frequency	25 kHz
Sealing	Accelerometer: hermetic
Isolation	500 Vrms, circuit to case
Agency Approvals	CSA and NRTL/C certified for Class I, Div. 1(Grps A-D), ATEX Ex ia IIC T1 Ga Ta: -40°C to 325°C
Electromagnetic Compatibility	CE Mark

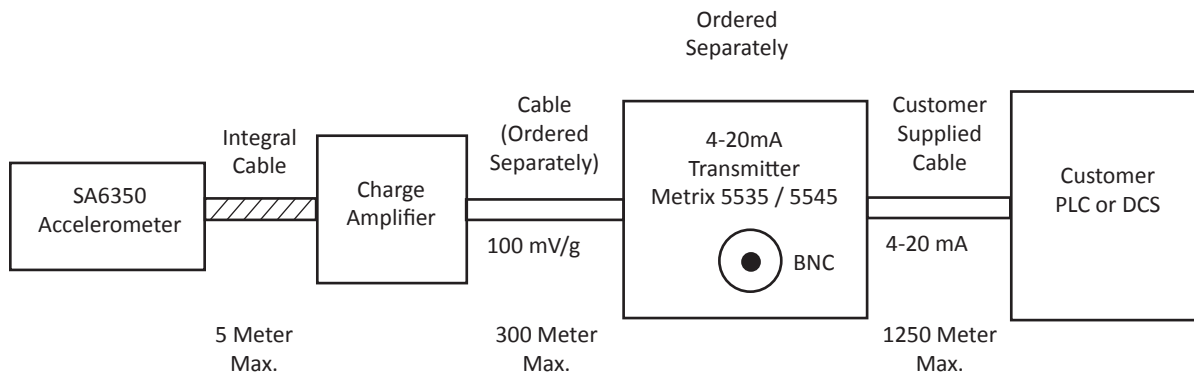
WEIGHTS AND DIMENSIONS



TYPICAL MOUNTING



4-20mA OUTPUT WIRING DIAGRAM



ORDERING INFORMATION

SA6350 HIGH TEMPERATURE ACCELEROMETER				
SA6350- A - B B B - C - D D D - E				
□ - □□□□ - □ - □□□□ - □				
A	Base			
3	3-hole pattern			
4	4-hole pattern (matches Metrix 5528)			
B	Integral Cable Length			
0 3 0	3.0 meter (9.8 ft) (minimum)			
0 5 0	5.0 meter (16.3 ft)			
C	Charge Amplifier Connection			
4	120°C charge amplifier, shielded cable			
6	120°C charge amplifier, MS 2-pin connector			
D	Shielded Cable Length			
0 0 0	For MS 2-pin connector			
0 1 0	1.0 meter (3.2 ft) minimum			
0 5 0	5.0 meter (16.3 ft)			
E	Hazardous Area Certification			
0	NONE			
1	CSA and NRTL/C certified for Class I, Div. 1(Grps A-D), ATEX Ex ia IIC T1 Ga Ta: -40°C to 325°C			

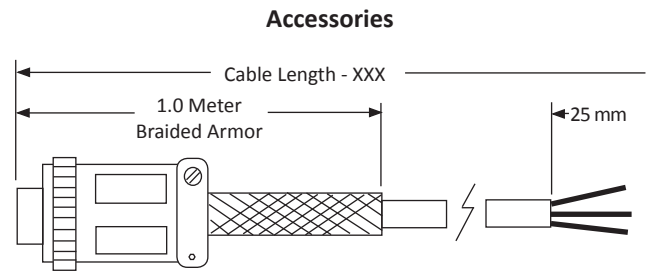
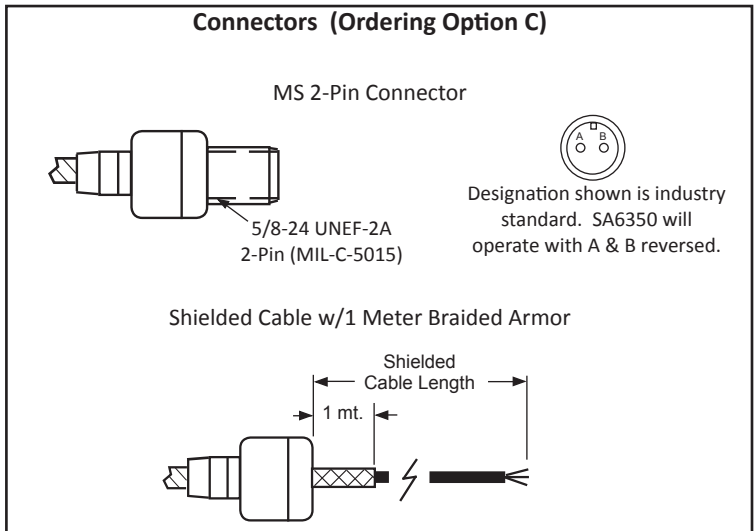
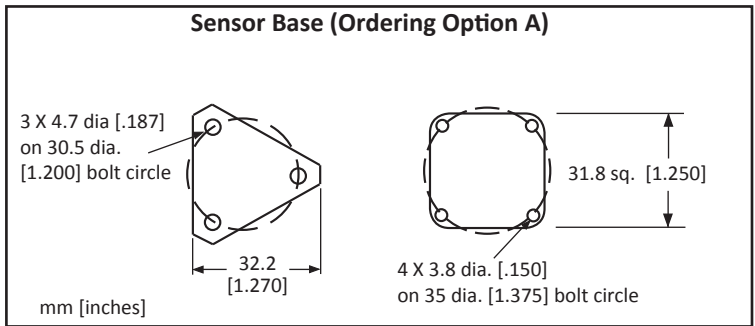
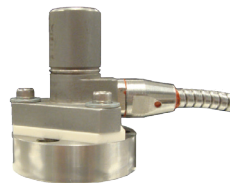
ACCESSORIES (Mating Connector/Cable Type)				
9193 - A - B B B B				
□ - □□□□				
A	Type of Cable			
1	TPE jacket, -60°C to 125°C / 300 volt			
2	FEP Teflon jacket, -80°C to 150°C / 300 volt			
B	Cable Length			
0 0 1 0	1.0 meter (3.28 ft) minimum			
0 0 2 0	2.0 meter (6.56 ft)			
0 0 3 0	3.0 meter (9.8 ft)			
0 1 0 0	10 meter (32.8 ft)			

Isolation Option 100283*
3-hole triangle base pattern

Isolation Option 100534*
4-hole triangle base pattern

Note:

* Isolation options 100283 and 100534 provide electronic isolation from the monitored machine while coupling mechanical vibration to the SA6350 accelerometer. This kit consists of a base plate, a ceramic isolator plate and mounting hardware. Use these kits in applications where electrical noise from the monitored machine could be coupled directly to the accelerometer.



Line driver / charge amplifier clamps



#93825-003
Zinc-Plated Steel



#93825-004
Rubber-Cushioned Steel



#93825-002
Zinc-Plated Steel
One included with sensor