

# Tachometers

## PCE-OM 15

Stroboscope with external trigger and AC power

The PCE-OM 15 stroboscope has an external trigger function as well as a 6500 K xenon white lamp. This unit flash freezes the motion and measures the speed of a rotating object without contact, simply by aiming and synchronizing its flash rate (fpm) with the speed (rpm) of the object. The stroboscope has a 230V power supply and it is ideal for quality control of all type of components and rotating machines in preventative inspection, maintenance procedures, motion analysis, gear movement, etc.

- ON / OFF switch, range adjustment, fine and coarse adjustment buttons to synchronize flash, double or divide in half the flashing and display rate with just one activation, memory
- Frequency range adjustment with turn-key
- Detachable pistol-grip handle
- Xenon white lamp of 6.500 K
- External trigger function
- RS-232 interface
- Tripod for fix the unit
- ISO Certificate as optional



### Technical specifications

Measurement range	5 to 12,500 r.p.m. 0.083 to 208 Hz
Accuracy	±0.15 % (up to 1,000 r.p.m.) ±0.5 % (up to 3,300 r.p.m.) ±1.0 % (over)
Resolution	0.1 (up to 999 r.p.m.) 1.0 (> 999 r.p.m.)
Maximum distance	1 m (depending on operating illumination)
Phase shift	no
Power	230 V AC 50 Hz
Enclosure	ABS plastic
Dimensions	210 x 120 x 120 mm
Weight	1100 g

### Contents

PCE-OM 15 Stroboscope, detachable pistol-grip, power adaptor and user's manual

Model No.	Description
PCE-OM 15	Stroboscope

### Optional accessories

XL-DS	Spare Xenon White lamp
STAT	Tripod
CAL-DS	ISO Certificate



## PCE-OM 200

Phase displacement stroboscope, trigger input and powered by rechargeable battery

High performance stroboscope with sturdy enclosure. The flash frequency is adjusted from the apparatus and appears on the LED display. The machine component or the material to be tested is illuminated in respect to the frequency of repetition of movement and when this is done, the user perceives the object to be stationary. Impulses can be divided or multiplied to determine the exact number of revolutions.

- Powered by rechargeable NiCad battery (14.4 V)
- Phase displacement
- Flash frequency adjusted using the device or it can be input from an external sensor/trigger input
- Frequency can be adjusted: x2 or /2
- Continuous operation without losing power thanks to the large reflector and good heat displacement
- 13 W, 6,300 K, white Xenon lamp
- Large LED display
- Optional ISO calibration certificate



### Technical specifications

Measurement ranges	30.0 to 14,000 r.p.m. 0.5 to 233.33 Hz
Accuracy	±0.01 %
Resolution	0.1 r.p.m.
Maximum distance	1,5 m (depending on illumination)
Phase displacement	yes, up to 360 °
Power	internal rechargeable battery
Mains Power	230 V / 50 Hz
Indicator	LED
Enclosure	plastic
Dimensions	110 x 185 x 300 mm
Weight	with accumulator 1880 g

### Contents

PCE-OM 200 stroboscope, rechargeable battery, charger, replacement lamp, case and user's manual

Model No.	Description
PCE-OM 200	Stroboscope with rechargeable battery, charger, spare lamp and carrying case

### Optional accessories

UNX-TP	Trigger cable (impulse input)
UNX-TC	Trigger cable (contact input)
EA-200	Replacement rechargeable battery
ER-200	Replacement xenon lamp
STAT	Tripod
CAL-DS	ISO Certificate

## Beacon

### Handheld stroboscope with high light unit

The high powered, handheld Beacon stroboscope allows you to measure revolutions, oscillations or observe movement in sieving processes. It has a small, light weight enclosure. Because of this it can be used to measure with comfort in the places difficult to access. The intensity of light of 1374 lux at 5 m distance allows you use it in conditions of low illumination. The flash frequency is adjusted with two keys and it appears on the digital display.

- ON/OFF switch, fine and coarse adjustment buttons to synchronize flash, double or divide to half the flashing
- 1374 lux Xenon white lamp (100 million flashes)
- FPS/Hz = flashes / second or Hz
- Three power levels
- Long battery life: 30 min (maximum intensity and flash range)
- Solid enclosure
- Operates with rechargeable battery
- Two batteries included
- ISO Certificate as optional



#### Technical specifications

Measurement range	30.0 to 18,000 r.p.m. 0.5 to 300 Hz
Accuracy	±0.01 % of reading
Resolution	± 0.1 r.p.m. (full range)
Maximum distance	5 m (depending on operating illumination)
Phase shift	yes, up to 360 °
Power	15 VDC (internal rechargeable battery, charges in 2 to 3 h)
Enclosure	ABS plastic
Dimensions	168 x 161 x 342 mm
Weight	2300 g (with battery)



Beacon in use

#### Contents

Beacon Stroboscope, battery charger, adaptor, 2 batteries and user's manual

Model No.	Description
Beacon	Stroboscope with batteries

#### Optional accessories

TC-BEAC	Trigger cable (impuls & contact)
ER-BEAC	Replacement xenon lamp
EA-BEAC	Replacement battery
NST-BEAC	Nylon carrying case
CAL-DS	ISO Certificate

## PCE-T259

### Handheld tachometer and stroboscope: two meters in one

This tachometer and stroboscope in one is useful for inspection and maintenance in production processes. It is a handheld meter that is ideal for checking revolutions of machine components or in motors, fans and other mechanisms.

#### Stroboscope

The stroboscope has a measurement range of 100 to 100,000 r.p.m.. Due to the connection IC and the orange lamp LED the meter has low power consumption and it doesn't require maintenance. The stroboscope is adjusted by two knobs for fine and normal adjustment.

#### Tachometer with non-contact measurement

Tachometer without contact from 5 to 100.000 r.p.m. with a resolution of 0.1 (within <1,000 r.p.m.).

- High power LED lamp
- Solid, ABS plastic enclosure
- 5 digit LCD, 10mm, 180° automatic drawing (depending on measurer model)
- Memory for last, maximum and minimum values, automatic update when the unit is turned on
- ISO Certificate as optional



#### Technical specifications

Measurement range	5 to 99,999 r.p.m. (photo) 100 to 100,000 r.p.m. (stroboscope - flashes/min)
Accuracy	±0.1 % of value; ±2 positions
Resolution	0.5 r.p.m. <1000 r.p.m. (photo) 1.0 r.p.m. >1000 r.p.m. (photo) 0.1 r.p.m. (< 1000 r.p.m.) (stroboscope) 1.0 r.p.m. (> 1000 r.p.m.) (stroboscope)
Maximum distance	50 to 150 mm; max. 300 mm
Min Max Peak Hold	yes
Interface /data transfert	-
Software	-
PC requirements	-
Power	4 AA batteries (1.5V)
Enclosure	ABS plastic
Dimensions	65 x 215 x 38 mm
Weight	300 g



Optical measurement of rotation

#### Contents

PCE-T259 Tachometer, reflective marking tape (600mm), carrying case and user's manual

Model No.	Description
PCE-T259	Stroboscope and tachometer

#### Optional accessories

REFB	Reflective marking tape (500mm roll)
CAL-DS	ISO Certificate (for stroboscope function)
CAL-DT	ISO Certificate (for tachometer function)

# Tachometers

## PCE-DT62

### Photo tachometer with laser for non-contact measurements

Portable PCE-DT62 tachometer is the ideal measurer for measuring revolutions in machine components, conveyor belts, motors, etc.. The non-contact measurement is carried out with the help of a reflective marker on the object to be measured and you must aim the laser light beam for accurate readings that are refreshed every second. This tachometer has a switch to select the measurement: you can select the revolutions per minute measurement (RPM) or the count (TOT). You can also store the MAX and MIN values.

