

# Model 544M

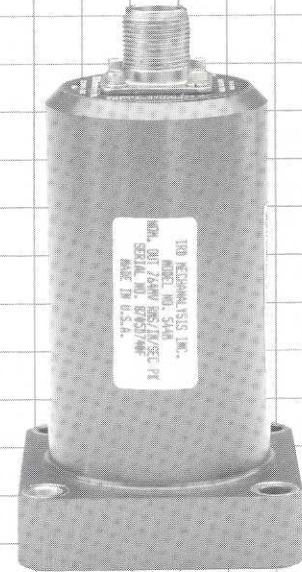
## Vibration Pickup

SPEC SHEET: 41-02  
EFFECTIVE: Aug 1990

### DESCRIPTION

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

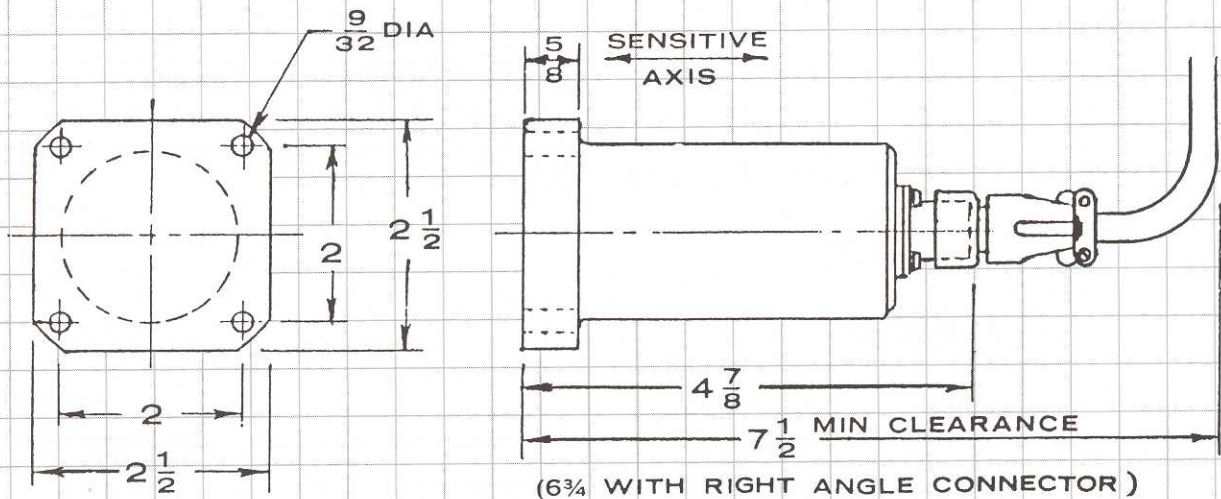
Its high output and low impedance, wide frequency response and rugged construction make the 544M suitable for all types of machinery monitoring applications. In addition, a hard anodized aluminum case insulates the signal coil from the housing to eliminate false monitor alarms often encountered from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



### INSTALLATION

1. Sensitive axis may be oriented in any direction.
2. Mounting surface must be flat and smooth.
3. Use 1/4-28 x 1 hex head machine screws.

### OUTLINE DIMENSIONS



### ORDERING INFORMATION

(Qty) P/N 9712 Model 544M Vibration Pickup

# IRD Mechanalysis



**FREQUENCY RESPONSE**

14 Hz - 1000 Hz  $\pm$  8%  
 10 Hz: - 20% (Avg.)  
 Measured at 70°F (21°C)

**SENSITIVITY**

764  $\pm$  10% mV RMS/in/sec (peak)

**TEMPERATURE RANGE**

-40°F to + 500°F  
 (-40°C to + 260°C)

**IMPEDANCE**

R = 2K ohms; L = 0.7 H at 70°F (21°C)

**DAMPING FACTOR**

0.7 (critical) at 70°F (21°C)

**MOUNTING ORIENTATION**

Any

**TRANSVERSE RESPONSE**

Less than 5% (average) between 10 Hz and 1000 Hz

**MAGNETIC FIELD SENSITIVITY**

0.15 inches/sec/gauss

**HOUSING**

Waterproof, dustproof

**CONNECTOR**

2-pin GS-02-10SL-4P

**WEIGHT**

21 oz

**ISOLATION**

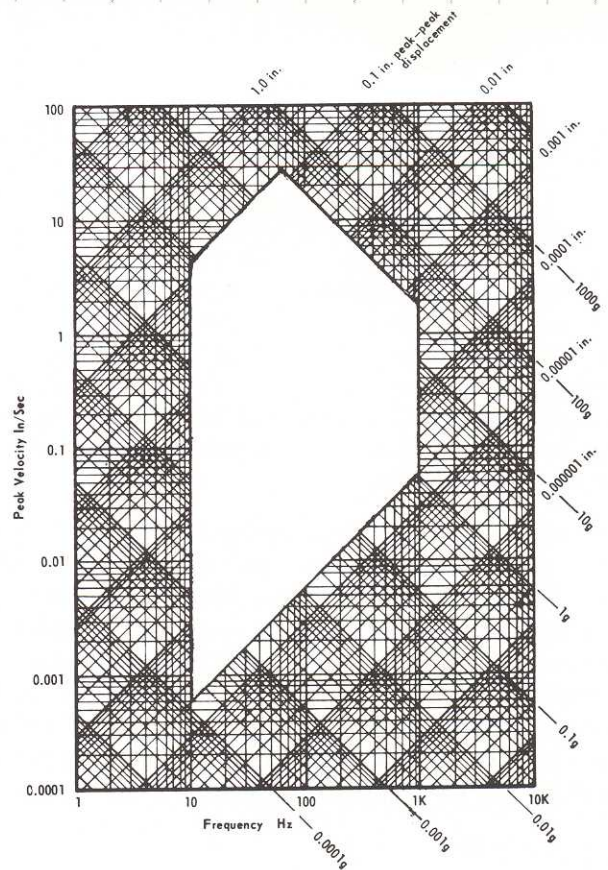
Floating signal coil insulated from case

**MOUNTING**

(4) holes 9/32 dia. on 2 x 2 centers

**MAX AMPLITUDES**

125 mils pk-pk to 70 Hz; 30g above 70 Hz

**OPTIONAL ACCESSORIES**

- Explosion-proof Enclosure - for installations in Division 1 Class I, Group D or Class II Groups E, F, G Hazardous Areas P/N 4224
- Safety Barrier - for intrinsically safe installations in Division 1, Class I, Groups B, C, D Hazardous Areas P/N 7685
- Straight Cable Connector P/N 4366 (up to 250°F, 121°C) P/N 15039 (up to 500°F, 260°C)
- Right Angle Connector P/N 14797 (up to 250°F, 121°C)
- Magnetic Shield to reduce magnetic field sensitivity by 100:1 P/N 10140

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