

PRODUCT INFORMATION

Accelerometer: Side Integral Cable
Standard Applications

Model No:
MIL514

Part Number:
M5141000206005

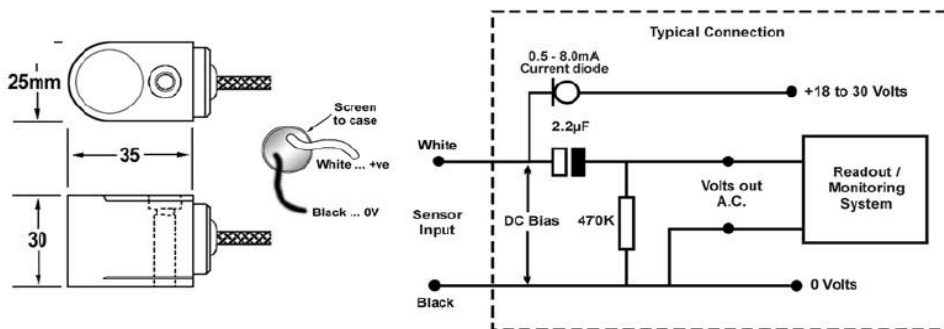
The Mechanalysis model MIL514 is a standard accelerometer for measuring vibration on industrial rotating machinery. This sensor can be used both with portable instruments and online installations. Its side exit with integrated braided cable and with low profile housing protects the sensor and cable from damage and is ideal for locations where space is limited. The optimum signal quality is achieved by the mounting bolt that does not create base strain. The bolt enables easy sensor removal before machine maintenance avoiding sensor damage.



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	Magnetic Holder		M24746
Calibration Certificate	1	CCMIL514			

Dimensions & Connections



Technical Performance

Mounted Base Resonance	22 kHz (nominal)
Sensitivity	100 mVg ± 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

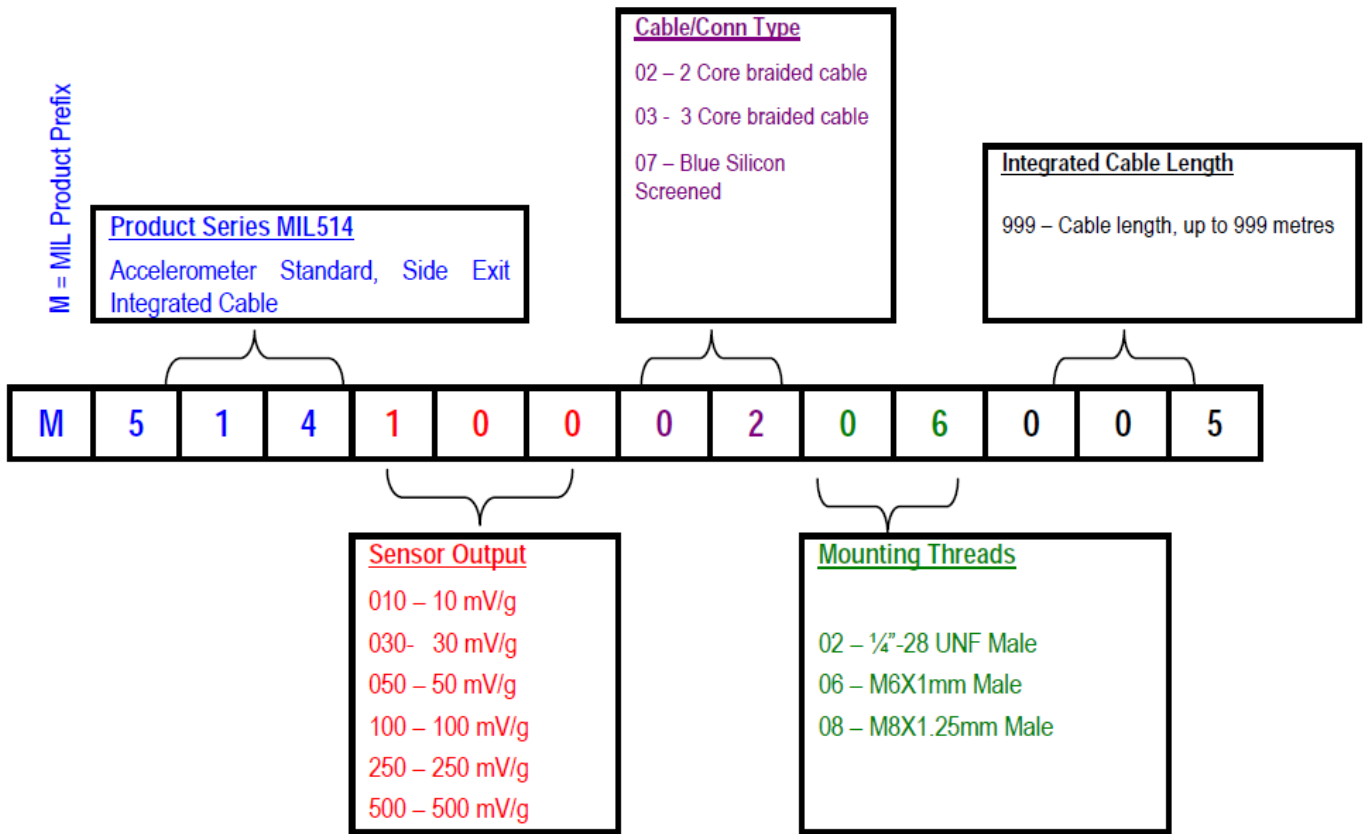
Environmental

Operating Temperature Range	-55 to 140°C
Sealing	IP65
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
Mounting Bolt	M6 x 33mm long, ¼-28 UNF X 33mm long or M8 x 33mm long
Weight	170 gms (nom)
Maximum Cable length	1000 meters
Standard Cable Length	5 metres overbraided ETFE
Options	Mounting, Cable 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.