



PRODUCT INFORMATION

Mechanalysis Signal Transmitter (Vibration) Series Model MIL7200

The dual channel Mechanalysis Signal Transmitter (MST) converts general rotating machinery vibration measurements to industry standard 4-20mA isolated (galvanic). It also simultaneously provides the sensor signal (Analyzer Time Waveform) output at a BNC socket for undertaking vibration analysis of the raw signal as a standard feature. It's a low cost solution for process management systems. Proven for continuous reliable operation in a tough industrial environment, the data is transmitted to a PLC (programmable logic controller), Central Control Room or local panel or DCS for trending and display. The MST can be field mounted near the measurement point in a suitable cabinet or in a control room panel.



Features of the MST:

1. Dual Channel vibration signal converter to 4-20mA
2. 4-20mA DC Isolated (Galvanic) output per Channel
3. RS485/Modbus options available
4. Independent and redundant power supply available for up to eight modules
5. DIN Rail Mounted allowing multiple systems assembly
6. Analyser Time Waveform signal output at BNC socket for analysis
7. Accepts acceleration (g) or velocity (mm/sec) or displacement (microns)
8. Accepts most sensor types and sensitivities suited to new & retrofit systems
9. Lower maintenance costs; damaged cables do not mean replacement of the sensor
10. Annual ISO9000 calibration made practical; by matching sensor's changing sensitivity

The design allows the sensor sensitivity to be matched with the MST in the event that its calibration and output changes as the sensor ages. By separating the 4-20mA conversion from the sensor, a wider range of sensor types and temperature applications can be accommodated. Machine temperatures can be as high as 121^o C compared to loop power accelerometers that are restricted to <100^oC.

The model MIL7200 series of Dual Channel Mechanalysis Data Transmitter (MDT), measures any one of three vibration parameters depending on the sensor selected. These are summarised against the part numbers given in the table below. At the time of placing the order, the client must specify the required scale and range or listed part number.

Part Nos.	FUNCTION	Chl.	Display	Sensors	Units	Ranges
M72111-2-3	Vibration	2	None	Velocity (MIL544M)	microns pk-pk	0-100, 200, 300 microns
M72116-7-8	Vibration	2		Velocity (MIL544M)	mm/sec pk	0-10, 20, 30 mm/sec
M72121-2-3	Vibration	2		Accelerometer (ICP)	mm/sec pk	0-10, 20, 30 mm/sec
M72126-7-8	Vibration	2		Accelerometer (ICP)	g	0-1, 5, 10 g
M72110	Power Supply	16		Not applicable	VAC	110 or 240VAC 50/60Hz

When associated with the widely acclaimed model MIL544M velocity sensor, the MST is ideal for most general machinery vibration monitoring and protection applications. It converts the vibration velocity input signal into a proportional DC current output. The transmitter's output current is 4 mA DC isolated (Galvanic) (when input vibration signal corresponds to zero) and 20 mA DC (when input vibration signal corresponds to full scale) with an accuracy of ± 1% of full scale range.

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SPECIFICATION

Construction:	- ABS material
Mounting:	- DIN Rail mounted
Channels:	- Two
Signal Input:	- MIL544M Velocity Sensor - Accelerometer (ICP)
Frequency Range:	- 10–1000 Hz (600-60,000 CPM) for MIL544M Velocity Sensor - 5 -2500 Hz (300 -150,000 CPM) for Accelerometer (ICP)
Display:	- Blind (individual digital panel meters are optional)
Signal Outputs:	
Vibration Signal:	- Vibration Analyser Output (BNC connector) at front panel
Recorder / DCS / PLC:	- 4-20 mA isolated (Galvanic) with max load of 300 ohms.
Communications:	
Optional:	- RS485 or ModBus
Accuracy:	- $\pm 1\%$ @ full scale
Power Supply Module:	- Powers up to 8 model MIL7200. DIN rail mounted modules Input 110 or 240VAC 50/60Hz, Single Phase, Output + 24VDC, 500mA
Environmental:	
Operating temp:	- 0°C to 50°C ambient
Storage temp:	- -18°C to 65°C ambient
Humidity:	- 95% non-condensing
Weight:	- 0.45 Kg/Unit
Dimensions:	- 110mm (L) x 70mm (W) x 75mm (H)

Mechanalysis (India) Ltd. continuously improves products; it therefore retains the right to change the above specification without notice

System Architecture - Mechanalysis Signal Transmitter (Vibration) Series model MIL7200

