



VSM797STM

Low Frequency Piezoelectric Accelerometer

The VSM797S is a hermetically sealed piezoelectric accelerometer designed to measure absolute vibration in harsh industrial environments. It incorporates a low-pass filter within the conditioning circuit to attenuate the sensor's mechanical resonance as well as the associated distortion and overload. The sensor features a low noise and temperature compensated design to ensure accurate results throughout the entire operating temperature range.

General Specifications

Operation (@ 24°C [75°F])

- Sensitivity 500 mV/g ±5%
- Measuring Range 10g Peak
- Amplitude Nonlinearity 1%
- Bandwidth 0.4 to 1600 Hz (- 10%)
0.2 to 3700 Hz (-3 dB)
- Resonance Frequency 16 KHz Nominal
- Transverse Sensitivity <5%
- Sensitivity Deviation vs Temperature -10% @ - 55°C [-67°F]
-3% @ 0°C [32°F]
5% @ 90°C [194°F]
- Residual Noise 25 µg RMS
- Output Impedance 50Ω Nominal
- Bias Output Voltage 12 Vdc ± 10%
- Grounding Case Isolated,
Internally Shielded
- Isolation (Case to Shield) 100 MΩ Minimum

Power Requirements

- Power Source ICP[®] Transmission Mode
- Voltage 22 to 28 Vdc
- Constant Current 2 to 10 mA_{dc}
- Reverse Polarity Protection Built-In

Connection

- Connector Type 4-Pin M12 Male
- Maximum Cable Length 300 m [984 ft] (Up to 1000 Hz)

Environmental

- Temperature Range -55 to 90°C [-67 to 194°F]
- Acceleration Limit 500 g Peak
- Shock Limit 5000 g Peak

Physical Characteristics

- Probe Body 316L Stainless Steel
- Weight 95g [3.4 oz]
- Mounting Threaded Mounting Hole (M6x1 Adapter Supplied)
- Mounting Torque 2.4 Nm [21 in - lbs]

Dimensions

