

## 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 5580 Smart Signal Conditioner or SW5580 Smart Vibration Switch 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

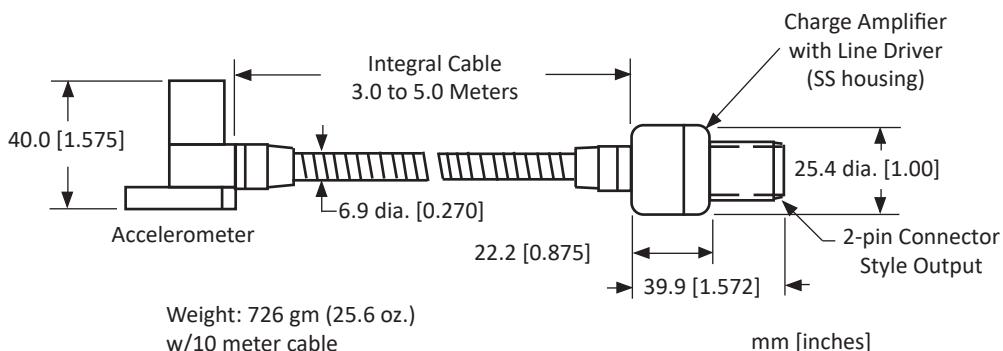
- Gas turbines
  - Aero and marine derivative
  - Industrial frames
- High temperature furnace fans
- Hot oil pumps



