RPM MEASUREMENT
STROBOSCOPES FOR INDUSTRY, TRADE AND RESEARCH

PCE Instruments

Discover our new test instruments and their functions

PCE INSTRUMENTS

TESTING
MEASURING INSTRUMENTS

TEST INSTRUMENTS FROM GERMANY

Maintenance and Service

PCE Deutschland GmbH, based in Meschede-Freienohl in the Sauerland region of Germany, was founded in 1999 by three engineers. With more than 140 employees and locations worldwide, PCE Instruments specialises in the development, manufacture and sale of high-performance, innovative products in the fields of measurement technology, control technology, weighing technology and laboratory technology.

PCE Deutschland GmbH is **DIN EN ISO 9001** and **DIN EN ISO 14001** certified and manufactures test equipment that is customised to meet specific customer requirements. PCE Instruments supplies to customers in the government, industrial and academic sectors, among others.

PCE Instruments' comprehensive range of products and services offers you high precision and flexibility in all applications, as well as outstanding quality and functionality. Take a look at the cetegories in the overview.

MEASURING INSTRUMENTS

The field of measuring instruments covers a multitude of innovative portable products as well as products for fixed installation that measure electrical, mechanical, biological and chemical parameters.

CONTROL SYSTEMS

The range of control systems covers the complete demand for sensors, displays, controllers and paperless recorders.

WEIGHING EQUIPMENT

The field of weighing equipment comprises a wide standard range of high-quality scales and balances that can be calibrated and/or verified for trade.

LABORATORY TECHNOLOGY

High-end analytical and laboratory devices have been developed for professional applications and in particular for use in laboratories.

DEVELOPMENT

In order to develop modified test equipment in line with customers' specifications, proficient engineers and technicians cooperate closely with the customer.

PRODUCTION

PCE Instruments manufactures industrial test instruments that help improving process analysis and optimisation.

CALIBRATION

Our DIN EN ISO 9001:2015 certified calibration laboratory verifies the measuring accuracy of our products. They calibrate pressure, hardness, force, material thickness, sound volume, conductivity, redox, vibration acceleration and more.

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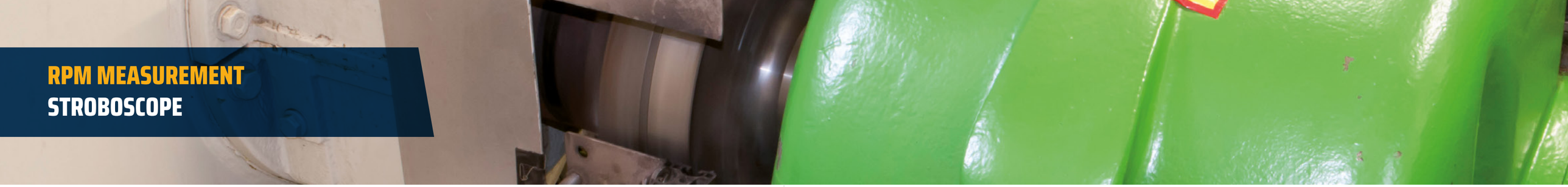


RPM MEASUREMENT
STROBOSCOPE

PCE-OM 15

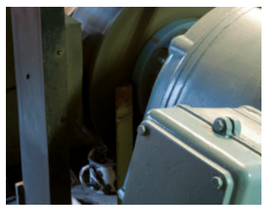
Handheld digital strobe tachometer with high / Low range selection, adjustable coarse

PCE-OM 15 is a handheld stroboscope or strobe tachometer with trigger functionality. This easy-to-use portable digital stroboscope gun features high / low range selection and push-button rate control to scale the flash rate slower (x½) and faster (x2). In addition, two knobs allow coarse and fine adjustment of the flash rate. When the speed of a moving object matches the flash rate of the strobe, the moving object appears to be standing still. With a slight adjustment, movement can be viewed in apparent slow motion. Slow motion makes it easier to visually inspect the process in action. However, these visual illusions can be disorienting. Take necessary safety precautions to avoid accidental contact with moving objects.

