

Vibration Monitor - 8000



Vibration Monitor VM-8000 is a continuous online monitoring system suitable for condition monitoring and machinery protection applications. The system is 24V DC operated and industry standard 6U/24T rack mountable. The system measures 10-channel Non-Contact / Casing vibration. The system has dedicated 5 digit 7 segment displays for displaying vibration values. Also measured parameters will be communicated to remote terminal via MODBUS RTU on RS485. The system has 8 programmable relays for alarm and trip. Each channel has tricolor LED indication for indicating OK, DANGER and ALERT status.



Applications

- Steam turbines.
- Air Handling equipment.
- Compressors, pumps, chillers and air-conditioning plants.
- Sub-station application for transformers and reactors.
- Generator sets.
- Portable or stationary generator sets.
- Motors, submersible pumps.
- Machine tools.
- Turbo generator sets.

Features:

- 10-Channel Non Contact / Casing Vibration Measurement.
- 5 digit 7-seg display for displaying Vibration data.
- Programmability of all settings through Keypad.
- One tri color LED per channel for indicating OK/ ALERT/DANGER status.
- RS485 serial port with MODBUS RTU protocol.
- 32 units can be connected in RS485 multi drop network.
- Unit address and baud rate programmable through key pad.
- All Settings stored in Non-Volatile memory to prevent any data loss.
- 8 Relays for alarm and trip.
- Operating power supply range from 24V DC \pm 10%.
- Built in power supplies necessary for Proximitor / accelerometer power.



Specification		
Casing Measurement	Input	Piezo-Electric Accelerometer
	Number of channels	10
	Range	Acceleration : 0 - 200m/s ² true RMS Velocity : 0 - 200mm/s true RMS
	Accuracy	5% ±1Digit
	Display	7-Seg 5x5 digit Display.
	Freq Range(±3db)	10Hz- 5KHz
	System Cable Length	5 meter
	Power supply for Transducer	Built-in 2mA constant current source.
Non Contact Measurement	Input	Proximity Transducer
	Number of channels	10
	Range	+40 mils
	Sensitivity	7.87 V/mm (200mV/mil).
	Freq Range(±3db)	DC- 10KHz
	System Cable Length	5 meter
	Power supply for Transducer	Built-in -24VDC.
Accelerometer 	Accelerometer (ICP based), Sensitivity 100mV/g, Range ±50g, Frequency Range(3db) 2Hz – 10KHz, Weight 90 Grams, Mounting Hardware M6X1 Stud	
Proximity Sensor 	Standard Calibration Target: AISI4140, Linear Range: 0.25mm to 2.25mm from sensor tip, Scale Factor: 7.87 V/mm (200mV/mil), Frequency Response: Dc to 10 kHz (-3 dB),Power: -24 V ±10 %.	
Buffered Transducer Outputs	The front of monitor has one coaxial connector for each channel.	
7-Segment Display / Key Pad	Display 10-Channel Measured vibration level And Alarm Limits Set points.Parameter setting through keypad.	
LED Indication	Three LEDs per channel for Ok / Alert / Danger, One Green LED for Communication, One Red LED for Power On.	
Relay Contact	Eight Relay contact for Alert and Danger Alarm, Contact Rating AC 230V / 5.0A	
Power Consumption	10 Watts, Typical.	
Dimension.	Overall - 160(W) x 270(H) x 180(D). Cutout - 127(W) x 270(H) x 180(D).	
Environment Condition	10°C to 50°C for Instrument and 0°C to 100°C for sensor	

ORDERING INFORMATION

VM8000	Ax	BxCx	DE
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Ax. → Total Number of Channels
Bx. → Number of Non Contact Channels
Cx. → Number of Casing Vibration Channels
DE. → Communication / Retransmission Output Selection

EX: VM8000-10-0505-10

Ax. Total Number of Channels

Example: 10 → Five Channel

Bx. Number of Non Contact Channels

Example: 05 → Five Channels

Cx. Number of Casing Vibration Channels

Example: 05 → Five Channels

D. Communication Selection

Example: 0 → None
1 → RS485

E. Retransmission Output.

Example: 0 → None
1 → 4-20mA Current Output