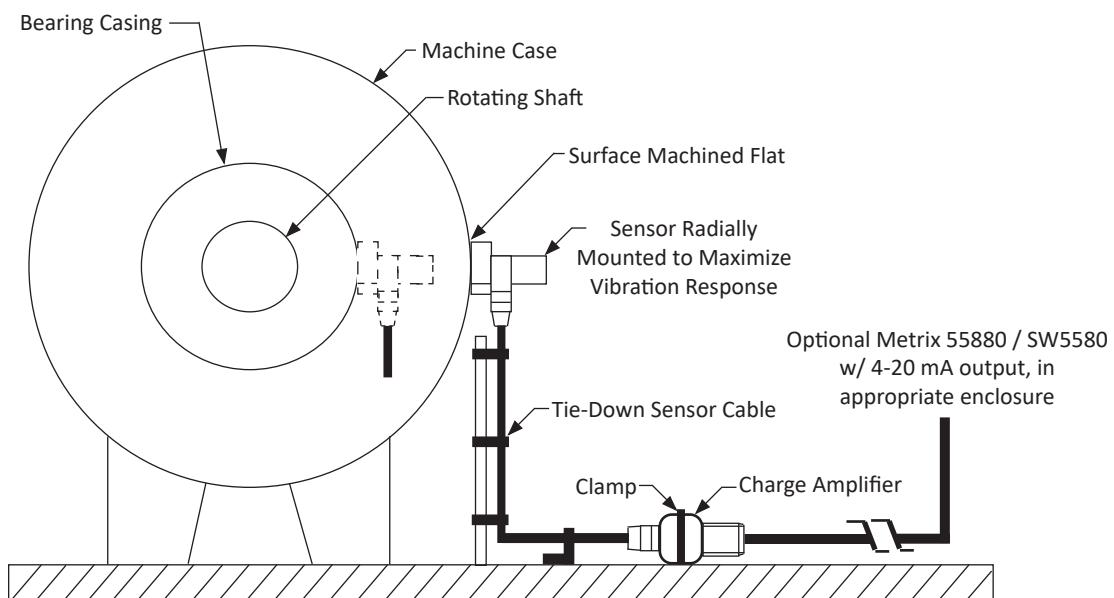
## SPECIFICATIONS

<b>Sensor</b>	Piezoelectric accelerometer with remote charge amplifier / line driver
<b>Frequency Response</b>	±3.0 db from 5.0 Hz to 10,000 Hz
<b>Case Material</b>	Stainless steel
<b>Sensitivity</b>	100 mV/g (10.2 mV/m/s <sup>2</sup> ) @ 100 Hz, +/- 5% For 20°C to 30°C (Test Range), For -40°C to 325°C (Operating Range) see Sensitivity vs. Temp.
<b>Sensitivity vs. Temp.</b>	+/- (5% + (0.05% x °C)) from 25°C
<b>Charge Amplifier Case</b>	Stainless steel
<b>Maximum Vibration Input</b>	50 g's, peak
<b>Output Impedance</b>	1000 Ω
<b>Field Wiring</b>	See Ordering Option "C"
<b>Shock Limit</b>	5,000 g peak
<b>Temperature Range</b>	Accelerometer: -40°C to +325°C Cable: -40°C to +260°C Charge Amplifier: -40°C to +120°C
<b>Cable</b>	Low noise cable
<b>Cross Axis Response</b>	Less than 5%
<b>Power</b>	20 to 30 Vdc, 2 to 6 mA Not polarity sensitive
<b>Mounted Resonance Frequency</b>	25 kHz
<b>Sealing</b>	Accelerometer: hermetic
<b>Isolation</b>	500 Vrms, circuit to case
<b>Agency Approvals</b>	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
<b>Electromagnetic Compatibility</b>	CE Mark

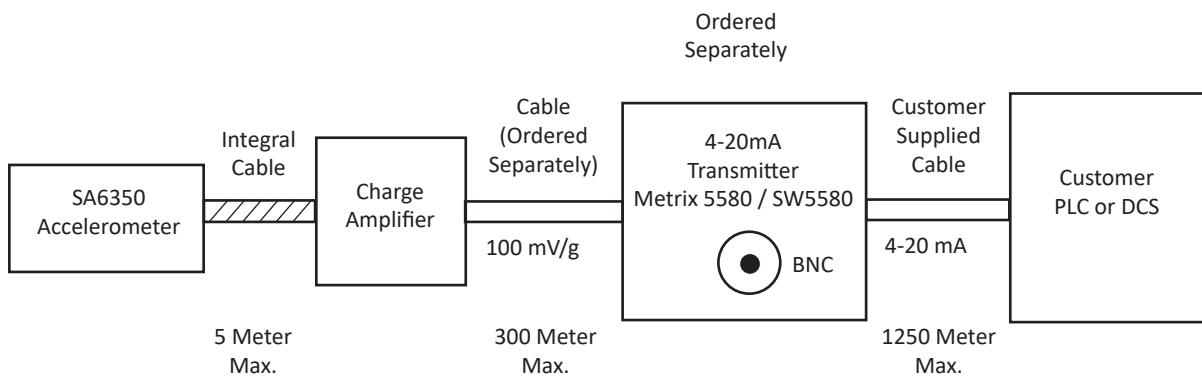
## WEIGHTS AND DIMENSIONS



## 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

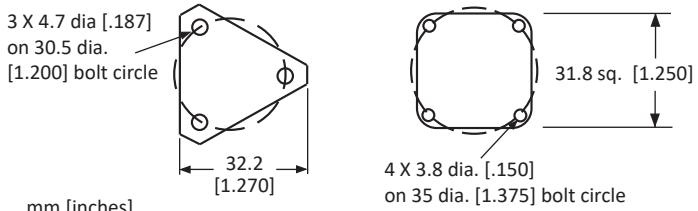
#### Note:

\* 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.

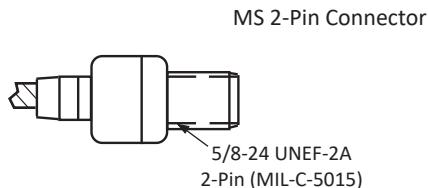
**Note:** Metrix is continuously improving our products. Please refer to our website to download the latest version of this document.



### Sensor Base (Ordering Option A)

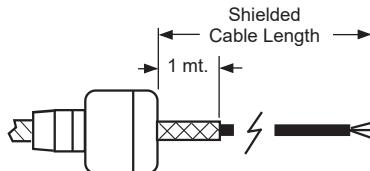


### Connectors (Ordering Option C)

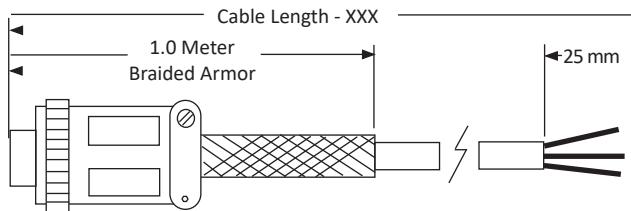


Designation shown is industry standard. SA6350 will operate with A & B reversed.

### Shielded Cable w/1 Meter Braided Armor



### Accessories



### Line driver / charge amplifier clamps



#93825-003  
Zinc-Plated Steel



#93825-004  
Rubber-Cushioned Steel



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