REED

Model R7140

Photo-Contact Tachometer

Instruction Manual

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Table of Contents

Features

- Dual function unit with both contact and non-contact capabilities
- Provides fast and accurate RPM measurements of rotating objects and surface speed measurements m/min (meter per min) and ft/min (feet per min)
- Internal memory holds last reading for 5 mins and recalls min/max and last value
- LCD Display reverses depending on measurement mode
- Includes reflective tape, large and small cone tip adapters, funnel adapter, wheel adapter, batteries, and hard carrying case

Specifications

RPM Range	Photo: 5 to 99,999 Contact: 0.5 to 19,999
Surface Speed Range	0.05 to 1,999.9 m/min 0.2 to 6,560 ft/min
Resolution	Photo: 0.1 RPM (≤999.9) / 1 RPM (≥1000) Contact: 0.1 RPM (≤999.9) / 1 RPM (≥1000) Surface: 0.01 m/min. (≤99.99m/min.) / 0.1 m/min. (≥100.0m/min.) 0.1 ft/min. (≤999.9 ft/min) / 1 ft/min. (≥1000 ft/min)
Accuracy	±(0.05% + 1 digit)
Visible Indicator	Yes (Light)
Optimal Target Distance	2 to 6" (50 to 150mm)
Maximum Target Distance	1.0 ft (300mm)
Response Time	<1 sec
Sampling Time:	Photo: 1 sec (over 60 RPM) Contact: 1 sec (over 6 RPM)
Display Size/Type:	5 Digit LCD Display
Auto shut-off:	Yes
Internal Memory:	Max, Min and Last
Low Battery Indicator:	Yes
Power Supply:	4 x AA Batteries
Product Certifications:	CE
Operating Temperature:	32 to 122°F (0 to 50°C)
Storage Temperature:	-4 to 140°F (-20 to 60°C)
Operating Humidity:	10-80%
Dimensions:	8.5 x 2.6 x 1.5" (215 x 65 x 38 mm)
Weight:	10.6oz (300g)

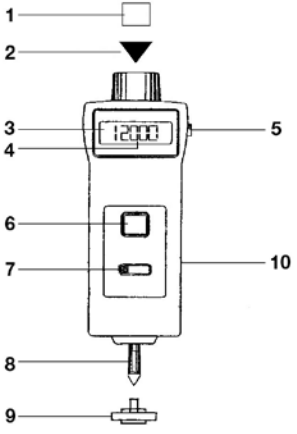
Note: When using the test wheel, accuracy can be affected 0.5% of reading.

Optional accessories:

Replacement Measuring Wheel (AS-35C)
Replacement Cone Tip (CONE)
Replacement Funnel Tip (FUNNEL)
Replacement extension Shaft (EXT-SHAFT)
Reflective Tape (RT100)
Soft Carrying Case (CA-05A)
Hard Shell Carrying Case (R9940)

Instrument Description

1. Reflective mark
2. Signal light beam
3. Monitor indicator
4. Display
5. Measure button
6. Memory call button
7. Function select switch
8. Rotating ring
9. Circumferential speed ring
10. Battery Compartment



Operating Instructions

Photo Tachometer Measurement

1. Slide the **Function** switch to the **RPM (Photo)** position
2. Place the reflective marking (tape) to the object being measured
3. Press the **Measure** button and align the visible light beam with the reflective mark
4. Ensure that the **Monitor** indicator lights when the target passes through the light beam
5. Release the **Measure** button when the reading stabilizes (about 2 seconds)

In order to obtain greater accuracy for measurement of less than 50 RPM, use 2 or 3 pieces of reflective tape and then divide the reading with the number of pieces used to calculate the final figure.

Contact RPM Measurement

1. Slide the **Function** switch to RPM (Contact) position
2. Press the **Measure** button while lightly pressing the rotating device
3. Release the **Measure** button when the reading stabilizes (approx. 2 seconds)

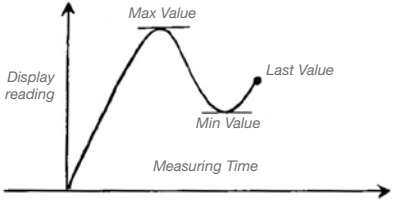
Contact Surface Speed Measurement

1. Slide the **Function** switch to **m/min.** (Surface Speed) or **ft/min.** (Surface Speed)
2. Press the **Measure** button and simply attach the surface speed test wheel to the detector
3. Release the **Measure** button when the reading stabilizes

Memory Call Button Operation

The minimum, maximum and the last (final) readings are automatically stored during measurement. These values can be recalled anytime by pressing the **Memory Call** buttonTo recall the stored value, follow these procedures:

1. Press the **Memory Call** button once to display the last reading. The symbol “LA” will appear on the display.
2. Press the **Memory Call** button once again to display the maximum value. The symbol “UP” will appear on the display.
3. Press the **Memory Call** button once more to display the minimum value. The symbol “DN” will appear on the display.



Battery Replacement

When the left corner of the LCD display shows LO BAT “ ”, it indicates the battery output less than 4.5VCC and replacement of the battery is then needed.

1. Open the Battery Cover at the back of meter and remove the battery
2. Replace with 4 x 1.5 V AA/UM-3 batteries and reinstall the cover

For service on this or any other REED product or information on other REED products, contact REED Instruments at info@reedinstruments.com