

## PRODUCT SPECIFICATION

**Inductive Velocity Sensor:** On-Line, Square Base, Top Connector

**Model No:**  
MIL544M

**Part Number:**  
M97120

The Mechanalysis model MIL544M inductive vibration sensor is an industrial vibration measuring sensor for continuous on-line machinery protection, especially at the steam end of turbines (up to 260°C) and generator bearings. In production for over 35 years it continues to be the World's most widely used velocity sensor. The sensor can be mounted horizontal or vertical on a flat surface at the bearing housing or other critical points on a machine. It provides reliable continuous performance under a variety of adverse environmental conditions. India alone has more than 7000 in daily use.

The MIL544M inductive velocity sensor has a high output and low impedance, good frequency response makes the suitable for all types of machinery protection. The sensor's case insulates the signal from the housing to eliminate false alarms often encountered from ground loops and power surges. The sensor's hard anodized aluminium housing is IP65, waterproof, dustproof and approved for use in Division 2 hazardous areas. Calibrated to traceable National Standards, the sensor is supplied with a full frequency calibration test certificate. It can be serviced at MIL's Service Centre.

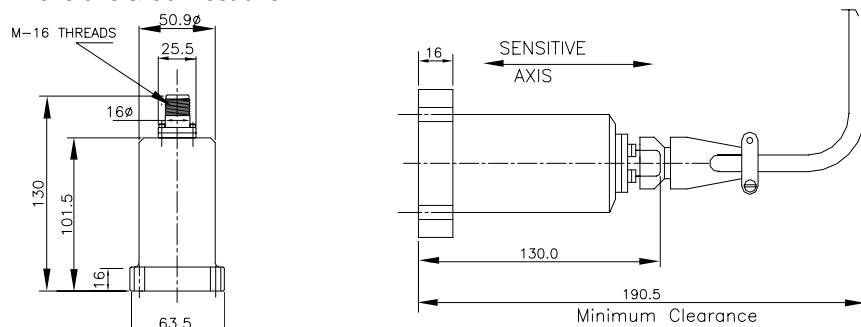


### Optional accessories:

Magnetic shield (reduce sensitivity to AC magnetic field by 100:1)  
 Straight cable connector rated for continuous operation at 121°C  
 Right-angle connector rated for continuous operation at 121°C  
 Mounting Block (XY) for Model 544M Velocity Sensors  
 Mounting Bracket MS (XY) for Sensor  
 Mounting Bracket AL (XY) for Sensor

Qty	Part Number
1	M10449
1	M43660
1	M14797
1	M60014
1	M60019
1	M60020

### Dimensions & Connections



### Technical Performance

Frequency Response:	14 to 1,000 Hz within $\pm 8\%$ 10Hz - 20% (average) at 21°C
Sensitivity:	42.52 mV/mm/sec $\pm 10\%$
Impedance:	R=2k ohms, L = 0.7 H at 21°C
Maximum Amplitude:	3175 microns Pk - Pk to 70 Hz; 30 g above 70 Hz
Transverse Response:	Less than 5% (average) 10 to 1,000 Hz
Isolation:	Signal insulated from case

### Mounting

Orientation:	Any (horizontal & vertical best)
Mounting:	(4) holes 7.15mm Dia. on 2 x 2 centres
Grounding:	Case and signal ground isolated
Connector:	2-pin Mil Spec

### Environmental

Operating range:	-40°C to 260°C
Housing:	IP65
Classification:	Class1, Div2

### Weight & Dimensions

Weight:	700 grams
Dimensions:	63.5mm (W) x 63.5mm (L) x 130.0 (H) overall
Construction:	Aluminium, Hard Anodised

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