The SA6200A can sense a wide range of vibration frequencies, and is ideal for use on a variety of machines. A built-in amplifier provides a high level, low impedance output for connection to a signal conditioner for 4-20 mA output or to a vibration monitor. The SA6200A consists of a temperature stabilized piezo-electric sensor and amplifier, packaged in a stainless steel case to operate continually in a wet, corrosive environment of up to 120°C (248°F). The sensing circuit is electrically isolated to 500Vrms.

Features
• Wide Frequency Response
• Hermetic S.S. Case
• Polarity Indifferent

Applications
• Motors
• Gear Boxes
• Paper Machines
• Process Pumps
• Large Fans
• Rotor Blade Pass Sensing
• Turbocharger Engine Vibration
• Cooling Tower Fans

IPT™ (Independent Polarity Terminal) is a registered trademark of Metrix Instrument Co.
ATEX/IECEx Special Conditions for Safe Use:
To ensure temperature classification and safety, the power supply should adhere to the following:
\[ U_i \leq 30V, \quad I_i \leq 100mA, \quad P_i \leq 0.75W, \quad C_i \leq 12\text{nF}, \quad L_i = 0 \]
Ambient Operating Temperature: \(-54°C \text{ to } +121°C (T3)\)

The mounting of the apparatus into an installation must be carried out in such a way that metallic body of the accelerometer is reliably connected to the system earth.
1. SAFE AREA APPARATUS IS NOT SPECIFIED
   EXCEPT THAT IT MUST NOT BE SUPPLIED FROM NOR
   CONTAIN IN NORMAL OR ABNORMAL CONDITIONS A SOURCE
   OF POTENTIAL WITH RESPECT TO EARTH IN EXCESS OF
   250 VAMS OR 250 VDC.

2. THE SAFETY BARRIER MUST CONFORM TO THE FOLLOWING:
   \[ V_{oc} \leq V_{max}, \max, W \]
   \[ I_{oc}, I_{max}, I \]
   \[ P_{o} \leq P_{i} \]

3. CIRCUIT IN HAZARDOUS AREA MUST BE CAPABLE OF
   WITHSTANDING A VOLTAGE TEST OF 500 VAMS TO EARTH OR TO THE FRAME
   OF THE APPARATUS FOR ONE MINUTE.

4. THE CAPACITANCE AND EITHER THE INDUCTANCE OR INDUCTION
   TO RESISTANCE (L/R) RATIO OF THE INTERCONNECTING CABLE MUST
   NOT EXCEED THE FOLLOWING:
   \[ C_{c} \leq C_{o} \leq C_{l} \]
   \[ L_{c} \leq L_{o} \leq L_{l} \]

5. THE HAZARDOUS AREA CABLE IS TO BE INSTALLED AS EITHER A
   SEPARATE CABLE OR A SEPARATE CIRCUIT WITHIN A "TYPE A" CABLE OR WITHIN A "TYPE B" CABLE AS DEFINED IN EN 50039
   (1980). THE PEAK VOLTAGE OF ANY CIRCUIT IN THE "TYPE B" CABLE MUST NOT EXCEED 1000V.

6. THE INSTALLATION MUST COMPLY WITH THE APPROPRIATE NATIONAL
   INSTALLATION REQUIREMENTS. (EXAMPLE: UK BS5445 PART 4 (1977).)

7. REFER TO SPECIFICATION DRAWING 9308 FOR ADDITIONAL INSTALLATION
   AND WIRING DETAILS.

WARNING: DO NOT SEPARATE WHEN ENERGIZED

Installation
ACCELEROMETER IN HAZARDOUS LOCATION

HAZARDOUS AREA ← SAFE AREA

Entity Parameters
\[ V_{max}, V_{i} = 30V \]
\[ I_{max}, I_{i} = 100mA \]
\[ P_{i} = 0.75W \]
\[ C_{i} = 12\mu F \]
\[ L_{i} = 2\mu H \]

8.21 TO +28VDC SIGNAL RETURN

SAFE AREA APPARATUS (NOTE 1)

Verifie et Certifie
conforme à l’exécution

Date: __________
Signature: __________
STUD MOUNTING THE SA6200A ACCELEROMETER

Installation Procedure
1. Center punch hole location.
2. Drill 3/16” diameter by 1/2” deep hole on punch mark.
3. Remove metal shavings.
4. Using the 3/16” hole as a guide, spot face to the depth required for a flat mounting surface.
5. Drill out the center hole using the 7/32” (#3) drill bit.
6. Tap hole with 1/4-28 UNF tapered tap.
7. Remove tap and metal shavings.
8. Continue tapping 1/4-28 UNF bottom tap.
9. Remove tap, deburr and metal shavings.
10. Apply a light oil to accelerometer stud and mating surface.
11. Install accelerometer, torque between 18 and 22 in/lbs.

Tools needed
2. 3/16” (#12) drill bit.
3. 7/32” (#3) drill bit.
4. 1” Aircraft Counterbore with 3/16” pilot.
5. 3/32” Allen Wrench.
6. Cutting fluid, Tap Magic or equal.
7. Torque wrench calibrated in inch pounds.
8. 1/4”-28 UNF taper and bottom tap.
9. 7/8” crow foot attachment.
10. Tap handle.
11. Small ball peen hammer.
12. Center punch.
13. Light Oil.

ENVIRONMENTAL INFORMATION

This electronic equipment was manufactured according to high quality standards to ensure safe and reliable operation when used as intended. Due to its nature, this equipment may contain small quantities of substances known to be hazardous to the environment or to human health if released into the environment. For this reason, Waste Electrical and Electronic Equipment (commonly known as WEEE) should never be disposed of in the public waste stream. The “Crossed-Out Waste Bin” label affixed to this product is a reminder to dispose of this product in accordance with local WEEE regulations. If you have questions about the disposal process, please contact Metrix Customer Service.