



IRD7400 Loop Powered Transmitter (Vibration)



Operations in most process plants depend on data from the DCS (Distributed Control System). For Balance of Plant Rotating Machinery, the many vibration signals are often converted to DC 4-20mA and interfaced to the DCS loop power system architecture. The limitation of this approach is that only overall values are trended while the specific machine element faults cannot be analysed without AC time wave form signals. The IRD Mechanalysis model IRD7400 solves this problem with a field mounted loop powered transmitter that also provides the TWF signal for detailed FFT analysis. The IRD7400 also has the flexibility to interface with most sensors and means ISO9000 calibration can be undertaken and sensitivity adjustments made. The model IRD7400 series offers from 2 to 8 channels that can be installed in selected IP65 enclosures or those provided by the Client. When linked to PLCs or the DCS, warning and trip signals may be configured with those systems. Unlike individual loop powered accelerometers, the IRD7400 offers the flexibility of lower cost sensors, various measurements and machine temperature ratings. It is a lower cost and more flexible solution.



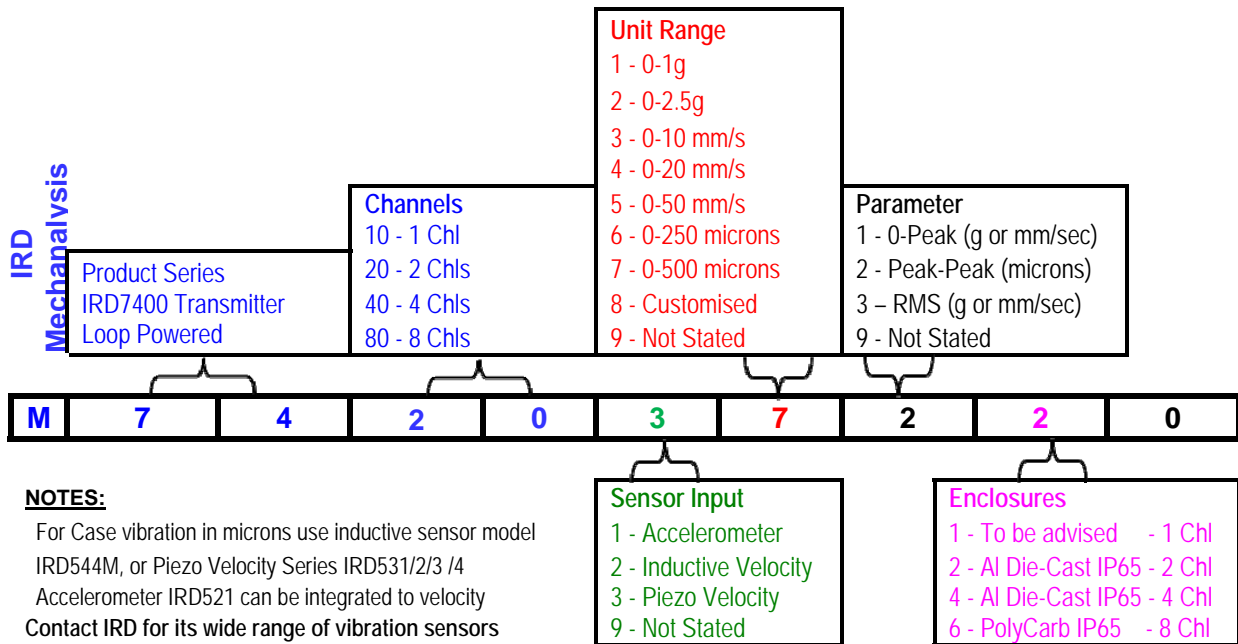
Optional Enclosures from 2 to 8 channels available

Features of the model IRD7400:

1. Loop Powered from the DCS for each channel
2. Multiple Channel vibration signal converter to 4-20mA output per Channel
3. IP65 Enclosure with cap sealed Time Waveform signal output at BNC sockets for FFT analysis
4. Accepts most sensor types and sensitivities
5. Economic, saves additional junction box needed for loop powered accelerometers on site

IRD's Loop Powered Transmitters measure any one of three vibration parameters depending on the sensor selected. Below is a self selection part number chart to enable the user to customise the transmitter to any shaft vibration application. At the time of placing the order, the client must specify the required scale and range or listed part number since the unit is calibrated to Traceable National Standards.

IRD Part Number Selector System



NOTES:

For Case vibration in microns use inductive sensor model IRD544M, or Piezo Velocity Series IRD531/2/3 /4
Accelerometer IRD521 can be integrated to velocity
Contact IRD for its wide range of vibration sensors

SAMPLE QUOTE DESCRIPTION WHEN ORDERING – (Select variables shown in BOLD)	PART NO.
Machinery Transmitter: Loop Powered, model IRD7400 series (4-20mA output); Dual Channel . Suitable for Piezo Velocity Vibration Sensor IRD532 , Range 0-500 microns , Parameter Peak-Peak , with TWF BNC Sockets in AI Die-Cast IP65 enclosure .	M742037220

SPECIFICATION

- Construction:** - AL Die-Cast, Powder Coated, Poly Carbonate or other IP65 Enclosure
- Mounting:** - Direct field mounting
- Channels:** - Two to Eight independent channels as selected
- Signal Input:** - Inductive or Piezo Velocity Sensors for Absolute Casing Vibration
- Accelerometers, wide selection available for Absolute Casing Vibration
- Frequency Response:** - The frequency response is only limited by that of the sensor selected.
- Signal Outputs:**
 - Vibration Signal: - Vibration Analyser Output (BNC connector)
 - DCS / PLC: - 4-20mA on +24V DC Supply line.
- Accuracy:** - ±1% @ full scale
- Power Supply:** - +24V DC from DCS Loop Power
- Environmental:**
 - Operating temp: - 0°C to 50°C ambient
 - Storage temp: - -18°C to 65°C ambient
 - Humidity: - 95% non-condensing
- Weight:** - 0.75 Kg/Unit (2 Chl) 4 Chl AL:5Kg or Poly 4.6Kg
- Dimensions mm:**
 - 2 Channel Die-Cast 160(L)x100(H)x80(D)
 - 4 Channel AL 230(L)x200(W)x110(H)
 - 8 Channel Polycarbonate 300(L)x300(W)x170

IRD Mechanalysis® Ltd continues to be an industry leading provider of Condition Management Solutions. With a heritage of over 60 years experience in machinery vibration and associated technologies, IRD designs, manufactures and supports proven instrumentation suitable for harsh industrial environments.

The **Vibration People** of IRD Mechanalysis can be contacted at the following branches or your local distributor:

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