

## OVERVIEW

The SV6300 is capable of sensing a wide range of vibration frequencies, this velocity sensor is ideal for use on a variety of machines and can replace a moving coil velocity transducer with a solid-state sensor. A built-in amplifier provides a high-level, low-impedance output for connection to a signal conditioner for a 4-20 mA output or to a vibration monitor. The SV6300 consists of a temperature stabilized piezo-electric sensor and amplifier, packaged in a stainless steel case designed to operate continually in a wet, corrosive environment. The sensing circuit is electrically isolated to 500V<sub>RMS</sub>. Each unit is shipped with a 1/4-28 and M6 mounting stud.



## FEATURES AND BENEFITS

- Highly insensitive to cross axis vibration
- Mount in any axis
- No phase shift for balancing
- Solid-state velocity output

## APPLICATIONS

- Motors
- Gear Boxes
- Pumps – Single stage & multi-stage, centrifugal, reciprocating, reactor coolant and reactor recirculation pumps
- Fans
- Cooling Towers
- Engines
- Generators
- Turbines – Steam and Gas

## SPECIFICATIONS

| Dynamics                           |  |
|------------------------------------|--|
| Sensitivity (10%)                  | 100 mV/ips (3.94 mV/mm/s)                      |
| Frequency Response (+/-3 dB range) | 3 Hz - 9 KHz                                   |
| Resonant Frequency                 | 20 kHz   |
| Cross Axis Sensitivity             | <5%  |
| Mechanical                         |  |
| Case Material                      | 316 Stainless Steel                            |
| Connector Type                     | 2-pin Hermetic Plug                            |
| Hermetic Seal                      | Welded   |
| Mounting Stud                      | 1/4-28 UNF to M6 x 1.0                         |
| Electrical                         |  |
| Case Isolation                     | 10 <sup>8</sup> Ω                              |
| Excitation Current                 | 2 to 10 mA                                     |
| Excitation Voltage                 | 18 to 28 VDC, Polarity Indifferent             |
| Full Scale Output Voltage          | ±5 volts                                       |
| Output Bias                        | 8 to 14 volts                                  |
| Settling Time                      | 10 seconds max.                                |
| Protection                         | RFI & ESD                                      |
| Environmental                      |  |
| Shock Limit                        | 5,000 g  |
| Temperature Range                  | -54°C to +121°C (-65.2F° to +249.8°F)          |
| Radiation Exposure Limit           | 5 x 10 <sup>6</sup> Rads (expected 30-yr dose) |
| Hazard Rating                      | CSA, ATEX and IECEx                            |

HOW TO ORDER

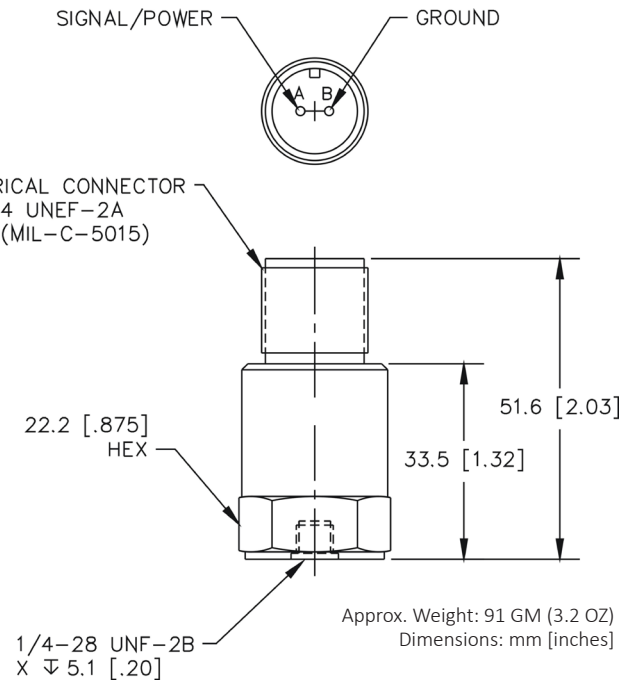
SV6300 - **A** - **B** - **C**

| A | Hazardous Area Certification   |
|---|--|
| 0 | None   |
| 5 | CSA US/CA Class I Div 2, Grps A-D, T4 (non incandive)<br>CSA US/CA Class I Div 1, Grps A-D, T4 (I.S. w/barrier)<br>ATEX/IECEX Ex nA IIC T4 Gc (non incandive)<br>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 |


WEIGHT & DIMENSIONS





ACCESSORIES

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**8978-111-AAAA, Splash proof Cable Assembly**  
Two (2) pin socket connector with integral, molded splash proof boot with 6.4 mm (0.25") diameter polyurethane jacketed cable with twisted shielded pair wires. AAA.A = Cable length in meters.
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**9334-111-AAAA-BBBB, Splash proof Cable Assembly with SS armor**  
Two (2) pin socket connector with integral, molded splash proof boot with 7.1 mm (0.28") diameter, SST armored jacket with cable, twisted shielded pair wires. AAA.A = Armor length in meters. BBB.B = Cable length in meters.
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**8978-211-AAAA, Cable Assembly**  
Two (2) pin socket connector with cable strain relief with 6.4 mm (0.25") diameter polyurethane jacketed cable with twisted shielded pair wires. Note: All 8978 connector/cable assemblies rated to 121°C (250°F) max. AAA.A = Cable length in meters.
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**9334-211-AAAA-BBBB, Cable Assembly with SS Armor**  
Two (2) pin socket connector with 7.1 mm (0.28") diameter, SST armored jacket with cable, twisted shielded pair wires. AAA.A = Armor length in meters. BBB.B = Cable length in meters.
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**8978-200-0000, Connector Assembly**  
Two (2) pin socket connector with cable strain relief, no cable.

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

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