

VM25 Vibration Meter



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/s ²
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	
IEPE constant current	1.9 to 2.9	mA
Output connector	Head phone output; Binder 712; 8 pins; with 3.5 mm audio adapter	
Digital interfaces	USB 2.0 FS; CGC mode; ASCII command set; Binder 712; 8 poles	

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 without 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.