



## PRODUCT SPECIFICATION

### MIL1224 Single Channel Machine Protection Monitor (Lower Speed Machinery)

Part Number M12241

The Mechanalysis model MIL1224 vibration monitor is ideal for protecting lower speed machinery (600-1,000rpm) especially those with plain bearings.

The model MIL1224 is an economic solution for individual machines, often remote where the consequence of premature failure is unacceptable. Machines are usually identified from a vibration based condition monitoring programme e.g. blowers, fans, pumps etc require warning of impending problems thereby ensuring plant uptime.

The MIL1224 vibration monitor is one of industry's most proven, low cost on-line continuous protection monitor with a track record of 35 years. Deliveries of the system have exceeded 2000 units; they have been continuously improved and modernised.



The MIL1224 Monitor provides readout and alarm functions in Displacement (microns Pk-Pk) using the industry standard MIL544M velocity sensor. Supplied in two full-scale ranges of 0-250 or 0-750 microns Pk-Pk, these are field selectable. Shutdown alarm setting is adjustable and indicated on the amplitude meter. Warning alarm set point is 67% of the Shutdown Set Point. Warning Alarm resets automatically; Shutdown Alarm can be reset from its panel button. Individual warning and shutdown front panel lamps indicate alarm status; relays can activate external alarms. The front panel output connector facilitates analysis and in-situ balancing using any portable vibration analyzer/dynamic balancer instruments.

The MIL1224 monitor is housed in a rugged mild steel enclosure for panel or surface mounting. All external connections are made to barrier terminal strips inside the rear access panel.

The monitor is supplied as an Engineered System complete with sensor and mounting pad, mounting hardware and cable assembly for easy on-site installation. For situations where sensor machine site to the MIL1224 monitor distance exceeds 7.6m then a customised solution is required. The maximum distance between sensor and protection monitor is 330m

#### ENGINEERED SYSTEM SUPPLY - PART NUMBER M12240

PART NO.	ITEM	Qty
M12241	Single Channel Vibration Monitors Model MIL1224, input from MIL544M Velocity sensor, 0-250 and 0-750 Microns Pk-Pk Displacement Readout, 4-20 mA non-isolated output. Engineered System with Standard Accessories:	1
M12299	Mounting hardware	1
M97120	Vibration Sensor Model MIL544M	1
M60015	Mounting Pad Mild Steel for MIL544M Sensor	1
M60012	Cable 7.6m (25ft) 2 Core with steel conduit shielded FRLS coated with 2 pin female connector at one end and spade lugs at other end	1
M12249	Manual Operating for Models MIL1224 / MIL1225	1



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### SPECIFICATION – MODEL MIL1224

<b>Inputs:</b>	- From MIL544M inductive velocity sensor
<b>Frequency Range:</b>	- 5 Hz – 2,500 Hz
<b>Amplitude Ranges:</b>	- 0-250 or 0-750 microns Pk to Pk field selectable - For bulk orders special ranges can be provided
<b>Shutdown Alarm:</b>	- Adjustable 10% - 100% full scale S P D T contacts rated 5 Amp resistive @ 230 VAC
<b>Warning Alarm:</b>	- 67% of shutdown alarm level - SPDT relay has same contact rating as shutdown relay
<b>Alarm Time Delay:</b>	- Integrating type, adjustable over range of 3-10 seconds for step signal increases from 30% to 110% of alarm setpoint
<b>Alarm Reset:</b>	- Warning alarm automatically resets - Shutdown alarm is manual reset from front panel
<b>Analyzer Output:</b>	- Front connector for use with analyzer or oscilloscope
<b>Recorder Output:</b>	- 460 mV DC w/4,600 ohm load @ full scale
<b>Start-up Control:</b>	- Deactivates alarm relays when user starter switch opens
<b>Display:</b>	- Moving coil Analog meter
<b>Power Supply:</b>	- Field selectable: 115-230 VAC ±10% 50/60 Hz, 20 Watts
<b>Terminations:</b>	- Covered, rear access # 10 barrier terminal strips - Two conduit knockouts
<b>Enclosure:</b>	- Powder coated mild steel, gasket sealed door & covers
<b>Environmental</b>	
Operating temp:	- 0°C to 50°C
Storage temp.:	- -18°C to + 65°C
Humidity	- 95% non condensing
<b>Weight &amp; Dimensions</b>	
Monitor	- 3.2Kg
Packaged	- 4.8Kg
Dimensions:	- 108mm (W) x 210mm (H) x 208mm (H)

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

The Vibration People of Mechanalysis (India) Ltd can be contacted at any one of the following Branches

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