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Manual Optical Tachometer PCE DT62



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USER INSTRUCTION

WARNING!!

To avoid injuries to animal or human eyes, Please do not point the laser beam in eyes or look directly into beam. If the instrument is not to be used for any extended period, Please remove battery.

1. FEATURE

*This Digital Tachometer provides fast and accurate Non-contact RPM and surface speed measurements of rotating objects.

*This tachometer is used the CPU technique, photoelectrical technique, and junction laser technique for one instrument combined PHOTO TACH. (RPM&REV)

*Two test modes: rotate speed mode (unit: RPM) & count mode (unit: REV)

*Wide measure range and high resolution.

*High visible digital LCD and Backlight display.

*Built-in memory recalls Max Min and Last value stored.

2. SPECIFICATIONS

Display:	5 digits LCD display.
Accuracy:	$\pm(0.05\%+1 \text{ digits})$.
RPM test rang:	2 to 99,999RPM
Count rang:	1 to 99,999 REV.
Resolution:	0.1 RPM (2 to 999.9 RPM). 1 RPM. (over 1000 RPM)
Sampling time:	0.5 sec. (over 120 RPM)
Detecting distance:	50mm to 500 mm.
Time base:	Quartz crystal
Power consumption:	Approx 45mA
Power Supply:	9V Battery or 6V Exterior DC.
Operation temp:	0°Cto50°C.
Dimension:	160x58x39mm.
Weight:	151g.

3. MEASURING MANUAL

Apply a reflective mark to the object being measured. Depress the "MEAS" button and align the visible light beam with the applied target. Verify that monitor indicator lights when the target aligns with the beam. Then the current mode is the last time mode. If you need to change the mode, release the "MEAS" button and press the "MODE" button before the instrument auto power off(released the "MEAS" button this instrument will auto power off in 10 sec) will converted between "RPM" and "REV"(revolution). Selected the mode of you need, depress the "MEAS" start measures.

Press the "MEM" button can reading the Max, Min and Last value of last time measuring.

4. MEASURING CONSIDERTATION

*Reflective mark

Cut and adhesive tap provide into approx 12mm (0.5") squares and apply one square to each rotation shaft.

- a. The non-reflective area must always be greater than the reflective area.
- b. If the shaft is normally reflective, it must be covered with black tape or black paint before attaching reflective tape
- c. Shaft surface must be clean and smooth before applying reflective tape.

*VERY LOW RPM MEASUREMENT

As it is easy to get high resolution and fast sampling time, if measuring the very low RPM values, suggest user to attach more "REFLECTIVE MARKS" averagely. Then divide the reading shown by the number of "REFLECTIVE MARKS" averagely. Then divide the reading shown by the number of "REFLECTIVE MARKS" to get the real RPM

In this direction will find a vision of the measurement technique:
<http://www.industrial-needs.com/measuring-instruments.htm>

NOTE: "This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases)."