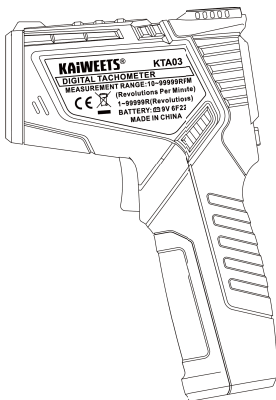




User Manual

Industrial Tachometer **KTA03**



Contact us: support@kaiweets.com

Please read the instruction manual carefully before use! Pay attention to the cautions, notes, warnings, etc. listed in the instruction manual.

Safety Instructions



Warning

- Direct laser radiation: permanent damage to eyesight or even blindness. Do not look directly into the laser beam, both reflected and diffused lasers are dangerous.
- Aim the laser only at the object to be indicated, and only at inanimate target objects.
- Never use optical instruments (such as binoculars, microscopes, etc.) to observe the beam, which will concentrate the light energy and increase the danger.
- Do not let children use it unattended.
- The laser path should not be established at the same level as the human eye (both when sitting and standing). The laser beam should be above or below it.

Product Features

- Beautiful design, easy to use and comfortable.
- Wide measuring range and high resolution.
- Incorporates microcontroller technology, photoelectric sensing, and anti-interference algorithms to ensure precise rotational speed measurement.
- Ultra-large screen LCD display, clear reading.
- Automatically memorize the maximum, minimum.
- When the battery voltage is lower than the specified value, there is a low power symbol indication.
- Automatic shutdown. If no button is operated, it will automatically shut down in about 4 minutes.

Function Key Overview

	Power on/off
	View maximum/minimum
	select the RPM measurement mode

Specifications

Display:	5-digit, 40mm LCD display
Accuracy:	$\pm(0.05\%+1)$
Range Selection:	Auto-ranging
Effective Distance:	500mm
Dimensions:	165 × 112 × 48 mm
Power Supply:	1 × 9V 6F22 batteries
Power Consumption:	Approximately 20mA
Weight:	Approximately 168g (including batteries)
Measurement Range:	Photoelectric RPM Measurement Mode: 10~99,999 rpm (revolutions per minute) Counting Measurement Mode: 1~99,999 r (revolutions)
Resolution:	Photoelectric RPM Measurement Mode: 0.1 rpm (10~9,999.9 rpm) 1 rpm ($\geq 10,000$ rpm) Counting Measurement Mode: 1 r (1~99,999 r)

Instructions for Use

Power on

Insert one 9V 6F22 batteries (ensure correct polarity as indicated in the battery compartment). Long-press the  power button to turn the device on or off.

Photoelectric Speed Measurement Mode

- Attach a piece of reflective tape to the surface of the object being measured.
- Long press the  power button to turn on the device, then short press the  mode button to select the RPM measurement mode.
- Press the measure trigger switch to align the visible light beam with the target object. Once the displayed value stabilizes, you can read the RPM. After completing the measurement, press the measure trigger switch again to exit measurement mode. The last recorded RPM will be retained. The maximum, minimum values will be automatically stored.
- Viewing Maximum, Minimum Values:

- Short press the  button to enter the maximum value view mode.
- Short press the  button to switch between maximum, minimum values.
- Long press the  button at any time to exit this view mode.

Maximum, Minimum Measurement Mode

- In measurement mode, short press the  button to enter the maximum, minimum measurement mode, and long press the  button to exit.
- Short press the  button to select maximum, minimum value:
- When the maximum value is selected, the display will show the highest recorded RPM, and it will only update if a new measurement exceeds the current maximum.
- The same applies to minimum values.
- Note: This mode is only applicable in RPM mode.
Please ensure the device is set to RPM mode before enabling this function.

Counting Measurement Mode

- Attach a reflective marker to the object being measured.
- Long press the  button to turn on the device, then short press the  button to select COUNT R measurement mode.
- Press the measure trigger switch to align the visible light beam with the target object to start counting. After completing the measurement, press the measure trigger switch again to exit measurement mode.
- Each detected count increases the count value by one, and a beep sound will be emitted as an alert.

Flashlight Switch

- Long press the  button to toggle flashlight on or off. (Both startup and shutdown operations can be performed.)

Battery Replacement

- When the battery voltage drops below 5V, the low battery indicator  will appear on the LCD screen, indicating a low battery condition.

- When the battery voltage drops below 4.5V, the low battery indicator 
- Flashing will appear on the LCD screen, indicates that the product is about to shut down.
- When the battery voltage drops below 4V, the product will automatically shut down. You need to replace the battery immediately.
- Open the battery cover, remove the old batteries, and install new ones according to the polarity markings in the battery compartment.

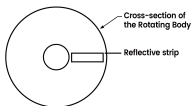
Auto Power Off

- Long press the  button to turn on the device. The auto power off symbol will appear in the top left corner of the screen. The device will automatically turn off after 4 minutes of use.
- Disable Auto Power Off:
When turning on the device by long pressing both the button and  the  button, the auto power off function will be disabled, and the auto power off

symbol will no longer appear in the top left corner of the screen.

Measurement Precautions

- **Reflective Marker:**
Cut an appropriately sized piece of reflective tape and attach it to the selected surface of the object. The non-reflective area must be larger than the reflective area.
- If the shaft surface is highly reflective, apply black paint or black tape before attaching the reflective tape.
- Ensure the shaft surface is clean and smooth before applying the reflective tape.
- **Low-Speed Measurement:** To improve measurement accuracy at very low rotational speeds, it is recommended to attach multiple evenly spaced reflective tapes on the measured object. The actual rotational speed can be obtained by dividing the displayed reading by the number of reflective markers.
- The length of the reflective tape should be smaller than the radius of the rotating object.



- If the instrument will not be used for an extended period, remove the batteries to prevent leakage and potential damage.

Laser Safety Precautions

- Direct Laser Radiation: Direct exposure can cause permanent eye damage or blindness. Do not look directly at the laser beam, as both direct and reflected laser radiation can be hazardous.
- Always aim the laser only at the intended target, and ensure it is a non-living object.
- Do not use optical instruments (such as binoculars or microscopes) to view the laser beam, as they can intensify the laser energy, increasing the risk of injury.
- Keep out of reach of children and do not allow unsupervised use. Ensure that the laser path is not at eye level (both when sitting and standing). The beam should always be directed above or below eye level.

Package Included:

- 12 * Reflective tape, Size: 50mm × 10mm
- 1 * Instruction manual
- 1 * KTA03 Industrial Tachometer
- 1 * Cloth bag

Note:

- For safety reasons, it is recommended to use photoelectric measurement when measuring high speeds.
 - When installing the battery, place the battery clip with the cable facing down.
- ✓ Three Years Warranty
- ✓ Contact: support@kaiweets.com

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