ISO cal option

- Measuring range: 50 ... 30000 rpm
- Bright 6500K xenon light bulb
- 10 mm / 0.4 in 5-digit LCD
- Lightweight yet sturdy ABS plastic housing
- High / low range selection
- Adjustable coarse and fine flash rates
- Push-button rate control for slower (x½) and faster (x2) flashing

APPLICATION



TECHNICAL SPECIFICATIONS

Measuring range	50 ... 30000 rpm
Resolution	0.1 = 50.0 ... 999.9 rpm 1 = 1000 ... 30000 rpm
Accuracy	± 0.05% + 1 digit
Sampling time	0.3 second
External trigger level	3-24V
Lamp	6500K xenon light bulb
Display	10 mm / .4 in 5-digit LCD
Angle of reflection	80°
Power supply	220V AC
Operating conditions	0 ... 40°C / 32 ... 104°F, Less than 80% RH
Dimensions	Approx. 215 x 85 x 180 mm / 8.5 x 3.3 x 7.1 in
Weight	Approx. 1,000 g / 2.2 lbs

Subject to change without notice

RPM MEASUREMENT
STROBOSCOPE

PCE-T 240

Contact and optical speed measurement

The stroboscope has a contact speed measurement. The measuring range of the contact speed measurement with the stroboscope is 0.5 ... 99,999 RPM. In order to transmit the speed to the stroboscope, the scope of delivery includes two rubber measuring tips with an inner and an outer cone. In the case of contact measurement with the stroboscope, the speed can also be determined in m/min, for example, using the measuring wheel.In addition to the contact measurement, the speed can also be measured optically with the stroboscope. To do this, a piece of reflective tape measuring 1 x 1 cm is glued to the test object. The stroboscope can determine the speed through the reflection.

ISO cal option

- Battery and mains power adapter
- Strobe for speed determination
- Contact and optical measurement
- Measuring range 0.5 ... 99,999 RPM contact
- Temperature measurement in °C and °F
- Various attachments

APPLICATION

TECHNICAL SPECIFICATIONS

Optical measurement	
Measuring range	5 ... 99,999 RPM
Resolution	0.5 RPM (< 1,000 RPM) 1 RPM (≥1,000 RPM)
Accuracy	±(0.05 % of reading + 1 digit)
Detection distance	50 ... 150 mm, 2 ... 6 inch (typical) maximum 300 mm, 12 inch (depending on ambient lighting)
Contact measurement	
Measuring range	0.5 ... 19,999 RPM
Resolution	0.5 RPM (<1,000 RPM) 1 RPM (≥1,000 RPM)
Accuracy	±(0.05% of reading + 1 digit)
Measuring range	0.05 ... 1,999.9 m/min
Resolution	0.05 m/min (<100 m/min) 0.1 m/min (≥100 m/min)
Accuracy	±(0.05% of reading + 1 digit)
Measuring range	0.2 ... 6,561.4 ft/min
Resolution	0.1 ft/min (<1,000 ft/min) 1 ft/min (≥1,000 ft/min)
Accuracy	±(0.05% of reading + 1 digit)
Measuring range	2.0 ... 78736.2 in/min
Resolution	0.1 in/min (<1,000 in/min) 1 in/min (≥1,000 in/min)
Accuracy	±(0.05% of reading + 1 digit)
Strobe	
Measuring range	100 ... 99,990 RPM/FPM
Resolution	0.1 RPM (<1,000 PRM) 1 RPM (1,000 ... 30,000 RPM) 5 RPM (30,000 ... 50,000 RPM) 10 RPM (50,000 ... 99,990 RPM)
Accuracy	±(0.1% of reading + 2 digits)
LED	three red LEDs
Temperature (Type K)	
Measuring range	-50.0 ... 1300.0 °C
Resolution	0.1 °C
Accuracy	±(0.4 % of reading +0.5 °C)
Measuring range	-100.0 ... -50.1 °C
Resolution	0.1 °C
Accuracy	±(0.4 % of reading +1 °C)
Measuring range	-58.0 ... 2372.0 °F
Resolution	0.1 °F
Accuracy	±(0.4 % of reading +1 °F)
Measuring range	-148.0 ... -58.1 ... °F
Resolution	0.1 °F
Accuracy	±(0.4 % of reading +1.8 °F)
Temperature (PT1000)	
Measuring range	-10.0 ... 70.0 °C, 14.0 ... 158.0 °F
Resolution	0.1 °C, 0.1 °F
Accuracy	±1.2 °C, ± 2.2 °F
More specifications	
Display	LCD display, 43 x 33 mm, 5 digits
Storage	largest and smallest measured value
Power supply (mains power)	9 V DC, 100 mA
Power supply (battery)	4 x 1.5V AA batteries
Power consumption	DC 42 mA
Automatic shutdown	after 10 minutes of inactivity
Interface	RS232
Environmental conditions	0 ... 50 °C, 32 ... 122 °F, <80 5 RH, (non-condensing); magnetic field <3 V/M, <30 MHz
Dimensions	207 x 67 x 39 mm, 8.15 x 2.63 x 15.3 inch
Weight	230 g, 0.5 lb (without batteries)

