

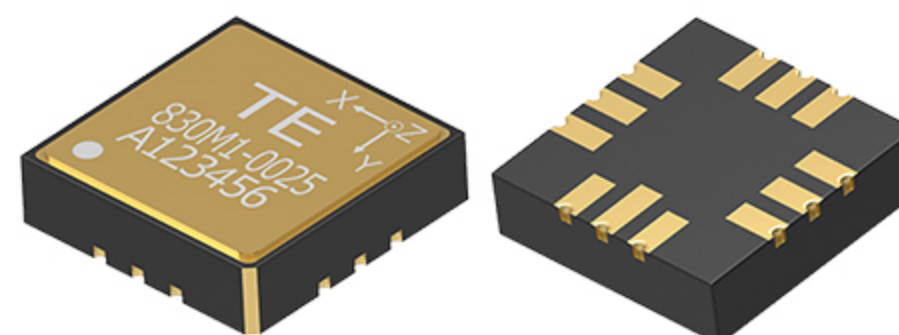
# Model 830M1 Triaxial SMT Accelerometers



MEAS | MEAS 830

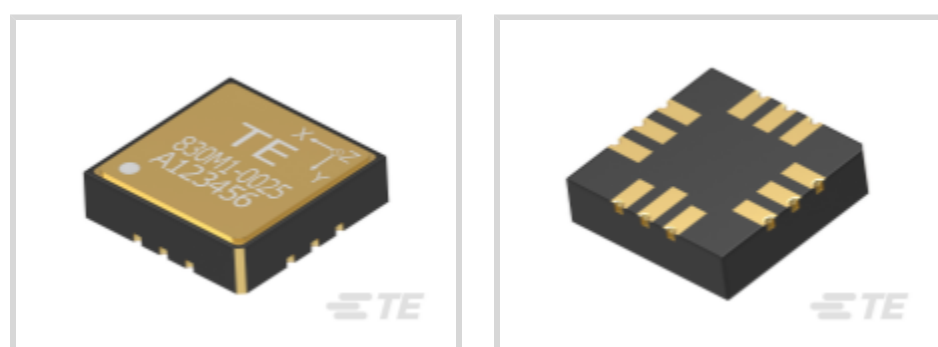
[View on TE.com >](#)

**Wide bandwidth triaxial  
Piezoelectric accelerometer for  
critical machine health monitoring.**



[Sensors > Vibration Sensors > Embedded Accelerometers](#)

The 830M1 embedded Piezoelectric (PE) accelerometer offers advanced acceleration sensing for machine health monitoring where wide bandwidth, small size, low power, and robust performance are essential.



Frequency Response: **2 to 15000 Hz**

Accelerometer Type: **3-Wire Voltage**

Number of Axes: **3**

Embedded Accelerometer Sensor Type: **AC Response Embedded Accelerometers**

Embedded Accelerometer Mounting Type: **Solder**

[830M1 Triaxial Accelerometer \(English\)](#)

The 830M1 is a wide bandwidth (up to 15kHz), triaxial piezoelectric accelerometer designed for embedded critical machine health monitoring. Watch this video to learn more.

Factories are becoming more autonomous and downtime of these automated machines can be costly. Sensors are being used to capture critical performance data for improved efficiency, lower costs, and better equipment utilization of factory machinery.

The triaxial embedded 830M1 accelerometer from TE Connectivity (TE) offers advanced acceleration sensing for machine health monitoring where wide bandwidth, small size, low power, and robust performance are essential.

Optimized for critical machine health monitoring the 830M1 offers an outstanding measurement bandwidth (up to 15 kHz), superior resolution and is designed with highly stable PE sensing technology, to provide long-term, reliable, stable and accurate performance for condition monitoring applications in harsh environments.

