

PRODUCT INFORMATION

Accelerometer: Top Connector
Standard Applications

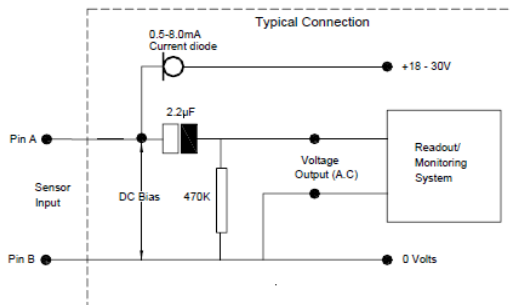
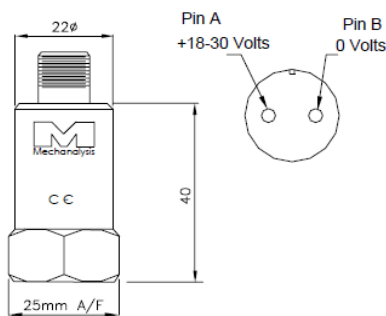
Model No:
MIL511

Part Number:
M5111005001000

The Mechanalysis model MIL511 is a standard accelerometer for measuring vibration on industrial rotating machinery. It has a top exit Mil 2 pin Connector. This sensor is primarily used with portable vibration meters. A magnetic holder is available as optional accessory for portable vibration measurements.

Applications: Applies to most Process Plants using Compressors, Blowers, Conveyors, Cooling Tower Fans, ID, FD, PA Fans, CW Pumps, Gear Boxes, Motors, Paper Machinery, Turbines etc.

Supplied Accessories	Qty	Part Number	Optional Accessories	Qty	Part No.
Sensor Mounting Adaptor Stud, M6	1	M60154	Cable 15.2m with MIL connector		M60048
Calibration Certificate	1	CCMIL511	Magnetic Holder		M24746



Technical Performance

Mounted Base Resonance	22 kHz (nominal)
Sensitivity	100 mV/g ± 10% Nominal 80 Hz at 22°C
Frequency Response	2 Hz to 10 kHz ± 5% 0.8 Hz to 15 kHz ± 3 dB
Isolation	Base isolated
Measurement Range	± 80g
Transverse Sensitivity	Less than 5%

Electrical

Electrical Noise	0.1 mg max
Current Range	0.5 mA to 8 mA
Bias Voltage	10 – 12 Volts DC
Settling Time	2 seconds
Output Impedance	200 Ohms max
Case Isolation	>10 ⁸ Ohms at 500 Volts

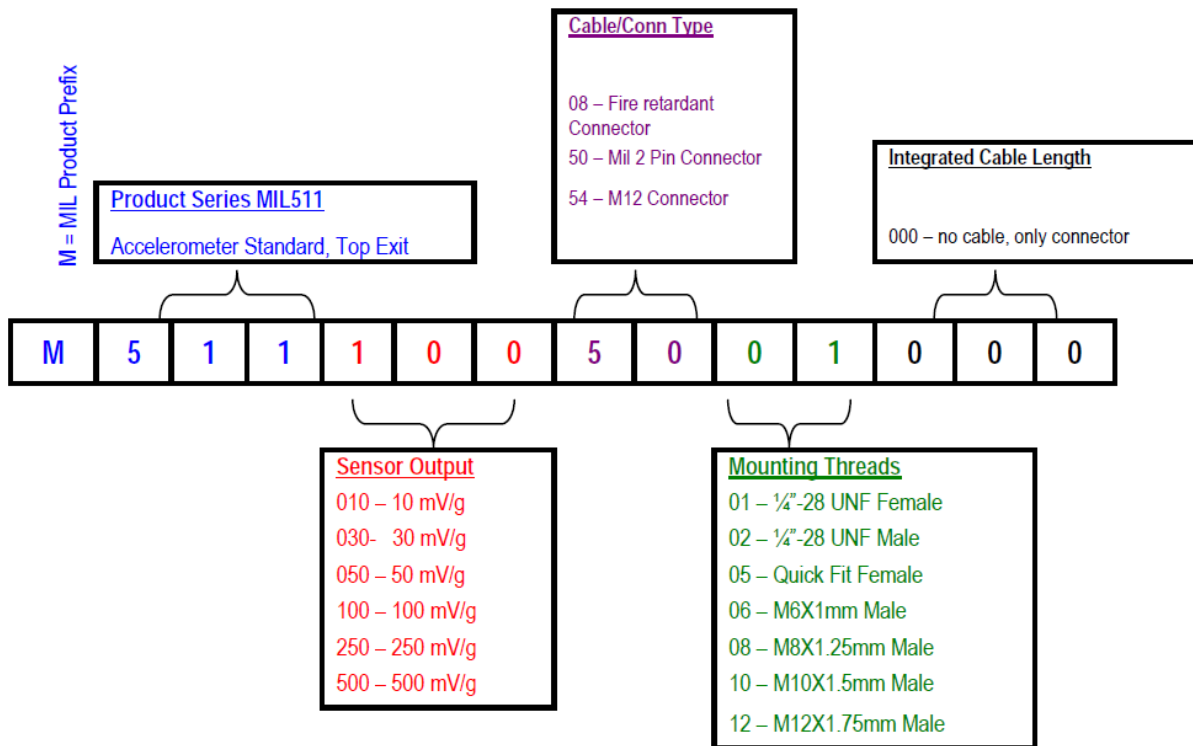
Environmental

Operating Temperature Range	-55 to 140°C
Sealing	IP67
Maximum Shock	5000 g
Emissions	EN61000-6-4:2001
Immunity	EN61000-6-2:1999

Mechanical

Case Material	Stainless Steel
Sensing Element /Construction	PZT / Compression
Mounting Torque	8 Nm
Weight	110 gms (nom)
Maximum Cable length	1000 meters
Connector	2-pin Mil-C-5015
Mounting	1/4" – 28 UNF Female
Options	Filters, Various connector assemblies, other sensitivities

MIL Part Number Selector System



Note on Sensor Output

- Most machinery applications are suitably covered by a sensor with a sensitivity of 100mV/g. However, you may wish specify different sensitivities because of the unique dynamic range of the particular machine to be monitored.
- A high sensitivity sensor, 500mV/g or 1V/g would be used for those machines operating at low speeds (say below 600 rpm) with high mass structures where vibration levels signals will inherently be of a low amplitude .
- For high dynamic ranges such as a high speed gearbox, you would use a low sensor sensitivity for example as low as 10mV/g, 50mVg etc.