

DATA SHEET

# High Temperature Gas Turbine Accelerometer

Model 6240M4/5/6X



## 01 Description

The MEGGITT Model 6240MXX Accelerometer is designed to operate with long mean time between failure (MTBF) in harsh gas turbine environments. The various model numbers are shown in the table. The model numbers have unique cable lengths and connectors. The accelerometers are rated to 900°F and have an output sensitivity of 50 pC/g.

This series of accelerometers have model numbers of 6240M4X, 6240M5X and 6240M6X.

The device is hermetically sealed against environmental contamination and is constructed of welded stainless steel. It is electrically case isolated with the crystal element isolated from the case and produces a differential output through a mil-std connector.

## 02 Key features and benefits

- Rugged hermetic design
- Balanced differential output
- Ground Isolated
- Various cable lengths and connectors

## 03 Applications

- Gas-turbine monitoring

## 04 Contact

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**HIGH TEMPERATURE GAS TURBINE ACCELEROMETER, Model 6240M4/5/6X**

**05 Specifications**

The following performance specifications are typical values, referenced at +75°F (+24°C) unless otherwise noted.

<b>Dynamic Characteristics</b>	<b>Units</b>	
Charge sensitivity	pC/g	50 ±5%
Resonance frequency	kHz	15
Frequency Response	%	±5% from 20 Hz -350 Hz
Charge Temperature Response	%	±10% from 80°F (27°C) to 900°F (482°C)
Transverse sensitivity(maximum)	%	5
Amplitude linearity to 100 g	%	1
<b>Electrical characteristics</b>		
Output polarity		Acceleration directed into base of unit produces positive output
Resistance (between pins)	GΩ	>1
At 900°F (482°C)	KΩ	10
Isolation (between pins)		
Over temperature range	MΩ	100
Capacitance (maximum)	pF	3000
<b>Environmental characteristics</b>		
Temperature Range		
Accelerometer	°F(°C)	-65 to 900 (-54 to 482), extreme to 930 (499)
Connector	°F(°C)	-65 to 500 (-54 to 260)
Humidity		Hermetically sealed
Sinusoidal vibration limit	gpk	200
Shock limit	gpk	1000
<b>Physical characteristics</b>		
Dimensions		See outline detail
Case Material		Inconel 600
Hardline cable		Twisted pair, mineral oxide insulation, metal sheath with SST overbraid (.250 ø). See Model number table for length
Connector		See Model number table for connector type and keyway
<b>Calibrations Supplied</b>		
Charge sensitivity	pC/g	
Frequency response	%	
Resistance	Ω	
Capacitance	pF	
Cable Pull		Tested at 50 pounds

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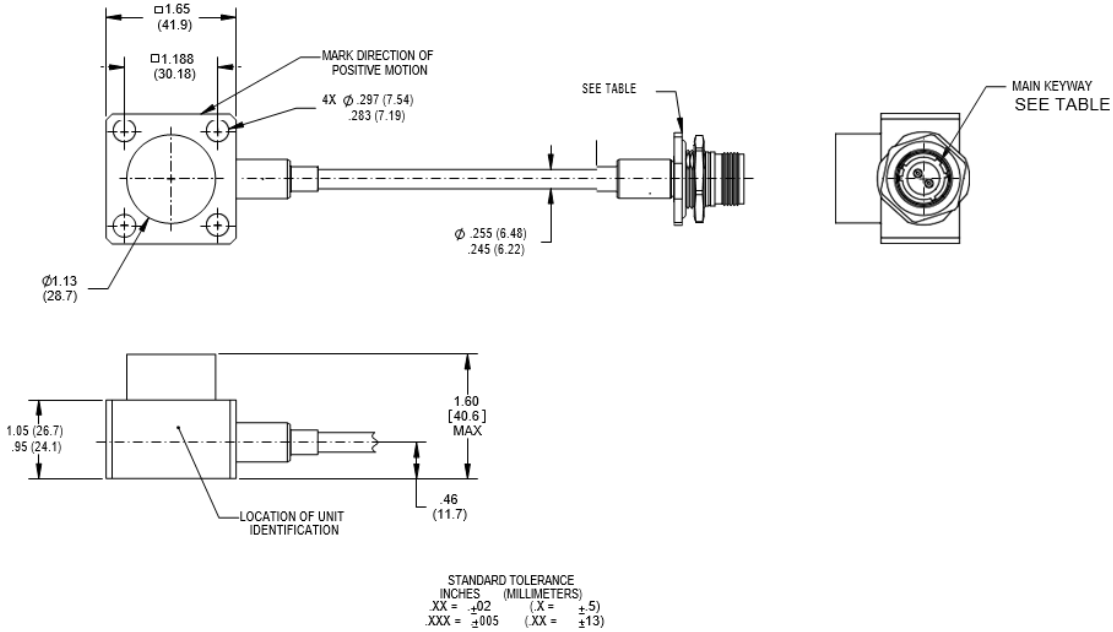
**Various Options (Model Number Table)**

MODEL	TEMP	SENSITIVITY	FREQ RESP (+5%)	CABLE LENGTH (in)	CONNECTOR
6240M4	900°F	50pC/g	20Hz to 350Hz	84.5/83.5	MS3106R-10SL-4P
6240M43	900°F	50pC/g	20Hz to 350Hz	82/80	M83723/89Y 1020-6
6240M45	900°F	50pC/g	20Hz to 350Hz	54/52	M83723/89Y 1020-6
6240M46	900°F	50pC/g	20Hz to 350Hz	28/24	M83723/89Y 1020-N
6240M49	900°F	50pC/g	20Hz to 350Hz	40/39	M83723/89Y 1020-6
6240M50	900°F	50pC/g	20hz to 350Hz	62/60	M83723/89Y 1020-N
6240M51	900°F	50pC/g	20Hz to 350Hz	84.5/83.5	MS3106R-10SL-4P
6240M52	900°F	50pC/g	20Hz to 350Hz	NA	MS3106R-10SL-4P
6240M56	900°F	50pC/g	20Hz to 350Hz	49/47	M83723/89Y 1020-N
6240M57	900°F	50pC/g	20Hz to 350Hz	62/60	M83723/89Y 1020-6
6240M58	900°F	50pC/g	20Hz to 350Hz	50/48	M83723/89Y 1020-6
6240M60	900°F	50pC/g	20Hz to 350Hz	56/54	M83723/89Y 1020-N

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06 Outline details



Note:



Continued product improvement necessitates that MEGGITT reserve the right to modify these specifications without notice. MEGGITT maintains a program of constant surveillance over all products to ensure a high level of reliability. This program includes attention to reliability factors during product design, the support of stringent Quality Control requirements, and compulsory corrective action procedures. 010121