Subject to change without notice

RPM MEASUREMENT
HANDHELD TACHOMETER

PCE-T 260

with Optical & Contact speed measurement

The combined tachometer-stroboscope is a measuring device for use in maintenance and production. In addition to the stroboscope function, the tachometer-stroboscope is also able to mesure temperature by an infrared beam. Thus, the tachometer-stroboscope is ideal for testing the rotational speeds and temperatures of centrifuges, motors, fans, and many other machines and systems used in industry and research. The special feature is the combination of these measurement parameters in a single housing. The tachometer-stroboscope has a measuring range of 0.5 ... 99.990 rpm, and the IC circuit in conjunction with a bright red LED lamp ensure the device has a low power consumption and is almost maintenance-free.

ISO cal option

- easy to handle
- powerful LEDs
- non-contact temperature measurement
- temp. measurement with sensor type K o. PT 1000
- robust ABS plastic housing
- 5-digit 10 mm LCD display
- last measured value, min / max memory
- red strobe light

APPLICATION

TECHNICAL SPECIFICATIONS

Technical data of PCE-T 260 optical tachometer

Measuring range	5 ... 99999 rpm
Resolution	0.5 U/min (< 1000 rpm) 1 rpm (>1000 rpm)
Accuracy	±0.05% + 1 Digit
Distance to the measuring object	50 ... 150 mm / 2 x 5.9 in, max. 300 mm / 12 in (depending on ambient light)

Technical data of PCE-T 260 contact tachometer

Measuring range	0.5 ... 19999 rpm
Resolution	0.5 rpm (< 1000 rpm) 1 rpm (>1000 rpm) 0.05 m/min (<100 m/min) 0.1 m/min (>100 m/min)
Accuracy	±0.05% + 1 Digit

Technical data of PCE-T 260 stroboscope

Measuring range	100 ... 99990 FPM
Resolution	0.1 FPM (< 1000 FPM) 1 FPM (1000 ... 30000 FPM) 5 FPM (30000 ... 50000 FPM) 1 FPM (50000 ... 99990 FPM)
Accuracy	±0.1% + 2 Digit
Flash lamp	3 x LED (red)

Technical data of PCE-T 260 temperature Type K

Measuring range	-100 ... 1300 °C / -148 ... 2372 °F
Resolution	0.1°C
Accuracy (device only)	±0.4 % + 1 °C / 33 °F (-100 ... -50 °C / -148 ... -58 °F) ±0.4 % + 0.5 °C / 32 °F (-50 ... 1300 °C / -148 ... 2372 °F)

