

Model 544B

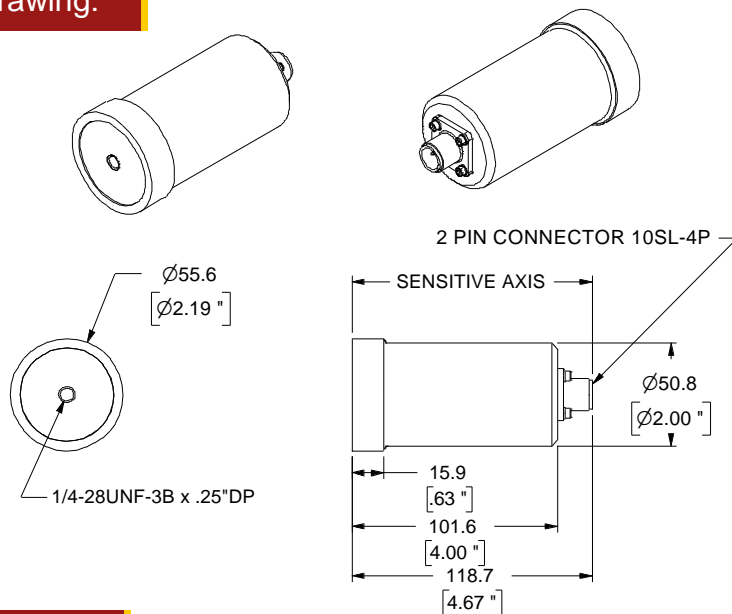
VELOCITY TRANSDUCER

The IRD Model 544B vibration sensor is a seismic velocity transducer with a moving coil in a permanent magnetic field. The Model 544B mounts permanently on a flat surface at the bearing housing or other critical points on any machine and provides reliable continuous performance under a variety of adverse environmental conditions.

Its high output, low impedance, wide frequency response, and rugged construction make the 544B suitable for all types of machinery monitoring applications. In addition, a hard anodized aluminum case insulates the signal coil from the housing to eliminate false monitor alarms often encountered from ground loops and power surges in many installations. The 544B is waterproof, dustproof, and acceptable for use in Division 2 hazardous areas.



Line Drawing:



Installation:

1. The sensitive axis may be oriented in any direction.
2. The mounting surface must be flat and smooth (minimum diameter = 2 3/8 in).
3. The mounting stud axis must be perpendicular to the mounting surface.
4. Hand-tighten only.
5. Connector Pin A is signal ground; Connector Pin B is signal.

544B

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GENERAL SPECIFICATIONS	
Frequency Response	14 to 1,000 Hz within $\pm 8\%$ @ 21°C
Sensitivity	1080 \pm 10% mV/in/sec (42.52 mV/mm/s)
Maximum Amplitude	125 mils pk-pk to 70 Hz 30 g above 70 Hz
Magnetic Field Sensitivity	0.15 in/s/Gauss
Output Impedance	R=2 k Ω L= 0.7H @ 70°F (21°C)
Housing	Waterproof and Dustproof
Damping Factor	0.7 (critical) @ 70°F (21°C)
Transverse Response	Less than 5% (average) between 10 to 100 Hz
Connector	2-pin (10SL-4P)
Isolation	Floating signal coil insulated from case
Mounting	1/4" - 28 tapped hole, 1/4" depth
Mounting Orientation	Any
Weight	1.5 lbs. (0.68 kg)
Temperature Range	-40° to 500° F (-40° to 260° C)

Ordering Information for Model 544B	
Part Number	Description
E12084	Model 544B Vibration Sensor
E10449	Magnetic Shield (reduce sensitivity to magnetic fields by 100:1)
E04224	Explosion-proof Enclosure (for installation in Division 1, Class 1, Group D, or Class II, Groups E,F,G Hazardous Areas)
E04332	Magnetic Holder, 65lb holding force
E01103	Aluminum Probe, 9-inch
E04521 (12') E04690 (25') E04691 (50')	Instrument interconnect cables for IRD Models 220/230/236/246/260/290/330 and 350, 3-pin connectors
E20433 (12') E30219 (25')	Instrument interconnect cables for IRD Models 220/230/236/246/260/290/330 and 350, 9-pin circular twist-on connectors

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