ROGA Instruments VM25 Vibration Meter Owner's Manual

Contents

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ROGA Instruments VM25 Vibration Meter

Product Usage Instructions

Powering the Vibration Meter
Insert 3 x LR03 / HR03 / AAA batteries into the battery compartment or connect an external power supply of 8 to 12 VDC.

Connecting Sensors
Use the provided accelerometer KS82L with the spiral cable to connect to the input channel of the device.

Taking Measurements
Turn on the Vibration Meter and select the appropriate measurement function. Follow the specific instructions for each type of measurement you wish to perform.

Data Output
You can output data via the headphone output or the USB 2.0 FS connector for further analysis or storage.

Application

- Machine condition monitoring to ISO 20816-
- Roller bearing monitoring to VDI 3832 etc.
- General vibration measurement in laboratory and industry
- Quality control
- Optical rotation speed measurement
- Non-contact temperature measurement

Properties

- Measurement of vibration acceleration, velocity, and displacement
- True RMS, peak value, and crest factor
- Precision shear-type accelerometer with magnetic base
- Automatic detection of measuring points via the sensor base with electronic VMID measuring points
- Graphical trend display
- Spectral analysis (FFT) for acceleration and velocity
- Built-in infrared thermometer
- Built-in non-contact optical rpm sensor with laser pointer
- Memory for 16000 measurements
- USB interface
- PC software for measuring point management to MIMOSA convention (ISO 13373-1) and measuring data archiving
- Headphone output
- Brilliant, power-saving colored OLED display
- Economic AAA batteries or accumulators
- Pocket-sized

Technical Data

Measurement functions

Measurands	Vibration acceleration	
Vibration velocity/severity		
Vibration displacement		
Overall values	True RMS value	
True pak value		
Crest factor		
K(t) Bearing Diagnosis Coefficient		
Measuring range acceleration	0.1 to 240	m/s²
Measuring range velocity	0.1 to 1000	mm/s
Measuring range displacement	0.01 to 60000	µm
Rotary speed measurement	Optical; built in	
RPM range	1 to 9999	min-1
Accuracy	±5 (±2 digits)	%
ADC resolution	24	Bit
Vibration trend	Graphical history of the saved vibration values	
Bearing Diagnosis Coefficient K(t)	1 – 10 kHz; with memory for 1600 rms/peak start values	
Lower frequency limit acceleration	0,1; 0,2; 3; 1000	Hz
Lower frequency limit velocity	2; 10	Hz
Upper frequency limit acceleration	1000; 10000	Hz
Upper frequency limit velocity	1000	Hz
Upper frequency limit displacement	200	Hz
Frequency analysis	FFT; 125 points; acceleration or velocity	
10 frequency ranges from 11.5 to 11712 Hz		
Indication	OLED; RGB; 128 x 160 pixels	

Connectors

Input channels	1
Input signals	Low power IEPE
Input connector	Socket Binder 711; 3 pins
Constant current mA	1.9 to 2.9
Output connector 3.5 mm audio adapter	Headphone output; Binder 712; 8 pins; with
Digital interfaces et; Binder 712; 8 poles	USB 2.0 FS; CGC mode; ASCII command s

Power Supply

Battery	3 x LR03 / HR03 / AAA	
Battery operating time	8 to 12	h
External supply voltage	5 (USB)	VDC

Case Data

Dimensions without connectors	125 x 65 x 27 (H x W x D)	mm
Case material	ABS	
Weight	140 (without sensor)	g
Operating temperature range	-20 to 60 (95 % rel. humidity with	ut condensation) °C

Scope of delivery
Accelerometer KS82L with spiral cable USB cable VMID measuring point sample Headphone adapter Carrying case

Optional accessories
VMID measuring points sensor probe VM2x-T PC software VM2x Measurement Data Base Upon request, we offer an accredited calibration to DIN EN ISO/IEC 17025:2018.

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Frequently Asked Questions

Q: Can I use rechargeable batteries with the Vibration Meter?
A: Yes, you can use rechargeable LR03 / HR03 / AAA batteries with the device.

Q: Is there a warranty for this product?
A: Please contact ROGA-Instruments at the provided phone number or email for information regarding warranty and support.

Q: Can I purchase additional accessories for the Vibration Meter?
A: Yes, you can purchase optional accessories such as VMID measuring points sensor probe, VM2x-T PC software, and VM2x Measurement Data Base. Contact ROGA-Instruments for more details.

Documents / Resources

	ROGA Instruments VM25 Vibration Meter [pdf] Owner's Manual VM25, VM25 Vibration Meter, Vibration Meter, Meter

References

- Computer Instruments | Home
- User Manual