



VIBER X3™



VIBER X3™ is designed for maintenance/repairer, and operators personnel.

It is an excellent tool, for basic condition monitoring checks, easy to use and reliable for status analyse.

The **VIBER X3™** instrument has the following features:

- ❖ Accurate measurements for 3 selectable frequency ranges.
- ❖ Real-time measurement of the total vibration level and the Bearing Condition (BC), shown simultaneously.
- ❖ Headphone set with volume control and high pass filter for bearing noise detection.
- ❖ Listening to bearing sound while comparing the displayed BC value.
- ❖ Measurement units and measurement presentation may be selected by the user from the following list:
 - g (RMS, Peak or P-P)
 - mm/sec (RMS, Peak or P-P)
 - μm (RMS, Peak or P-P)
 - inch/sec (RMS, Peak or P-P)
 - mils (RMS, Peak or P-P)
- ❖ Bearing Condition measurements in a wide frequency range (0, 5 - 30 kHz).
- ❖ Built-in infrared temperature sensor, units in $^{\circ}\text{C}$ or $^{\circ}\text{F}$.
- ❖ Bar indicator shows measurement stability.
- ❖ Fast and easy fault analysis displaying the largest amplitude peak frequency in CPM or Hz in main screen display.
- ❖ Large dynamic range of the vibration signal (up to 50 g).
- ❖ Low power consumption.
- ❖ High performance accelerometer.
- ❖ Clear vibration, temperature and danger alarms by red and yellow colour LED's.
- ❖ Easy to understand and operate.
- ❖ Fast battery charging capability using an external charger, provided in the delivery.
- ❖ Advanced technology with DSP processor.
- ❖ Display with backlight.
- ❖ Several languages.
- ❖ Adjustable Auto-shut off for energy saving.
- ❖ Dust and waterproof, for rough use (IP 65).

Technical data

Input amplitude range	Vibration	50 g RMS	
	Bearing condition	5 gBC	
Frequency range	Vibration	2 – 1600 Hz 4 – 3200 Hz 10 -1000 Hz	Note 1 Note 2
	Bearing condition	Typically 1.5 to 20 KHz Ext. 0.5 to 30 kHz (-3dB)	Note 2
Temperature range	-20 to 140 °C		
Vibration units	g, mm/s, µm, in/s, mils		Note 3
Vibration, presentation of amplitude	RMS, Peak, Peak-Peak		Note 3
Frequency of the highest peak	Frequency range	Highest peak range	Note 4
	2 – 1600 Hz	4 Hz – 1 KHz	
	4 – 3200 Hz	8 Hz – 1 KHz	
	10 -1000 Hz	10 Hz – 1 KHz	
Sound frequency Filter connected	10 Hz – 10 KHz	+26 dB to -66.5 dB	
	500 Hz – 10 KHz	+26 dB to -66.5 dB	
Accuracy	Vibration	± 3%	Note 5a
	Bearing condition	± 2 %	Note 5b
	Frequency	± 0.5 Hz	
	Temperature	± 1 °C	Note 5c
Vibration transducer	Accelerometer	Standard 100 mV/g± 5%	
Temperature sensor	Built-in infrared sensor		Note 6
Battery	Rechargeable NiMh	3 X 1.2V cells @ 2700 mAh	
Battery life time	Min.24 hours for a full charged battery pack.		Note 7
External charger	7.5 V regulated @ 1000 mA		
LCD display	B&W 64 X 100 pixels with background light		
Power consumption	Running	100 mA (average)	Note 8
	Sleep mode	Less than 20µA	
Enclosure protection	IP 65		
Operating temp. Range	0 to 80 °C		Note 9
Weight	480 g		Note 10
Dynamic headphones	32 Ohm		
Frequency range	20 – 20 000 Hz		
Max	106 dB	+/- 3dB @ 1 kHz	
Volume control	Embedded		

Note 1. User selectable, for non-integrating measurement units
 Note 2. Hardware high pass filter with -3dB attenuation at 475Hz.
 Note 3. User selectable
 Note 4. User selectable unit between Hz and CPM.
 Note 5a. Full scale is 50g for acceleration, 200 mm/s for velocity and 3000µm for displacement.
 Less than -3dB attenuation for lower frequencies.
 Note 5b. Over 0.03 gBC
 Note 5c. Emissivity factor must be set in accordance with the target surface

Note 6. Distance to target between 100mm and 200mm.
 Note 7. Battery life depends on backlight and volume level in the headphone. Backlight adds about 40mA and the maximum sound volume up to 150mA.
 Note 8. Backlight and sound off. The power consumption is directly related with the active measurement. Temperature measurement consumes more power than vibration measurement.
 Note 9. Storage temperature from -20°C to 90°C.
 Note 10 Instrument including battery and transducer.



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