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**15kHz**      **X Y Z**      **2000g**

Wide Bandwidth

Triaxial Measurement

±25g to ±2,000g Dynamic Ranges

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### Applications

- Condition Monitoring
- Predictive Maintenance Installations
- Embedded Vibration Monitoring
- Impact & Shock Monitoring
- Data Loggers
- Bearing & Shaft Monitoring
- Security Monitoring

### Benefits

- Triaxial Piezoelectric (PE) Accelerometer
  - ±25g to ±2,000g Dynamic Ranges
  - Wide Bandwidth to 15,000Hz
  - Superior Resolution to MEMS Devices
  - Circuit Board Mountable, Reflow Solderable
  - Temperature Sensor Included
- 

### Infographic

[Five Benefits of our 830M1 Accelerometer for Machine Health Monitoring \(English\)](#)

## White Papers

[Condition Monitoring with Vibration Sensors \(English\)](#)

[Wide Bandwidth Accelerometer for Condition Monitoring \(English\)](#)

## Solution Guide

[Embedded Accelerometers for Machine Health Monitoring \(English\)](#)

## Features

### Product Type Features

Accelerometer Type	3-Wire Voltage
Embedded Accelerometer Sensor Type	AC Response Embedded Accelerometers

### Electrical Characteristics

Excitation Voltage (VDC)	2.8 - 5.5
Full Scale Output Voltage (VDC)	±1.25

### Signal Characteristics

Frequency Response (Hz)	2 to 15000
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### Body Features

Material	Ceramic
Weight (g)	1
Weight (oz)	.12
Number of Axes	3

### Mechanical Attachment

Embedded Accelerometer Mounting Type	Solder
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### Usage Conditions

Operating Temperature Range (°C)	-40 - 125, -40 - 125
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Operating Temperature Range (°F)	-40 - 257, -40 - 257
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**Other**

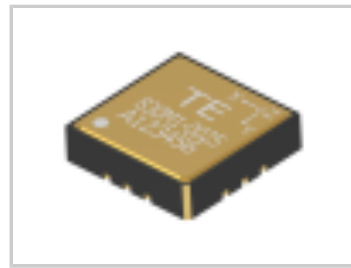
Nonlinearity (%FSO)	±2
Acceleration Range (±) (g)	25, 50, 100, 200, 500, 1000, 2000
Overall Acceleration Range (±) (g)	25, 50, 100, 200, 500, 1000, 2000
Sensitivity (mV/g)	.63, 1.25, 2.5, 6.3, 12.5, 25, 50
Sensitivity Range (mV/g)	.63, 1.25, 2.5, 6.3, 12.5, 25, 50

**Reference Number**

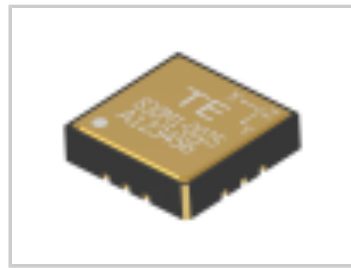
TE Internal Number	CAT-EAC0023
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SEE PRODUCTS ON NEXT PAGE

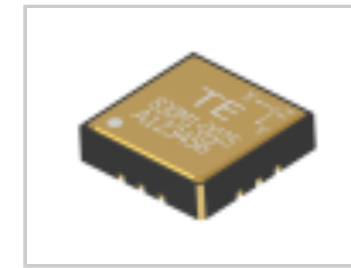
Products (1 of 4)



