

## Model 544M

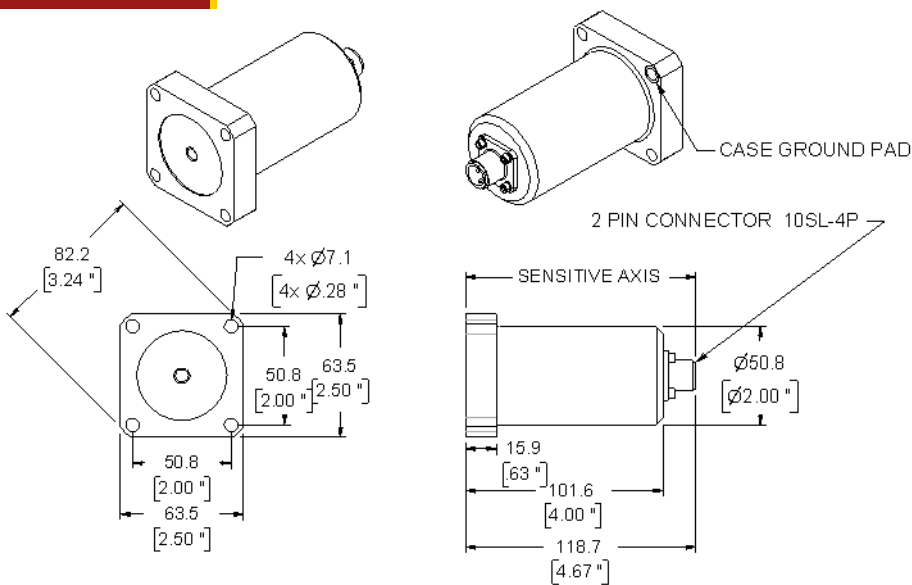
## VELOCITY TRANSDUCER

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

Its high output and low impedance, wide frequency response, and rugged construction make the 544M 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 field installations. The 544M is waterproof 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.
3. Use four M6 x 25mm ( $\frac{1}{4}$  x 1") machine screws.
4. Connector Pin A is signal ground; connector Pin B is signal.

544M



# Model 544M VELOCITY TRANSDUCER

GENERAL SPECIFICATIONS	
Frequency Response	14 to 1,000 Hz within $\pm 8\%$ @ 70° F (21° C)
Sensitivity	1080 $\pm$ 10% mV/in/s (42.52 mV/mm/s)
Maximum Amplitude	125 mils pk-pk to 70 Hz 30 g above 70 Hz
Impedance	R=2 k $\Omega$ L= 0.7H @ 70° F (21° C)
Magnetic Field Sensitivity	0.15 in/s/Gauss
Damping Factor	0.7 (critical) @ 70° F (21° C)
Transverse Response	Less than 5% (average) between 10 and 1,000 Hz
Housing	Waterproof and Dustproof
Connector	2-pin (10SL-4P)
Isolation	Floating signal coil insulated from case
Mounting	Four (4) holes 9/32" dia. (7.1 mm) on 2" x 2" centers
Mounting Orientation	Any
Weight	1.5 lbs. (0.68 kg)
Temperature Range	-40° to 500° F (-40° to 260° C)

Ordering Information for Model 544M	
Part Number	Description
E09712	Model 544M Vibration Sensor
E04224	Explosion-proof Enclosure (for installation in Division 1, Class 1, Group D, or Class II, Groups E,F,G Hazardous Areas)
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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