

Low Power Accelerometer



Specially designed, high performance, low power accelerometer for the CSI 9420 Wireless Vibration Transmitter enables up to 10 years operating life with a single SmartPower module.

Dynamic Performance

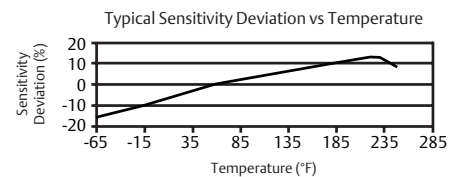
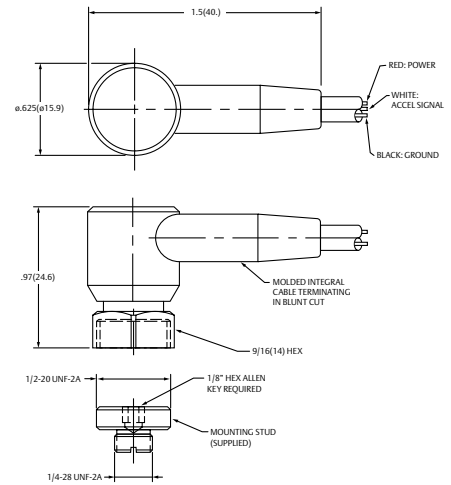
Sensitivity ($\pm 15\%$)	25 mV/g (2.5 mV/m/s ²)
Measurement Range	± 80 g (± 784 m/s ²)
Frequency Range (± 3 dB)	1.60 to 10000 Hz (96 to 600000 cpm)
Mounted Resonant Frequency	25 kHz Nominal
Broadband Resolution	3 mg rms (29 mm/s ²)(1 to 10 KHz)
Amplitude Linearity	$\pm 1\%$ (0 Based Straight Line Method)
Transverse Sensitivity	$\leq 7\%$

Environmental / Safety

Shock Limit	5000g pk (49050 m/s ²)
Temperature Range	-54 to 121°C (-65 to 250°F)
Sealing	Epoxy
Enclosure Rating	IP68 / Hermetic
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 Div 1 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	5 VDC
Output Bias	2.3 to 2.7 VDC
Output Impedance	< 150 ohms
Case Isolation	> 108 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/3 Wire/ Tinned Leads

Supplied Accessories

3 Point Calibration
Mounting Stud

Versions

1. A0394RI-1	Green Jacket, 9 meter Cable
2. A0394RI-4	Green Jacket, 30 meter Cable
3. A0394RA	Armored, Green Jacket, 3 meter Cable
4. A0394RA-1	Armored, Green Jacket, 9 meter Cable
5. A0394RA-4	Armored 23 meter, Green Jacket, 30 meter Cable
6. A0394RAC	Armored, Teflon Coated, 3 meter Cable
7. A0394RAC-1	Armored, Teflon Coated, 9 meter Cable
8. A0394RAC-4	Armored 23 meter, Teflon Coated, 30 meter Cable

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