- Narrow beam laser for accurate non-contact measurement
- Use reflective marker on object to be measured and aim the laser light beam to take accurate measurements that refresh every second
- Solid ABS plastic enclosure
- Built-in memory recall, Last, MIN / MAX values stored
- ISO Certificate optional



#### Technical specifications

Measurement range	2 to 99,999 r.p.m.
Resolution	in the range 2 to 999.9 = 0.1 r.p.m. in the range 1000 to 99,999 = 1 r.p.m.
Accuracy	± 0.05 % of reading, ±1 digit
Maximum distance	500 mm
Memory	MAX, MIN and last values
Power	1 battery 9 V pack
Operating temperature	0 to +50 °C
Enclosure	ABS plastic
Indicator	5 digit LCD (16 mm)
Dimensions	160 x 58 x 39 mm
Weight	150 g

#### Contents

Laser Photo Tachometer, batteries, 5 reflective tape markers of (15 cm), carrying case and user's manual

Model No.	Description
PCE-DT62	Tachometer

#### Optional accessories

REFB	Reflective tape marker (5 m roll)
CAL-DT	ISO Certificate

Use of the PCE-DT62 handheld tachometer



non-contact measurement

## PCE-T236

### Combination contact/photo tachometer

This handheld tachometer is a complete instrument for optical RPM (Revolutions Per Minute) measurement. The PCE-T236 is suitable for revolutions of machine components, conveyor belts, motors, etc. Measurement without contact (photo) using a reflective marker on the object to be measured. You only need to point the laser light beam at the rotating component for accurate readings that are refreshed every second. Contact measurement with contact through a flat tip, spare, cone tip or surface wheels which are included in the delivery (see picture). This tachometer has a switch to select four ranges and memory which stores MAX, MIN and Peak values.

- Provides RPM (photo) readings with reflective tape markers (60 mm) and linear surface speed (contact) measurements
- Contact RPM measurements for flywheels, conveyor belts, pumps and elevators
- Non-contact RPM measurements for fans, motors and gears
- Tachometer memory stores last, MIN e MAX readings
- Complete with wheel for linear surface RPM measurements
- ISO Certificate as optional



#### Technical specifications

Measurement range	5 to 99,999 r.p.m. (photo measure.) 0.5 to 19,999 r.p.m. (measure. with contact) 0.05 to 1999 m/min (measure. with contact)
Accuracy	± 0.05 % of reading; ±1 dgt.
Resolution	0.1 r.p.m. (range 0.5 to 999.9 r.p.m.) 1.0 r.p.m. (other range)
Maximum distance	300 mm
Min Max Peak Hold	yes
Interface	-
Software	-
PC requirements	-
Power	4 AA batteries (1.5 V)
Enclosure	ABS plastic
Dimensions	65 x 215 x 38 mm
Weight	300 g

#### Contents

PCE-T236, cone tip, flat tip, surface wheel, reflective marker tape (60 mm) and user's manual

Model No.	Description
PCE-T236	Tachometer

#### Optional accessories

REFB	Spare reflective marker tape (roll of 5 m)
EMA-DT	Spare adaptor kit
CAL-DT	ISO Certificate

Use of PCE-T236 handheld tachometer



non-contact measurement



measurement with contact



measurement of conveyor belt

## PCE-151

### Tachometer with interface and software

Photo tachometer with RS-232 interface, software for data transfer. You can add an adaptor for contact measurements. Thanks to the possibility of data transmission, you can use this unit in experiments and in tests to determine the number of rotations of a specific object. It is also possible to take an accurate count of pieces or products on conveyor belts. The unit can also be fixed to a tripod or another mounting device.

