

# Intrinsically safe triaxial accelerometer

## 993B-7-M12 [CERT]

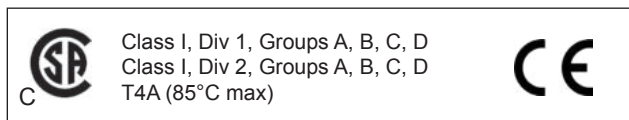
### SPECIFICATIONS

<b>Sensitivity, <math>\pm 10\%</math>, 25°C</b>	100 mV/g
<b>Acceleration range</b>	60 g peak
<b>Amplitude nonlinearity</b>	1%
<b>Frequency response<sup>1</sup>:</b>	
<b>Z axis, <math>\pm 3</math> dB</b>	2 - 10,000 Hz
<b>X and Y axes, <math>\pm 3</math> dB</b>	2 - 7,000 Hz
<b>Resonance frequency</b>	>35 kHz
<b>Transverse sensitivity, max</b>	7% of axial
<b>Power requirement:</b>	
<b>Voltage source</b>	18 - 30 VDC
<b>Current regulating diode</b>	2 - 5 mA
<b>Electrical noise, equiv. g, nominal:</b>	
<b>Broadband 2.5 Hz to 25 kHz</b>	160 $\mu$ g
<b>Spectral 10 Hz</b>	10 $\mu$ g/ $\sqrt{\text{Hz}}$
<b>100 Hz</b>	2.0 $\mu$ g/ $\sqrt{\text{Hz}}$
<b>1,000 Hz</b>	1.5 $\mu$ g/ $\sqrt{\text{Hz}}$
<b>Output impedance, max</b>	400 $\Omega$
<b>Bias output voltage</b>	12 VDC
<b>Grounding</b>	case isolated, internally shielded
<b>Turn-on time</b>	<1 sec
<b>Temperature range</b>	-50° to +120°C
<b>Vibration limit</b>	500 g peak
<b>Shock limit</b>	5,000 g peak
<b>Electromagnetic sensitivity, equiv. g, max</b>	100 $\mu$ g/gauss
<b>Sealing</b>	hermetic
<b>Base strain sensitivity, max</b>	0.0005 g/ $\mu$ strain
<b>Weight (excluding cable)</b>	124 grams
<b>Case material</b>	316L stainless steel
<b>Mounting</b>	10-32 captive screw
<b>Output connector</b>	4 pin, M12 style
<b>Mating connector</b>	RM12S
<b>Recommended cabling</b>	4 conductor, shielded

**Notes:** <sup>1</sup> As measured using the TCC-993 mounting screw.

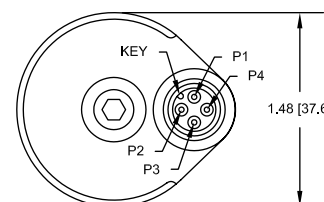
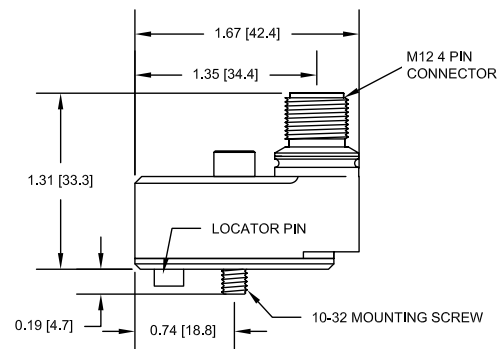
**Accessories supplied:** Captive screw; calibration data

### Certifications



### Key features

- Three axis simultaneous sensing
- Hazardous area certified - intrinsically safe
- Manufactured in ISO 9001 facility



Connections	
Function	Connector pin
X axis, power/signal	1
Y axis, power/signal	2
Z axis, power/signal	3
common (all channels)	4
ground	shell

Note: Due to continuous process improvement, specifications are subject to change without notice.  
This document is cleared for public release.