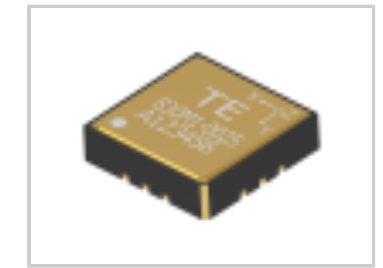
830M1-0200 Triaxial, 200g, Tray



830M1-0050 Triaxial, 50g, Tray



830M1-0025 Triaxial, 25g, Tray



830M1-0025 Triaxial, 25g, T/R

TE Part #	20011425-00	20011423-00	20011422-00	20011422-01
Acceleration Range (±)	200 g	50 g	25 g	25 g
Overall Acceleration Range (±)	200 g	50 g	25 g	25 g
Sensitivity	6.3 mV/g	25 mV/g	50 mV/g	50 mV/g
Sensitivity Range	6.3 mV/g	25 mV/g	50 mV/g	50 mV/g
EU RoHS Directive 2011/65 /EU	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS
EU ELV Directive 2000/53/EC	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV
Product Families	MEAS	MEAS	MEAS	MEAS
Series	MEAS 830	MEAS 830	MEAS 830	MEAS 830

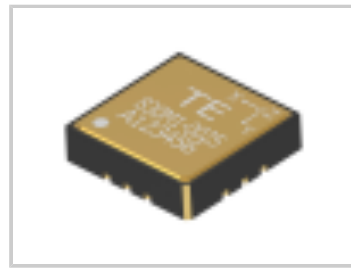
**\*EU RoHS Directive 2011/65/EU**

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

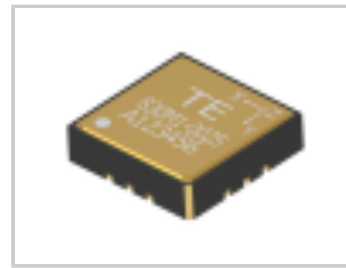
**\*\*EU ELV Directive 2000/53/EC**

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds.

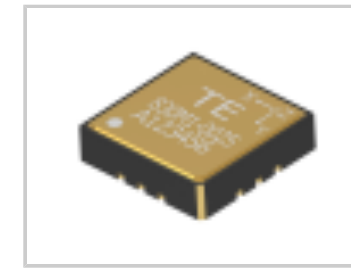
Products (2 of 4)



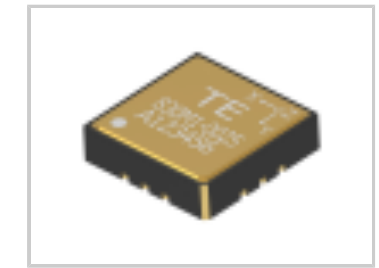
830M1-0050 Triaxial, 50g, T/R



830M1-0100 Triaxial, 100g, Tray



830M1-0100 Triaxial, 100g, T/R



830M1-0200 Triaxial, 200g, T/R

TE Part #	20011423-01	20011424-00	20011424-01	20011425-01
Acceleration Range (±)	50 g	100 g	100 g	200 g
Overall Acceleration Range (±)	50 g	100 g	100 g	200 g
Sensitivity	25 mV/g	12.5 mV/g	12.5 mV/g	6.3 mV/g
Sensitivity Range	25 mV/g	12.5 mV/g	12.5 mV/g	6.3 mV/g
EU RoHS Directive 2011/65 /EU	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS
EU ELV Directive 2000/53/EC	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV
Product Families	MEAS	MEAS	MEAS	MEAS
Series	MEAS 830	MEAS 830	MEAS 830	MEAS 830

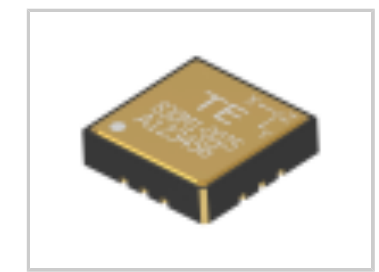
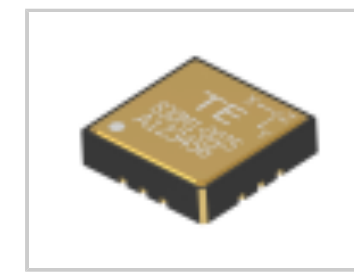
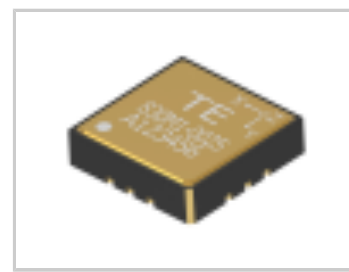
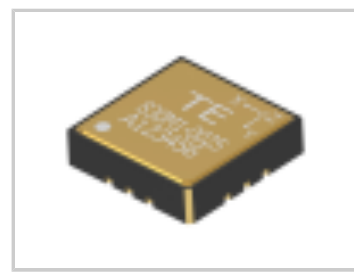
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Products (3 of 4)



