



High Temperature, Hazardous Area Approved Charge Accelerometer

Designed for rugged environments with higher sensitivity signal requirements.

Highlights

- Sensitivity of 100 pC/g for applications requiring higher sensitivity signals.
- Shear mode element to withstand thermal transients and base bending.
- Differential output for long-term monitoring.
- Hermetically-welded stainless steel housing and integral cable (with pigtail termination connection) prevent influx of dirt or moisture.

Typical Applications

- Commissioning of Nuclear Power Plants
- Condition Monitoring of Turbines
- Machinery Protection in Extremely High Temperature Environments



IMI Sensors has developed a new High Temperature, Hazardous Area Approved Charge Accelerometer Model EX615A42 to be used in power generation vibration and other high temperature vibration monitoring applications. This new model can operate in temperatures up to 500 °F (260 °C) and can be paired with one of IMI Sensors' complementary differential charge amplifiers.

Hazardous Area Approvals:

CSA (Canada & US)

- Ex ia IIC T6...T2 Class I, Div.1, Groups A, B, C D
- Ex nA IIC T6...T2 Class I, Div.1, Groups A, B, C D

ATEX

- Ex ia IIC T6...T2 Ga
- Ex nA IIC T6...T2 Gc

IECEx

- Ex ia IIC T6...T2 Ga
- Ex nA IIC T6...T2 Gc



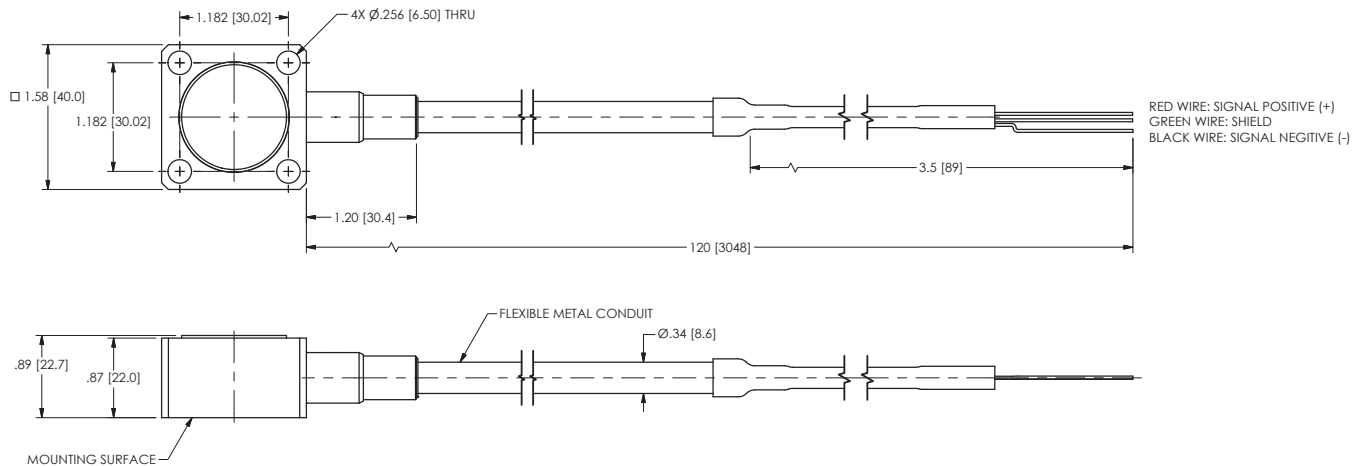
High Temperature Charge Output Accelerometer
Model EX615A42

High Temperature, Hazardous Area Approved Charge Output Accelerometer



Technical Specifications

Model Number	EX615A42	Model Number	EX615A42
Performance		Electrical	
Sensitivity	100 pC/g 10.2 pC/(m/s ²)	Capacitance (Pin to Pin)	11,100 pF
Measurement Range	±200 g	Capacitance (With Integral Cable)	35 pF/ft 115 pF/m
	±2,000 m/s ² pk	Insulation Resistance (Room Temperature)	≥10 ⁹ Ohms
Frequency Range (±5%)	Up to 5 kHz	Insulation Resistance (+500 °F [+260 °C])	≥10 ⁷ Ohms
Frequency Range (±10%)	Up to 6 kHz	Electrical Isolation (Case)	≥10 ⁸ Ohms
Resonant Frequency	> 20 kHz	Output Polarity	Differential
Non-Linearity	±1%	Physical	
Transverse Sensitivity	<5%	Sensing Element	Ceramic
Environmental		Sensing Geometry	Shear
Overload Limit (Shock)	1,000 g pk	Housing Material	Stainless Steel
	9,800 m/s ² pk	Sealing	Welded Hermetic
Base Strain Sensitivity	0.003 g/μE	Mounting	Through Four Holes
	0.03 (m/s ²)/μE	Mounting Torque	11 ft-lb 15 Nm
Temperature Range (Operation)	-65 to +500 °F	Cable Length and Type	10' armored 3-wire, low noise PTFE
	-54 to +260 °C		3m armored 3-wire, low noise PTFE
Hazardous Area Approval	CSA (C-US) NRTL - Canadian Standards Association	Cable Termination	Pigtails
	ATEX	Size	0.89 x 1.58 x 1.58 in 23 x 40 x 40 mm
	IECEX	Weight (Without Cable)	6.7 oz 190 gm
Enclosure Rating	IP68		



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ISO 9001 CERTIFIED ■ A2LA ACCREDITED to ISO 17025

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IMI Sensors designs and manufactures a full line of accelerometers, sensors, vibration switches, vibration transmitters, cables and accessories for predictive maintenance, continuous vibration monitoring, and machinery equipment protection. Products include rugged industrial ICP[®] accelerometers, 4-20 mA industrial vibration sensors and transmitters for 24/7 monitoring, electronic and mechanical vibration switches, the patented Bearing Fault Detector, high temperature accelerometers to +1300 °F (+704 °C), 2-wire Smart Vibration Switch, and the patented Reciprocating Machinery Protector. CE approved and intrinsically safe versions are available for most products.

Visit www.imi-sensors.com to locate your nearest sales office.