Technical data of PCE-T 260 temperature PT 1000

Measuring range	-10 ... 70°C / 14 ... 158°F
Resolution	0.1°C / 32°F
Accuracy (device only)	±1.2°C / 34°F

Technical data of PCE-T 260 temperature IR

Measuring range	-30 ... 305 °C / -22 ... 581 °F
Resolution	0.5 °C / 33 °F
Accuracy	±3 % or ±3 °C / ±37 °F
Emissivity	0.95 fixed
Spectral range	6 ... 14 µm
Optical resolution	3:1

General specifications of PCE-T 260

Display	5 Digits LCD
Interface	RS 232
Power supply	4 x 1.5V AA (UM-3) / Power supply DC 9V
Power consumption	ca. 52-mA
Environmental conditions	0 ... 50 °C / 122°F < 80 % rH.
Memory	Last value, Min, Max
Dimensions	207 x 67 x 39 mm / 8.1 x 2.6 x 1.5 in
Weight	255 g / < 1 lb without batteries

Optional accessories:

Surface probe for thermometer	Order code	TF-101
Magnet.-surface probe	Order code	TF-513
Air probe	Order code	TF-108
Crocodile clip	Order code	TF-109
Isolated surface probe	Order code	TF-102A
High-temperature surface probe	Order code	TF-110A
High-temperature probe (extra long)	Order code	TF-104B
High-temperature probe	Order code	TF-104A
High-temperature wire probe	Order code	TF-121
Flexible temperature probe	Order code	TF-500
Penetration	Order code	TF-106
Screw probe	Order code	TF-119
Compensation / thermo-couple 90 ° C (lfm)	Order code	AGL-90
Compensation / thermo-couple 400 ° C (lfm)	Order code	AGL-400
Compensation / thermo-couple 260 ° C (lfm)	Order code	AGL-260
Reflectiontape 5 m	Order code	REFB

Subject to change without notice

RPM MEASUREMENT
STROBOSCOPE

PCE-LES 100

LED-tachometer with a range of 60 ... 99.990 flashes

The PCE-LES 100 LED stroboscope combines LED technology with compact and accurate electronics which control the sequence and duration of flashes over the entire measuring range. Thanks to LED technology, the LED stroboscope does not required periodical bulbs. The LED handheld stroboscope is ideal for non-contact measurements and to visualize movements on machinery and equipment, giving the viewer the impression that the object is stationary.
Due to its wide frequency range and the different flash durations, the handheld LED stroboscope can be used for a variety of purposes where it is important to make very fast movements visible.

ISO cal option

- handheld stroboscope with LED technology
- (no need to change light bulbs)
- 60 to 99,990 flashes
- possibility to multiply and divide frequency by two
- possibility to work with battery up to 11 h
- 2 bright LEDs (1400 lux @ 50 cm)
- one hand use
- power supply by standard batteries

APPLICATION

TECHNICAL SPECIFICATIONS

Range	60 ... 99,990 rpm
	1 ... 1,666 Hz
Display	5-digit LCD
Impulses/flashes	Possibility of duplication and division/fine tuning
Offset	Yes, 360 °
Accuracy	
60 ... 17,300	±1 LSD
17,300 ... 99,990	±0.009 %
Light source	LED
Light intensity	1400 lux (50 cm distance, 6,000 FPM)
Battery	2 x AA batteries
Operating time	Brightness mode: 8 h, power saving mode: 11 h
Environmental conditions	-10 ... 50 °C / 14 ... 122 °F
Dimensions	124 x 71 x 33 mm / 4.9 x 2.8 x 1.3 in
Weight	173 g / < 1 lb

Subject to change without notice

RPM MEASUREMENT
STROBOSCOPE

PCE-LES 103

LED tachometer with a range of 60 ... 300.000 flashes

The LED stroboscope PCE-LES 103 combines LED technology with intelligent and compact electronics for precise control of the flash frequency. The mobile handheld stroboscope is particularly suitable for non-contact measurement and visualisation of movements on machines and systems. The frequency of the PCE-LES 103 can be continuously adjusted between 1 and 5000 Hz (60 - 300,000 flashes per minute). The high-power LEDs used ensure a particularly long service life of the light sources. The stroboscope achieves an illuminance of 6160 lux at 1000 Hz and a distance of 30 cm. A long operating time is achieved by the large Li-ion battery.

