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MODEL: GM63B

Vibration Meter Instruction Manual



Standard: Q/GMY 002-2016
Version: GM63B-EN-03

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Introduction

This product adopts piezoelectric effect of artificial polarized ceramic for design. It is suitable for monitoring of all kinds of vibrating mechanical facility, specially the vibration measurement of rotating and reciprocating machinery. The unit can measure acceleration, velocity and displacement, which is widely used in mechanical manufacture, electric power metallurgy and general aviation etc. Field.

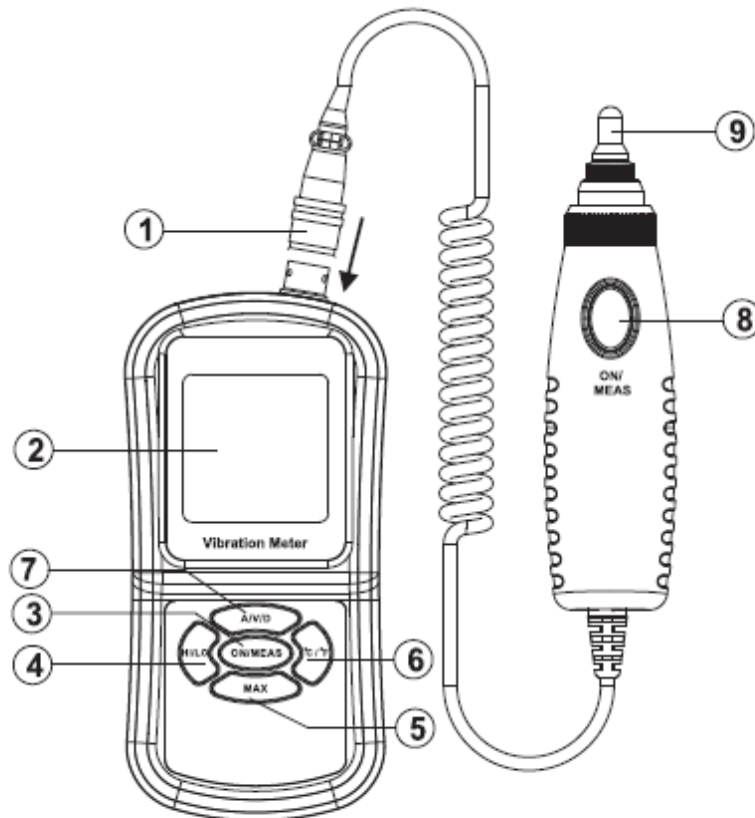
Features

- LCD display measurement result and conditions directly
- Measures acceleration (m/s^2 peak), velocity (mm/s rms), and displacement (mm p-p)
- Selective vibration characteristic
- Uses hi-sense of vibration sensor, measuring accurately
- Equipped two probes (S and L) to adapt the different measurement requirement
- Provides a magnetic probe to fit the condition uneasy hold on by hand
- Low battery indication
- Auto turn off function
- LCD back light function
- Maximum value hold function
- Temperature unit C° / F° selection

Specifications

| Technical parameter | Technical specification |
|---|---|
| Vibration pickup | Piezoelectric ceramic accelerometer (shear-type) |
| Measurement range of acceleration | 0.1~199.9 m/s^2 peak |
| Measurement range of velocity | 0.1~199.9mm/s rms |
| Measurement range of displacement | 0.001~1.999mm p-p Velocity and displacement range is limited by acceleration 199.9 m/s^2 |
| Measurement accuracy | $\pm 5\% \pm 2$ digits |
| Measurement frequency range of acceleration | 10Hz~1KHz (LO) 1KHz~15KHz (HI) |
| Measurement frequency range of velocity | 10Hz~1KHz (LO) |
| Measurement frequency range of displacement | 10Hz~1KHz (LO) |
| Displays update cycle | 1 seconds |
| LCD display | 3 1/2 digits display AC output 2 V peak (display full scale) |
| Single output | Load impedance 10K Ω or more earphones can be connected |
| Power supply | 9V battery |
| Stand-by current | $\leq 15 \mu A$ |
| Operating current | $\leq 25mA$ |
| Battery life | 20 H continuous use |
| Auto power off function | Turns off automatically after 60 seconds |
| LCD backlight function | 7 seconds |
| Operating temperature range | $0 \sim 40^{\circ}C$ |
| Operating humidity range | 80~90%RH |
| Low battery indication | 6.4V \pm 0.2V |
| Dimensions | 72x35x145mm |

Diagram of the unit



1. Handle connector (with directionality)
2. LCD display.
3. **ON/MEAS** ON/Off / measure button, press for turn on.
In measuring procedure, press for measuring, release for hold the reading.
4. **HI/LO** Frequency character selection bottom.
(For acceleration)
5. **MAX** Maximum value locks botton.
6. **°C/°F** Temperature unit interchange botton.
7. **A/V/D** Measuring mode (Acceleration/ Velocity/ Displacement) select bottom.
8. Handle on/off/ measure button, press for turn on. In measuring procedure, press for measuring, release for hold the reading.
9. Detector tip (Selective between "S"/"L" and Magnetic probe).



Note:

Above key function descriptions just are simple introduction, for details please read operation instructions part in this manual.

LCD display



- 1). : Battery mark shows current residual battery power.
- 2). Dynamic bar graph display measuring Icon.
- 3). **LO** : low frequency symbol. (10Hz~ 1Hz)
- 4). Measured value display.
- 5). **MAX** : The maximum value.
- 6). Temperature and maximum value display.
- 7). $^{\circ}E$: Temperature unit display, “ $^{\circ}F$ ” for the Celsius scale, “ $^{\circ}C$ ” for the Fahrenheit scale.
- 8). mm/s^2 : When measuring acceleration, LCD will display acceleration unit “ m/s^2 ”
When measuring velocity, LCD will display velocity unit “ mm/s ”
When measuring displacement, LCD will display displacement unit “ mm ”
- 9). **1KHz** : 1kHz indication.
- 10). **HI** : High frequency symbol. (1kHz~ 15kHz)
- 11). The symbol of the range of the measuring value.
- 12). : Backlight icon, the back light will be active for 7 seconds upon the button operations.

2. Operation instructions:

Battery installment

- a. Grip tightly the unit body with your left hand; hold down the battery door with your right hand thumb to open it according to the arrow referring direction:
- b. Insert the 9V battery into battery compartment, note the battery polarity, and then close the battery door, as shown in following figure:

