



## CE 680 M611

### Piezoelectric accelerometer with integrated electronics

#### FEATURES

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- » From the Vibro-Meter® product line
- » Designed for medium temperature industrial applications (-55 to +120 °C)
- » Frequency response:  
2 Hz to 5 kHz: ±10%  
0.8 Hz: -3 dB
- » Sealed for harsh environments:  
IP67 protection rating
- » Ground isolated from case



#### DESCRIPTION

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The CE 680 M611 is an all-purpose vibration sensor designed for use with machinery in harsh industrial environments. It uses the industry standard 2-wire

voltage transmission technique with a constant current supply. The output signal has a sensitivity of 100 mV/g.



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## SPECIFICATIONS

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Note: Unless otherwise stated, all values listed are typical values, referenced at +23°C, 24 V<sub>DC</sub> supply, 6 mA constant current and 120 Hz.

### Operating

Sensitivity	: 100 mV/g ±10%
Dynamic range	: 80 g
Transverse sensitivity	: < 5%
Linearity	: < 1% up to full-scale
Frequency response (nominal)	
• 2 Hz to 5 kHz	: ±10%
• 0.8 Hz	: -3 dB
Resonant frequency (nominal)	: 18 kHz
Temperature response	
• Typical deviation	
• -50 to +120°C	: ±10%
• -55°C	: -10%
• 120°C	: +10%

### Electrical

Input supply current	: 0.5 to 8 mA
Supply voltage for current source	: 18 to 30 V <sub>DC</sub>
Bias voltage (nominal)	: 12 V <sub>DC</sub>
Residual noise (maximum)	: 0.1 mg
Output impedance (nominal)	: 150 Ω
Grounding	: Base isolated
Reversed polarity	: Protected

### Environmental

Temperature range	: -55 to +120°C
Protection rating (according to IEC 60529)	: IP67
Sinusoidal vibration limit	: 1000 g peak
Shock limit	: 7000 g peak
Base strain sensitivity (maximum)	: 0.0005 g peak/με
Electromagnetic sensitivity (equivalent)	: 50 μg/gauss

### Physical

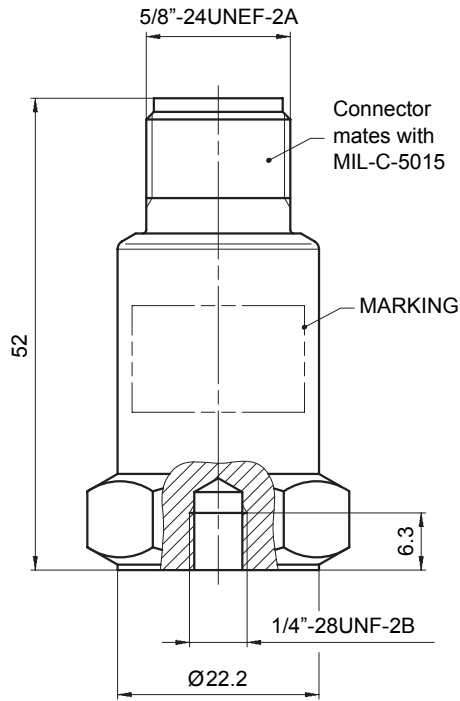
Weight (nominal)	: 110 g
Case material	: Stainless steel
Mounting torque	: 8 N•m
Mating connector	: MS3106F-10SL-4S or equivalent

### Calibration

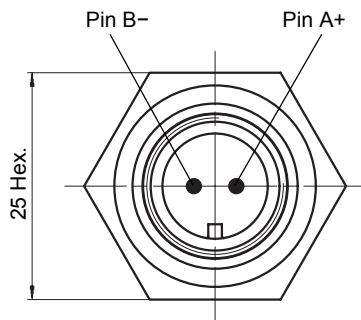
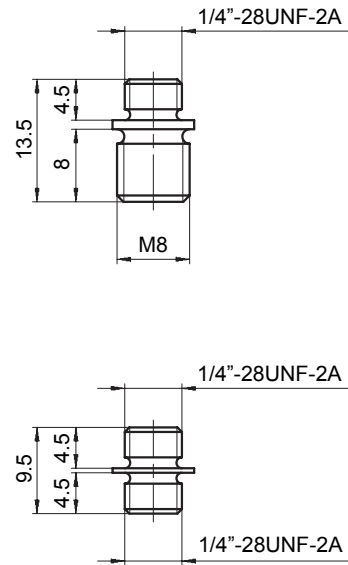
Dynamic calibration at factory. No subsequent calibration necessary.

MECHANICAL DRAWING

Accelerometer



Adaptor studs



**ORDERING INFORMATION**

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To order please specify

Type	Designation	Ordering number
CE 680 M611	Piezoelectric accelerometer	444-680-000-611

**ACCESSORIES**

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**Supplied**

Item	Type
• <i>Adaptor studs</i>	1/4 - 28 UNF 1/4 - 28 UNF to M8

**Optional**

Item	Type	Part number
• <i>Cables</i>	EC 318 EC 319	922-318-000Dxxx 922-319-000Dxxx
• <i>Mounting adaptor</i>	MA 122_012 1/4 - 28 UNF to M6 (with conic base)	809-122-000-012
• <i>Insulating stud</i>	MA 122_021 1/4 - 28 UNF to M6 (with conic base)	809-122-000-021

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The Meggitt Sensing Systems facility in Fribourg, Switzerland was formerly known as Vibro-Meter SA, but is now Meggitt SA. This site produces a wide range of vibration and dynamic pressure sensors capable of operation in extreme environments, leading-edge microwave sensors, electronics monitoring systems and innovative software for aerospace and land-based turbo-machinery.



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