

## Manual Handheld Tachometer PCE-T236



---

## Contents

<b>1</b>	<b>Introduction .....</b>	<b>3</b>
1.1	Delivery content .....	3
<b>2</b>	<b>Safety notes .....</b>	<b>3</b>
<b>3</b>	<b>Specifications .....</b>	<b>4</b>
<b>4</b>	<b>System description .....</b>	<b>5</b>
<b>5</b>	<b>Instructions.....</b>	<b>5</b>
5.1	Power on.....	5
5.2	Measuring the revolutions .....	5
5.3	Optical measurement .....	5
5.4	Contact measurement .....	5
5.5	Surface speed .....	5
5.6	Memory.....	5
5.7	Batteries.....	6
<b>6</b>	<b>Disposal .....</b>	<b>6</b>
<b>7</b>	<b>Contact.....</b>	<b>6</b>
7.1	PCE Instruments UK .....	6
7.2	PCE Americas .....	6

## 1 Introduction

Thank you for purchasing a hand-held tachometer PCE-T236 from PCE Instruments.

Using this tachometer, you can carry out contact, as well as optical measurements which offers you the possibility to test machines, shafts and conveyor belts and do maintenance work by detecting damage at an early stage.

### 1.1 Delivery content

- 1 x hand-held tachometer PCE-T236
- 1 x approx. 650 mm reflective tape
- 1 x measuring tip
- 1 x measuring wheel
- 1 x pipe adaptor
- 4 x 1.5 V AAA batteries

## 2 Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. There is no warranty of damages or injuries caused by non-observance of the manual.

- The device may only be used within the specified temperature and humidity ranges.
- To avoid injuries, do not point the laser at people's or animals' eyes.
- Remove the batteries when you will not use the device for a longer period of time.
- This device may only be used as described in this manual. If used otherwise, dangerous situations can occur.
- Do not expose the device to extreme temperatures, direct sunlight, extreme air humidity or moisture.
- The case should only be opened by qualified personnel of PCE Instruments.
- Never use the device when your hands are wet.
- The instrument should never be placed with the user interface facing an object (e. g. keyboard side on a table).
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth / use only pH-neutral cleaner. Do not use cleaning agents containing abrasives or solvents.
- Only use the device with PCE accessories or equivalent.
- Before each use, inspect the device for visible damage. If any damage is visible, do not use the device.
- Do not use the device in explosive atmospheres.

This user's handbook is published by PCE Instruments without any guarantee.

We expressly point to our general guarantee terms which can be found in our general terms of business.

If you have any questions please contact PCE Instruments.

### 3 Specifications

Measurement ranges	Optical measurement
	5 ... 99999 rpm
	Contacting measurement
	0.5 ... 19999 rpm
	0.05 ... 1999 rpm
	0.2 ... 6560 ft/min
Resolution	Optical measurement
	0.5 ... 999.9 = 0.1 rpm
	1000 ... 99999 = 1.0 rpm
	Contacting measurement
	0.5 ... 999.9 = rpm
	1000 ... 99999 = 1.0 rpm
	0.05 ... 99.99 = 0.01 rpm
	<1999 = 0.1 rpm
	0.2 ... 999.9 = 0.1 ft/min
	<6560 = 1.0 ft/min
Accuracy	<60000 rpm $\pm$ 0.05 % f. s. >60000 rpm $\pm$ 0.15 % f. s.
Max. measuring distance for optical measurement	300 mm
Memory	Last measured value, Min/ Max
Power supply	4 x 1.5 V AAA batteries
Operating temperature range	0 ... +50 °C
Case	ABS plastic
Display of revolutions	5-digit LC display with flip indication
Dimensions	65 x 215 x 38 mm
Weight	175 g without batteries

## 4 System description



1. Laser diode
2. Photodiode
3. LC display
4. Memory key
5. Key for m/min
6. Key for optical measurement
7. On/off key
8. Key for ft/min
9. Key for contacting measurement
10. Contacting sensor

## 5 Instructions

### 5.1 Power on

Before starting a measurement, switch on the device, using the On/off key. The device should now emit a beep tone and indicate 0 RPM.

### 5.2 Measuring the revolutions

To measure the revolutions, you can either select optical or contact measurement.

### 5.3 Optical measurement

First, add reflective tape to the shaft. To do so, cut off 2-3 cm of reflective tape and attach it to the object you would like to measure. Now you can start the optical measurement of revolutions by pressing key 6. Since the optical measurement is carried out by means of a laser, make sure not to point the laser at human or animals' eyes to avoid injuries when entering the measurement mode. Now point the laser at the position where you attached the reflective tape.

### 5.4 Contact measurement

To start the contacting measurement, press key 9. Attach the conical or cylindrical measuring adaptor to the device. Press the adaptor onto the centre of the shaft to be measured to record the revolutions per minute.

### 5.5 Surface speed

You can also use the PCE-T236 to measure the surface speed either in metres per minute (key 5) or in feet per minute (key 8). To take a measurement, attach the measuring wheel adaptor to the device. The measuring wheel has a wider diameter than the other adaptors. The diameter is saved in the device for conversion.

### 5.6 Memory

During the measurements, the device will always save the highest and lowest values as well as the last measured value. When you press key 9 after a measurement, you will see the following indication: "highest reading", "uP", "lowest reading", "reading last measured", "LA", "dn". After this, the values will be displayed again.

## 5.7 Batteries

To operate the device, you must insert four 1.5 V batteries, type AAA. To do so, open the battery compartment cover on the back of the device. Insert the batteries as shown in the cover. Observe correct polarity. Put the cover back on.

## 6 Disposal

For the disposal of batteries, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose.

In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law.

If you have any questions, please contact PCE Instruments.



## 7 Contact

If you have any questions about our range of products or measuring instruments please contact PCE Instruments.

### 7.1 PCE Instruments UK

**By post:**

PCE Instruments UK Ltd.  
Units 12/13 Southpoint Business Park  
Ensign Way, Southampton  
Hampshire

United Kingdom, SO31 4RF

**By phone:**

02380 987 035

### 7.2 PCE Americas

**By post:**

PCE Americas Inc.  
711 Commerce Way  
Suite 8  
Jupiter  
33458 FL  
USA

**By phone:**

561 320 9162