ISO cal option

- brightness: 3 High Power LEDs
- UV models available
- flash frequency up to 300.000 FPM
- 6160 lux at 30 cm / 1000 Hz
- adjustable flash duration and phase shift
- phase shift: -360° to +360°
- automatic shutdown

APPLICATION

TECHNICAL SPECIFICATIONS

Display Type	TFT Color Display
Display Size	2.8 inches
Operating Time	4.5 hours
Additional Information	at flash frequency 100 Hz, 1%, display brightness 70%
Adjustable Auto Shutdown	2 ... 10 min.
Auto Shutdown Deactivatable	Yes
Brightness	11730 lux @ 20cm @ 1000Hz 1 % 6160 lux @ 30cm @ 1000Hz 1 % 2650 lux @ 50cm @ 1000Hz 1 %
Light Color	6500 K
Phase Shift	-360 ... 360 °
Pulse Width	0.01 ... 1% of pulse duration Resolution: 0.01% 0.01 ° ... 3.60 ° of 360 ° Resolution: 0.01 °
Menu Language	German, English, Spanish, French, Italian, Dutch, Turkish, Polish, Russian, Chinese
Protection Class (Device)	IP52
Power Supply	5V DC, 2A
Weight	284 g
Dimensions (L x W x H)	165 x 90 x 35 mm / 6,4 x 3,5 x 1,3 in
Operating Conditions	-20 ... 60 °C, 35 ... 85% r.H
Storage Conditions	-20 ... 60 °C, 35 ... 85% r.H
Instruction Manual Languages	German, English

Frequency

Measurement Range	+60 FPM ... +9999.99 FPM
Resolution	0.01 FPM
Accuracy	0.003 % of the setting or ± 1 LSD

Frequency

Measurement Range	+10000 FPM ... +300000 FPM
Resolution	0.1 FPM
Accuracy	0.003 % of the setting or ± 1 LSD

Frequency

Measurement Range	+1 Hz ... +5000 Hz
Resolution	0.01 Hz
Accuracy	0.003 % of the setting or ± 1 LSD

Batteries and Accumulators

Type	Lithium-Ion Battery
Lithium Info	Lithium in the product (built-in or included)
Capacity	2200 mAh
Voltage	7.4 V
System	Secondary: Rechargeable Battery / Accumulator
Number	1

Further Models:

PCE-LES 103UV-365	3 high power UVA LEDs UVA light 365 ... 370 nm
PCE-LES 103UV-385	3 high power UVA LEDs UVA light 380 ... 390 nm

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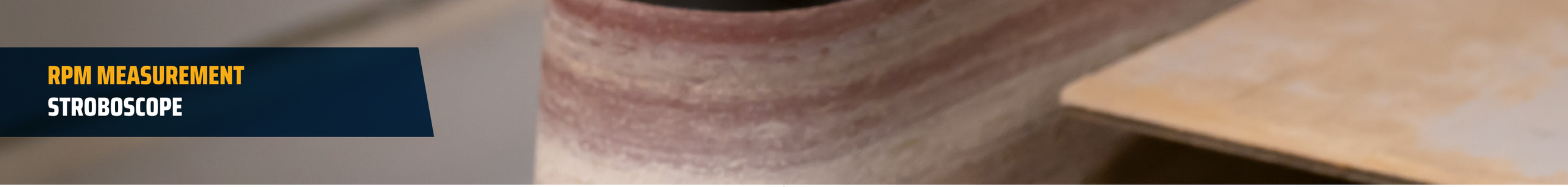


RPM MEASUREMENT
STROBOSCOPE

PCE-DSX 10

with 9 powerful LEDs / Light intensity 1500 lx

The rev counter utilises the so-called " stroboscope effect" to analyse fast movements, vibrations or periodic processes. With the help of 9 high-intensity LEDs, the speed measuring device generates short flashes of light with an illuminance of up to 1500 lx. These flashes of light are emitted in synchronisation with the frequency of the movement to be monitored until the object appears to stand still to the observer. The digital stroboscope allows the user to focus on specific phases or features of the movement in order to detect defects or irregularities in rotating or oscillating parts.

