

Low Power Accelerometer with Temperature



Specially designed, high performance, low power accelerometer with temperature output for the CSI 9420 Wireless Vibration Transmitter enables up to five years operating life with a single SmartPower module.

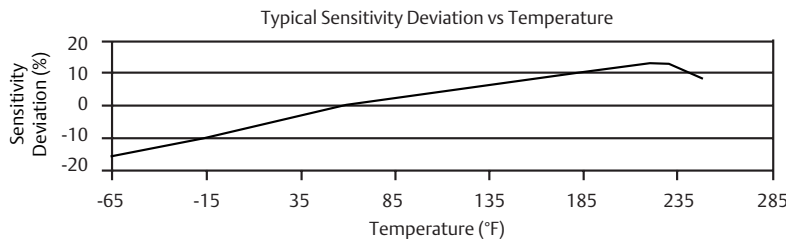
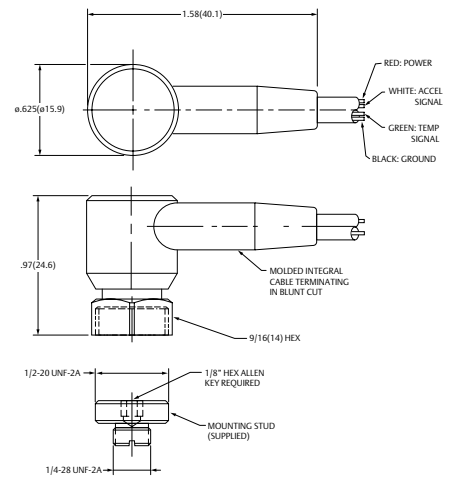


Dynamic Performance

| | |
|---------------------------------|--|
| Temperature Sensitivity | 10 mV/°C with - 50°C Offset |
| Acceleration Sensitivity (±15%) | 25 mV/g (2.5 mV/m/s ²) |
| Measurement Range | ±80 g (784 m/s ²) |
| Frequency Range (±3 dB) | 1.6 to 10,000 Hz (96 to 600,000 cpm) |
| Mounted Resonant Frequency | 25 kHz Nominal |
| Broadband Resolution | 3 mg rms (29 mm/s ²) (1 to 10 KHz) |
| Amplitude Linearity | ±1% (0 Based Straight Line Method) |
| Transverse Sensitivity | ≤7% |

Environmental / Safety

| | |
|-------------------------------|--|
| Shock Limit | 5,000g pk (49,050 m/s ²) |
| Temperature Range | -40 to 121°C (-40 to 250°F) |
| Sealing | Epoxy |
| Enclosure Rating | IP68 / Hazardous Location Approved |
| Agency Ratings (All Standard) | CE Exia IIC T4, AExia IIC T4 Exia IIC T4, 40° ≤ Ta ≤ 121°C, II 1 G Cl 1 Div 1 (Groups A, B, C, D), CLII Div 1 (Groups E, F, G), CLIII Div1 Cl 1 Div 2 (Groups A, B, C, D), ExnL IIC T4, AExnA IIC T4 Ex nL IIC T4, 40° ≤ Ta ≤ 121°C, II 3 G |



Electrical

| | |
|----------------------------------|----------------------------|
| Settling Time | ≤2 sec (Within 1% of Bias) |
| Discharge Time Constant | ≥0.1 sec |
| Excitation Voltage / Output Bias | 5 VDC / 2.3 to 2.7 VDC |
| Output Impedance | <100 ohms |
| Case Isolation | >10 ⁸ ohms |

Mechanical

| | |
|---------------------------|---|
| Weight | 23 grams (0.81 oz) Sensor Only |
| Mounting Stud / Torque | ¼-28 NPT / 2.7 to 6.8 Nm (2 to 5 lb ft) |
| Mounting Hex / Torque | 9/16" Flats / 9.5 to 10.8 Nm (7 to 8 lb ft) |
| Sensor Element / Geometry | Ceramic / Shear |
| Case Material | Stainless Steel |
| Connector Type (Side) | Molded Integral Cable/4 Wire/Tinned Leads |

Supplied Accessories

| |
|------------------------------------|
| Single Point Calibration at 100 Hz |
| Mounting Stud |

Versions

| | |
|---------------|---|
| 1. A0394DI-1 | Green Jacket, 9 meter Cable |
| 2. A0394DI-4 | Green Jacket, 30 meter Cable |
| 3. A0394DA | Armored, Green Jacket, 3 meter Cable |
| 4. A0394DA-1 | Armored, Green Jacket, 9 meter Cable |
| 5. A0394DA-4 | Armored 23 meter, Green Jacket, 30 meter Cable |
| 6. A0394DAC | Armored, Teflon Coated, 3 meter Cable |
| 7. A0394DAC-1 | Armored, Teflon Coated, 9 meter Cable |
| 8. A0394DAC-4 | Armored 23 meter, Teflon Coated, 30 meter Cable |

**Emerson Process Management
Reliability Solutions**
835 Innovation Drive
Knoxville, TN 37932
T (865) 675-2400
F (865) 218-1401

©2014, Emerson Process Management.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

All rights reserved. Machinery Health is a mark of one of the Emerson Process Management group of companies. The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are the property of their respective owners.