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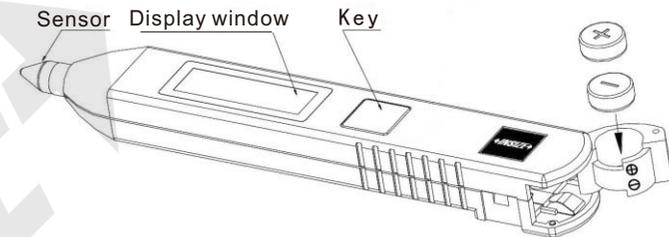
## 9720-199 VIBRATION PEN OPERATING INSTRUCTION





This machine is a portable vibration pen. It can be used to measure the vibration velocity of 0.1~199.9mm, 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 : measurement speed
- three parameters:
  - small, light weight, easy to carry;
  - simple key control, simple operation;
  - automation shutdown function, save electricity.

**3 Use**

using the principle:  
 when using , the sensor should be supported against the part under test and the vibration measuring pen should be kept perpendicular to the surface under test as far as possible; The sensor should be in close contact with the surface of the measured object, with a pressure of about 5-20N, so that the vibration standard of the measured object can be transmitted to the sensor; Measurement points shall be selected on bearings, bearing support or other structural components that have a clear response to the force and can represent the overall vibration characteristics of the machine; In order to determine the vibration characteristics of each measured position, it is necessary to measure in three mutually perpendicular directions; This machine has no data memory function. If you want to keep the test data, you need to make a written record.

Method of use:

Press [Key] to start the machine, and the machine will enter the speed measurement state.

Press the sensor against the measured area according to the usage principle. press [key 1] and the vibration pen will start to measure. If the key is released, the liquid crystal display will be "HOLD". The measurement value at the moment before the key is released can be retained for about 40 seconds, and then it will be automatically shut down.

For 9720-199, When the measured value is beyond the measurement range, 1 will appear on the screen.

#### 4 Performance criteria

9720-199 Performance parameters:

- 1、 Measuring parameters: speed
- 2、 Measuring range: (0.1-199.9)mm (Valid values)
- 3、 Frequency range: 10Hz-1KHz
- 4、 Relating error: The reference sensitivity uncertainty  $\leq 2\%$   
Amplitude linear relative error:  $\pm 5\%$   
Relative error of frequency response:  $\pm 5\%$
- 5、 Display mode : 3-bit semi-liquid crystal display, display period is about 1S
- 6、 Power supply: 2 - button battery Lr44
- 7、 Battery life: Continuous fight for about 10 hours
- 8、 Working environment: Operating temperature 0°C to 40 °C;  
Relative humidity < 85%
- 9、 Overall dimensions: 150mm\*22mm\*18mm
- 10、 The weight: About 55g (including two batteries)

The technical performance of the instrument conforms to the requirements of the vibration standard of sinusoidal excitation in the national standard GB/T13823.3 and the requirements of the national metrological verification regulation JJG 676.

#### 5 Maintenance

1、 The vibration pen belongs to the precision instrument, should strictly avoid collision, moisture, strong electromagnetic field, oil and dust.

2、 When replacing the battery, please note that the positive electrode of the battery is oriented toward " ⊕ " ;

3、 If not in use for a long time, remove the battery;

4、 Do not disassemble the vibration measuring pen to avoid damage to the internal circuit.

5、 Alcohol and diluent corrode the casing and Windows. When cleaning, dip in with cotton wire take a small amount of water close wipe.