- Solid enclosure
- Non-contact measurement with reflective tape markers
- Contact measurement with an optional adaptor
- 5 digit LCD (10 mm)
- Tachometer memory stores last, MIN e MAX readings
- Auto shut-off after 30 min
- RS-232 interface and software to transfer data to a PC
- ISO Certificate as optional



optional adaptor

#### Technical specifications

Measurement range	10 to 99,999 r.p.m. (photo measurement) 0 to 99,999 (photo measurement) 0.2 to 1999 Hz (r/s), (optical measurement) 10 to 29,999 r.p.m. (with adaptor) 0.2 to 500 Hz (r/s), (with adaptor)
Accuracy	± 0.04 % of reading; ±2 dgt.
Resolution	0.001 / 0.01 / 0.1 / 1 in all ranges (photo and contact measurements)
Maximum distance	300 mm
Min Max Peak Hold	yes
Interface	yes, RS-232, sampling time of 2 sec
Software	yes, for transfert and check values
PC requirements	CD, Windows 95 or better
Power	4 AA batteries (1.5 V)
Enclosure	ABS plastic
Dimensions	172x 63x 36 mm
Weight	190 g

#### Contents

PCE-151 Tachometer, reflective marker tape, interface, software and user's manual

Model No.	Description
PCE-151	Tachometer

#### Optional accessories

REFB	Spare reflective marker tape (5 m)
PCE-152	Adaptor for contact measurement
STAT	Tripod
CAL-DT	ISO Certificate



non-contact measurement



measurement with contact



measurement of conveyor belt

## PCE-155

### Tachometer/Ratemeter with a range of 8 m, pulse output and sensors

The PCE-155 handheld tachometer is a digital, battery-powered, optical unit which operates up to 8m from a moving target using a laser light source. The ergonomic design allows for safe, direct line-of-sight of both the target and the display at the same time, while providing a non-slip rubber surface for single hand operation. This tachometer is a 32 function tachometer/ratemeter and timer (stopwatch), which can be programmed. Support is built-in for both our optional remote contact assembly (RCA) and our remote sensors. It has a TTL compatible Pulse Output to trigger devices like data collectors or stroboscopes. The kit comes supplied complete with a Remote Contact Assembly including concave and convex tips and a 10cm linear speed wheel.

- Handheld tachometer for non-contact measurements up to 8 m
- Velocity in m/min, r.p.m.
- Large 5 digit LCD (12 mm)
- Built-in memory recalls Last, MIN / MAX values stored
- Large measurement range,
- External sensors
- Contact tachometer (optional)
- Internal totals and timer functions
- ISO Certificate as optional



#### Technical specifications

Contact RPM range	0.5 to 20,000 r.p.m. (probes) 0.5 to 12,000 r.p.m. (wheels) accurate to within ±0.05 %
Optical range	5 to 200,000 r.p.m. accurate to within ±0.01 %
Resolution	0.001 to 1.0 r.p.m.
Operating range	5 cm to 8 m, ±70 °
Laser sensor	class 3R, 3 mW, 650 nm
Length measurement	0 to 999,999 inchs, feet, yards, cm or m (10 cm wheel)
Stop/time switch	minutes: seconds: decimal up to 99:59.9
Memory	MIN, MAX and last values
Indicator	5 digit LCD (12 mm)
Type input	jack plug
Pulse output	jack plug, 1:1, 0 to 3.3 VDC
Power	2 AA batteries (1.5 V)
Operating conditions	+5 °C to +40 °C, 5 % to 80 % r.h.
Enclosure	Rubberized
Dimensions	175 x 61 x 41 mm
Weight	210 g

#### Contents

PCE-155: tachometer and user's manual with pictures or PCE-155 KIT: tachometer, tips, 10cm wheel, reflective marking tape, handle and carrying case.

Model No.	Description
PCE-155	Handheld tachometer PCE-155
PCE-155 Kit	Tachometer PCE-155 Kit

#### Optional accessories

OSEN	Optical sensor
ISEN	Infrared sensor
STAT	Tripod to mount the PCE-155
CAL-TRM	ISO-9000 Certificate



non-contact measurement



measurement with contact



measurement of conveyor belt