

INGENIERIA ELECTRONICA APLICADA A LAS VIBRACIONES

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IRD Mechanalysis Ltd



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PRODUCT DATA SHEET

IRD544M Inductive Velocity Sensor On-Line Vibration Measurements



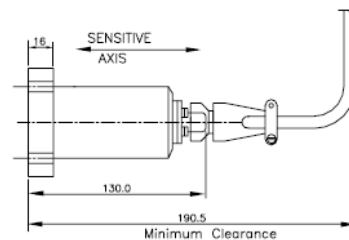
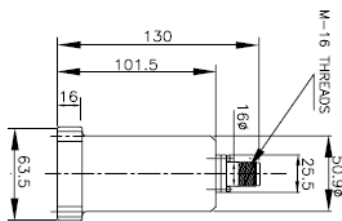
The model IRD544M inductive vibration sensor is an industrial vibration measuring device for continuous on-line machinery protection, especially at the steam end of turbines (<260°C) and generator bearings. In production for over 45 years it continues to be the world's most widely used velocity sensor. It can be mounted horizontal or vertical at the bearing housing or other critical points on a machine.

The IRD544M inductive velocity sensor has a high output, low impedance and suitable frequency response for most 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 Class1 Division 2 hazardous areas. Calibrated to traceable National Standards, the sensor is supplied with a full frequency calibration test certificate. It can only be serviced at an IRD National Service Centre.



BILL OF MATERIALS	Qty	Part Number
IRD544M Inductive Velocity Vibration Sensor, Square Base – On-Line		M97120
Optional Accessories:		
Magnetic shield (reduces sensitivity to AC magnetic field by 100:1)	1	M10449
Cable Assembly 10m, Teflon 3.5mm Dia (<260Degs C) Stainless Steel Conduit.. Mil 2 Pin connector with spade lugs at free end.	1	M60101
Right-angle connector rated for continuous operation at 121°C	1	M14797
Mounting Pad MS 60x60x16mm with M6 thread tapped Blackodised	1	M60015
Mounting Block MS (XY) 60x60x60mm with M6 thread tapped Blackodised	1	M60014
Mounting Bracket MS (XY) for Sensor	1	M60019

Dimensions & Connections



Technical Performance

Frequency Response:	14 to 1,000 Hz within <8% 10Hz - 20% (average) at 21°C
Sensitivity:	42.52 mV/mm/sec ± 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 × 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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IRD Mechanalysis Ltd. strives to continue to improve the above specification and retains the right to change them without notice

condition management solutions