



IRD811D Digital Vibration Meter (Accelerometer)



Reliable – Robust – Reasonable

The IRD Mechanalysis model IRD811D portable digital vibration meter is suitable for most industrial applications with an easy to read digital display. Hand held it measures machinery vibration in terms of displacement (microns), velocity (mm/sec), acceleration (g) and Spike Energy™ (gSE™). Its integrated circuit technology provides wide dynamic range and long battery life.

From precision bearing inspection to plant-wide maintenance, the IRD811D has the sensitivity for measuring fractions of a micrometer to 2000 microns. Also, the widely acclaimed IRD Spike Energy™ (gSE™) circuit is included. The broadband measurement of gSE™ enables detection and measuring of "bursts" of spike energy at ultrasonic frequencies. Bearing defects developing such as micro spalls, cracks and lack of lubrication can be quickly identified thus preventing unscheduled plant outage.

| BILL OF MATERIALS | Qty | Part Number |
|--|-----|-------------|
| IRD811D Digital Vibration Meter | 1 | M81102 |
| Accelerometer Multi-purpose, model IRD511 - 100 mV/g, 2.0 Hz - 10 kHz, top connector | 1 | M51100 |
| Cable Assembly for model IRD811D to IRD511 Accelerometer sensor - 1.2m (4ft), rubber insulated, shielded | 2 | M60022 |
| Magnetic Portable Base, IRD500 Series Accelerometers | 1 | M24828 |
| Stinger, Al 225mm long for Sensor | 1 | M24827 |
| Carrying Case | 1 | M25346 |
| Battery Set, 2 Nos. of 9V, 100mAH Dry Cells | 1 | M30642 |
| Manual Operating | 1 | M43082 |
| Optional Accessories | | Part Number |
| Shaft Fish Tail Stick - Absolute Vibration for IRD544 | | M24824 |
| Manual Training - IRD MVT 1 | | M51001 |



SPECIFICATION

Measurement Ranges

| | |
|-------------------|--|
| Displacement: | - 20 microns, 200 microns, 2,000 microns pk-pk |
| Velocity: | - 20 mm/sec, 200 mm/sec, 2,000 mm/sec pk |
| Acceleration: | - 20 g, 200 g, 2000 g pk |
| Spike Energy™ RMS | - 20 gSE™, 200 gSE™, 2000 gSE™ |
| | - Available on request |

Frequency Range

| | |
|---------------|--|
| Displacement: | - 300 CPM to 24,000 CPM (5 Hz to 400 Hz) |
| Velocity: | - 300 CPM to 150,000 CPM (5 Hz to 2,500 Hz) |
| Acceleration: | - 300 CPM to 600,000 CPM (5 Hz to 10,000 Hz) |

Accuracy

| | |
|-------------|----------------------------------|
| Instrument: | - 1% of Full Scale Reading (FSR) |
|-------------|----------------------------------|

Input / Output

| | |
|---------|---------------------------------|
| Input: | - Accelerometer |
| Output: | - LC Digital Display (3½ Digit) |

Power Requirements

| | |
|---------------------|---|
| Internal Batteries: | - Battery Set, 2 Nos. of 9V, 100mAH Dry Cells |
|---------------------|---|

Environmental

| | |
|-----------------|------------------|
| Operating temp: | - 0°C to +55°C |
| Storage temp: | - -18°C to +60°C |

Weight & Dimensions

| | |
|------------------|--|
| Instrument only: | - 0.4Kg, 175mm (L) x 80mm (W) x 54mm (H) |
| Carrying Case: | - 2.0 Kg (inc. meter and standard accessories) |



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