

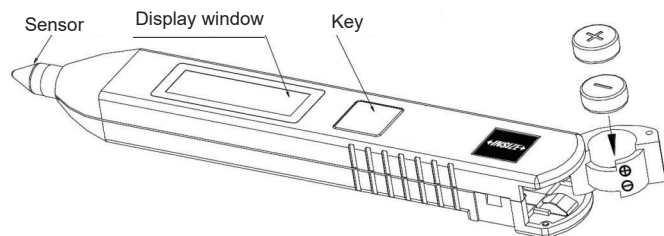


**9720-199
VIBRATION PEN**



This machine is a portable vibration pen. It can be used to measure the vibration velocity of 0.1~199.9mm/s, Frequency range: 10Hz~1KHz. you can control this mechanical by only one button, Lightweight portable design, more efficient and faster to get accurate test results.

1 Structural diagram



2 The main features

9720-199:

Dedicated vibration velocity measurement

1. Small, light weight, easy to carry
2. Simple key control, simple operation
3. Automation shutdown function, save electricity

3 Usage

Operating Principle:

When using the device, press the sensor against the part under test, and keep the vibration probe perpendicular to the surface as much as possible. The sensor must be in close contact with the measured object with a force of approximately 5~20 N to ensure the vibration signal is transmitted properly. Select measurement points on bearings, bearing supports, or other structural components that respond clearly to vibration forces and reflect the overall vibration characteristics of the machine. To fully characterize the vibration at each location, take measurements in three mutually perpendicular directions. This device does not have a built-in data memory function, so test results must be recorded manually.

Method of use:

Press [Key] to power on the device; it will enter vibration velocity measurement mode. Press the sensor against the test area as described in the usage principle.

The vibration pen will start measuring. When the key is released, the liquid crystal display will show "HOLD". The measured value just before key release will be held for approximately 40 seconds, after which the device will automatically shut down.

For the 9720-199: If the measured value exceeds the measurement range, an over-range indicator  will appear on the screen.

4 Technical parameters

1. Measured parameter: Vibration speed
2. Measuring range: (0.1~199.9) mm/s (RMS)
3. Frequency range: 10 Hz~1 kHz
4. Relative error:
 - Reference sensitivity uncertainty: $\leq 2\%$
 - Amplitude linearity error: $\pm 5\%$
 - Frequency response error: $\pm 5\%$
5. Display mode: $3\frac{1}{2}$ -digit LCD display, update interval approx. 1 s
6. Power supply: 2 × LR44 button batteries
7. Battery life: Continuous operation time: approx. 10 hours
8. Working environment:
 - Operating temperature: 0 °C to 40 °C
 - Relative humidity: < 85% (non-condensing)
9. Overall dimensions: 150 mm × 22 mm × 18 mm
10. Weight: Approx. 55 g (including batteries)

5 Maintenance

1. This vibration pen is a precision instrument. Avoid collision, moisture, strong electromagnetic fields, oil, and dust at all times.
2. When replacing the battery, align the positive (+) terminal with the "+" marking inside the compartment.
3. Remove the battery if the instrument will not be used for an extended period.
4. Do not disassemble the vibration measuring pen, as this may damage the internal circuitry.
5. Alcohol and solvents can damage the casing and display. Clean only with a slightly water-dampened cotton swab.