830M1-0500 Triaxial, 500g, Tray

830M1-0500 Triaxial, 500g, T/R

830M1-1000 Triaxial, 1000g, Tray

830M1-1000 Triaxial, 1000g, T/R

TE Part #	20011426-00	20011426-01	20018122-00	20018122-01
Acceleration Range (±)	500 g	500 g	1000 g	1000 g
Overall Acceleration Range (±)	500 g	500 g	1000 g	1000 g
Sensitivity	2.5 mV/g	2.5 mV/g	1.25 mV/g	1.25 mV/g
Sensitivity Range	2.5 mV/g	2.5 mV/g	1.25 mV/g	1.25 mV/g
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS
EU ELV Directive 2000/53/EC	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV
Product Families	MEAS	MEAS	MEAS	MEAS
Series	MEAS 830	MEAS 830	MEAS 830	MEAS 830

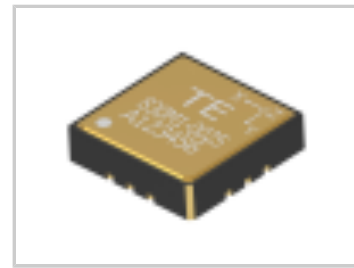
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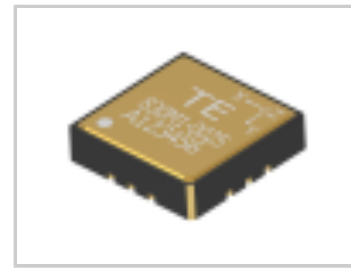
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Products (4 of 4)



830M1-2000 Triaxial, 2000g, Tray



830M1-2000 Triaxial, 2000g, T/R

TE Part #	20019427-00	20019427-01
Acceleration Range (±)	2000 g	2000 g
Overall Acceleration Range (±)	2000 g	2000 g
Sensitivity	.63 mV/g	.63 mV/g
Sensitivity Range	.63 mV/g	.63 mV/g
EU RoHS Directive 2011/65/EU	Not Yet Reviewed for EU RoHS	Not Yet Reviewed for EU RoHS
EU ELV Directive 2000/53/EC	Not Yet Reviewed for EU ELV	Not Yet Reviewed for EU ELV
Product Families	MEAS	MEAS
Series	MEAS 830	MEAS 830

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## Related Materials

### Customer View Model

[Customer View Model](#)

3D

### Data Sheet

[830M1\\_Triaxial\\_Accelerometer](#)

English

### Customer View Model

[Customer View Model](#)

English

### Customer View Model

[Customer View Model](#)

English

### Customer View Model

[Customer View Model](#)

English

### Infographic

[Five Benefits of our 830M1 Accelerometer for Machine Health Monitoring \(English\)](#)

### Solution Guide

[Embedded Accelerometers for Machine Health Monitoring \(English\)](#)

### Webinar

[Reducing Costly Downtime: Accelerometers Transform Machine Maintenance](#)

Factories are becoming more autonomous and require sensors to monitor equipment on the factory. Watch this webinar to learn how sensors are capturing critical data for performance analytics, improved efficiency, lower costs, and better equipment utilization.

English

### White Paper

[Condition Monitoring with Vibration Sensors \(English\)](#)

English

## Also in the Series | MEAS 830



Embedded Accelerometers(14)