

VIBRATION METER

INSTRUCTION MANUAL

FUNCTION AND APPLICATION

Vibration meter is a kind of integrated, pocket-size instrument for vibration measurement of rotating machinery. With the capability to measure the displacement, velocity and acceleration of the objects easily, the meter can be applied in industry departments such as electric power, petroleum, chemical engineering and metallurgy to meet different demands.

SPECIFICATION

Vibration measurement range

Displacement: 0~1999 μ m (peak to peak)

Velocity: 0~199.9mm/s (rms)

Acceleration: 0~199.9m/s²

Frequency range

Displacement: 10~200Hz

Velocity: 10~500Hz

Acceleration: 10~1000Hz

Linearity and Accuracy

Displacement: 0~20 μ m: $\pm 10\%$ >20 μ m: $\pm 5\%$

Velocity: 0~2.0mm/s: $\pm 10\%$ >2.0mm/s: $\pm 5\%$

Acceleration: 0~2.0 m/s²: $\pm 10\%$ >2.0 m/s²: $\pm 5\%$

Display: 3 1/2 digit LCD

Low voltage indication: If battery voltage <5.5V, a battery mark appears on the LCD, then replace the battery with new one.

Hold function: the displayed vibration value is hold and kept for one minute after the MEAS button is released

Power: 6F22 batter (9V)

Battery life: approx. 25h under continuous use

Ambient conditions operation

Temperature: 0~40°C

Humidity: $\leq 80\%$

Atmosphere pressure: 75~106kpa

Dimension: 185(H)× 68(W) ×30(D) mm

Weight: 230g (including battery)

OPERATION

Loading battery

Open the battery compartment lid, load a 6F22 battery in the battery compartment with correct polarity, and close the lid.

Checking battery voltage

Press the MEA button and observe the display. If a battery mark appears on the display (left side), replace the battery with new one. If not, the meter is ready for measuring.

Setting measurement mode

Select the acceleration, velocity or displacement measurement mode with the mode selector. The arrow on the right of the display indicates the selected mode.

Measurement

Force to press the attachment (probe) at right angle to the object surface.

Press the MEAS button (power on) and keep the button depressed, the vibration value is now indicated on the display. By releasing the MEAS button, vibration value at that moment is held on the display. Now you can detach the probe from the object and read the displayed value.

Press MEAS button again to reset the hold function and repeat measurement.

Notice: the attachment should be pressed at right angle to the object surface. If pressed sideways, accurate measurement cannot be made.

Handling and storage

This instrument should not be subjected to strong magnetic field, causticity gas and shocks.

Remove the battery when do not to use this instrument for a long time, otherwise electrolyte may leak and cause damage.

FAILURE AND CAUSE

Power on failure: battery does not load properly

Abnormal display: the mode selector fail to function or is not on the right position