IRD7100 MPT

Machinery Protection Transmitter

Wall Mounted Vibration Transmitter for Round-the-Clock Monitoring

IRD Mechanalysis

Introduction: IRD7100 MPT is a **Wall-Mountable** Machinery Protection Transmitter (MPT) designed for **Round-the-Clock Vibration Monitoring** of Machines like Motors, Pumps, Fans, Compressors, Turbines and More. It has a rugged **Al Die Cast Enclosure IP65 rated** and thus can be mounted near the machine in harsh conditions. It can be ordered as Single, Dual or Four Channel variants, with Three Channel on request (shown in picture: 2 channel). It can be factory set for input from Accelerometer (mV/g) or Velometer (mV/mm/sec) or Non-Contact Eddy Current Pickup (mV/um). It has an **Inbuilt display** per channel that provides easy access to live vibration levels in field. It provides Industry Standard Outputs per Channel such as 4-20 mA, 0-5 V DC, Buffered Output, 1 set OK Relay Contacts, 2 Sets Alarm Contacts and 2 Sets Trip **Relay Contacts with configurable setpoints. MODBUS RTU Output and Cloud (Zoho** IoT) connectivity are available as options.



Specifications for Dual Channel Unit:

Power Input	:	RPS input 90 - 264 VAC, 50/60 Hz, Single Phase OR 127 - 370 VDC
Power Consumption	:	Regulated Power Supply (RPS) outputs 24 VDC to run the MPT; max consumption
Sensor Input	:	Factory set for either Accelerometer or Velometer or Non-Contact Sensor
Number of Channels	:	2 Channels - Independent and Simultaneous
Type of Measurement	:	Overall Vibration in Factory Set Acceleration, Velocity or Displacement - any one
Max Vibration Acceleration	:	10.00 g pk or 7.00 g RMS
Max Vibration Velocity	:	150.0 mm/sec pk or 100.0 mm/sec RMS
Max Vibration Displacement	:	1000 microns pk-pk
High Pass Filter	:	5 Hz +/- 5%
Low Pass Filter	:	2500 Hz +/- 5%
Current Output	:	Galvanic Isolated 4-20 mA output Available per channel at Terminals 4 and 5. Proportional to Full Scale Range. 4 mA at 0 Vibration. 20 mA at Full Scale Vibration. Linear over the range. 250 Ohms Max Resistance
0-5 V DC Output	:	Proportional to Full Scale Range. 0 V DC at 0 Vibration. 5 V DC at Full Scale Vibration. Linear over the range. 1000 Ohms (1KOhms) max resistance
Alarm Relay Contacts	:	Set-point Adjustable between 5% and 100% of Full Scale via Trim-pot within Enclosure. One Independent Relay per channel, 2 sets contacts (NO, C and NC) rated at 5A resistive @ 230V AC Normally de-energized (non fail safe). Automatically resets when the signal level falls below the set point.
Trip Relay Contacts	:	Set-point Adjustable between 5% and 100% of Full Scale via Trim-pot within Enclosure. One Independent Relay per channel, 2 sets contacts (NO, C and NC) rated at 5A resistive @ 230V AC Normally de-energized (non fail safe). Automatically resets when the signal level falls below the set point.
OK Relay Contacts	:	1 set of OK Relay Contact (NO and C) per channel. Independent Reed Relay. Contact Rating 0.25 A resistive @ 28 V DC. When > 5% of the Full Scale signal is attained - the relay gets energized

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Buffered Outputs	:	Available for each channel on Lid via BNC Female. 1:1 Buffered Output of Raw Signal. BNC is protected using Dust Cap
Measurement Accuracy	:	+/- 1% of Full Scale
Display	:	In-Built 3 1/2 Digit 7 Segment Display for Live Vibration Value
Enclosure Weight and Dimensions	:	Al Die Cast IP65, 280 x 230 x 110 mm, 5 kg approx. Also available in Polycarbonate, Explosion Proof, CRCA, FRP, MS or SS enclosures
Operating Temperature	:	0 to 65 Deg C Ambient
Storage Temperature	:	-18 to +65 Deg C Ambient
Humidity	:	95% non-condensing when Lid closed and glands sealed/plugged to ensure IP65 ingress protection
Type Tests	:	Has Passed below Type Tests as per relevant IEC Standards:
Warranty	:	3 years from date of invoice

- Seismic Test
- Dry Heat and Damp Heat
- Electrostatic Discharge
- Radiated Susceptibility
- Conducted Emission
- ESD Surge
- Radiated Emission

About IRD Mechanalysis Limited

IRD Mechanalysis Limited also commonly referred as 'IRD' is a Condition Monitoring Solutions provider to the World since 1955. IRD designs, manufactures and supplies Portable Instrument and Online Systems for Vibration, Speed, Gap, Temperature and Turbine Monitoring. Pre-dominantly famous for Vibration - IRD is also referred to as 'The Vibration People'. IRD also provides associated services for Condition Monitoring such as Training, Consulting, Commissioning, Repairs and Calibration. To know more about IRD - please visit www.irdmech.com

How to Order:

To place an Order - please contact sales@irdmech.com for a Quote or call us on +91-2248972000 (Monday to Saturday, 9 AM to 6 PM IST). Factory Located at IRD Mechanalysis Limited, E8-14, Bhumi World Industrial Park, Thane - 421311, Maharashtra, India

Disclaimer: IRD Mechanalysis Limited reserves the right to change specifications for continuous improvement without prior notice.



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