

PRODUCT INFORMATION

Accelerometer: Top Integral Cable
Dual Output Temperature

Model No:
MIL516

Part Number:
M5161000201005

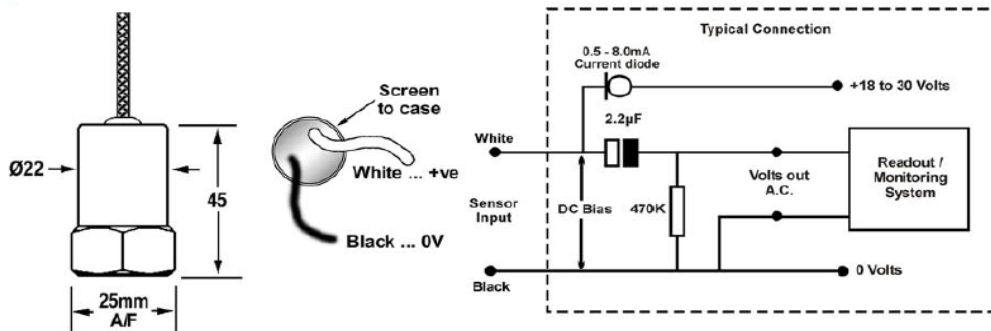
The Mechanalysis model MIL516 is a standard accelerometer for measuring vibration on industrial rotating machinery with temperature output. It has a top exit with integrated 5m braided cable with options up to 999m length. The sensor can be used for portable measurements as well as online installations. An option is available with a machined QuickFit mount when associated pads are mounted on machinery measurement points. This offers a superior frequency range compared to magnetic mounts and achieves consistent data collection for fixed machine check points.

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	CCMIL516	Sensor Pad SS for Accel. Stud QuickFit to M8 Male		M60118

Dimensions & Connections



Technical Performance

Mounted Base Resonance	22 kHz (nominal)
Sensitivity	100 mV/g \pm 10 % Nominal 80 Hz at 22°C
Frequency Response	2 Hz to 10 kHz \pm 5% 0.8 Hz to 15 kHz \pm 3 dB
Isolation	Base isolated
Measurement Range	\pm 80g
Temperature	\pm 10 mV/°C Standard 100°C, Option 140°C
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

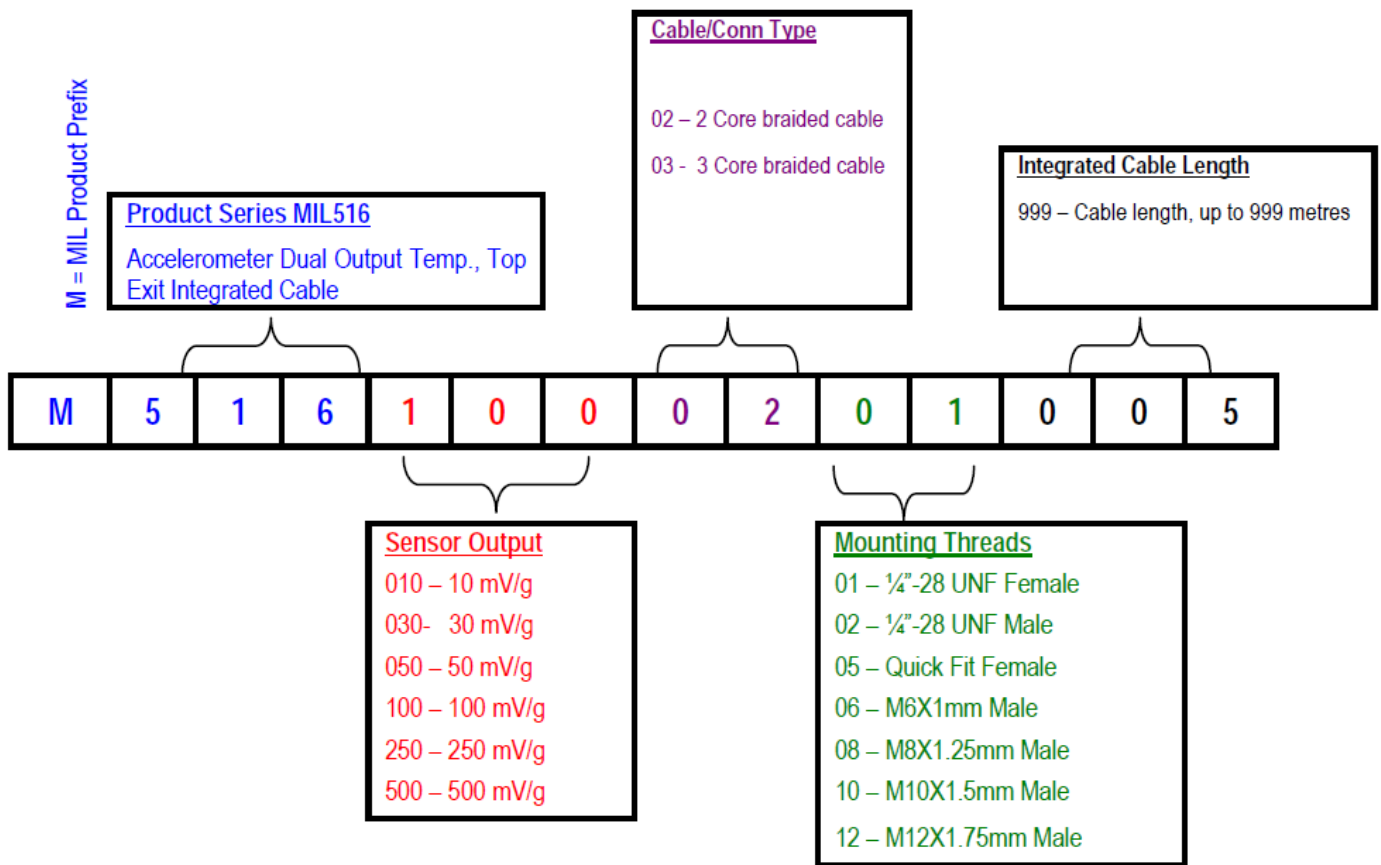
Environmental

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
Weight	110 gms (nom)
Maximum Cable length	1000 meters
Standard Cable Length	5 metres overbraided ETFE
Mounting	¼" – 28 UNF Female
Options	Cable length, Various mounts, 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.