ISO cal option

- measuring range from 60 ... 999999 rpm
- doubling/dividing the FPM by pressing a button
- flash frequency in FPM and Hz at a glance
- fine adjustment step by step, +1, +10, +100 FPM
- IED brightness setting 10 ... 100 %
- light source 9 LEDs
- light intensity 1500 lx
- 2.6" graphic display
- memory for up to 5 FPM presets
- quick one-handed operation

APPLICATION

TECHNICAL SPECIFICATIONS

Visual speed	
Measuring range	60 rpm ... 999999 rpm
Resolution	1 rpm
Accuracy	0.001 %
General technical data	
Frequency	1 ... 16666.66 Hz
Display type	LCD with illumination
Memory medium	Internal memory
Memory capacity	5 values
Operating time	8 h
Light intensity	1500 lx
Phase shift	-360 ... 360 °
Light source	9 LEDs
Menu language	English
Protection class (device)	IP20
Power supply	5 V
Weight	307.5 g
Dimensions (L x W x H)	210 x 90 x 57 mm
Operating conditions	-10 ... 55 °C , 0 ... 85 % r.H
Storage conditions	-10 ... 55 °C , 0 ... 85 % r.H

Subject to change without notice

RPM MEASUREMENT
STROBOSCOPE

PCE-DSX 20 WITH TRIGGER INPUT

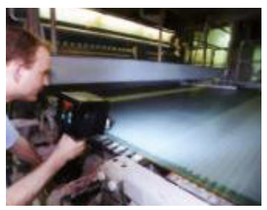
Portable, stroboscope for the professional in operation

The stroboscope is usually used for speed or vibration measurement or for motion observations. This stroboscope has a small design and is light in weight. This allows the stroboscope to be conveniently used even when measuring in hard-to-reach places. The device is the optimal tool for the practitioner. The flash rate is set via a rotary knob on the stroboscope and displayed on a digital display. Continuous operation is easily possible with the stroboscope. The device also has a trigger input, which allows external triggering or synchronization. The supply voltage is ensured by mains cable. The half or double speed can be selected via the keyboard.

ISO cal option

- Speed: 50 ... 35000 RPM / FPM
- Flash frequency
- phase shift
- Lamp type: Xenon flash
- Flash response time: 10 ... 30 µs
- With trigger input

APPLICATION



TECHNICAL SPECIFICATIONS

Function	**Lightning / speed**
Area	50 ... 35000 RPM / FPM
Resolution	< 1000 PRM: 0.1 RPM < 9999 RPM: 1 RPM < 35000 RPM: 10 RPM
Accuracy	± (0.05% of measured value + 2 Dgt)
Function	**Flash frequency**
Area	0.833 ... 583.3 Hz
Resolution	< 599.9 RPM: 0.001 Hz < 5999 RPM: 0.01 Hz < 35000 RPM: 0.1 Hz
Accuracy	± (0.05% of measured value + 2 Dgt)
Function	**Phase shift**
Area	0 ... 359°
Resolution	1°
Accuracy	± (0.1% of measured value + 2 Dgt)
Function	**Ext. Trigger**
Area	0 ... 1200 ms
Resolution	< 1000 PRM: 0.1 RPM < 9999 RPM: 1 RPM < 35000 RPM: 10 RPM
Accuracy	± (0.1% of measured value + 2 Dgt)
Level ext. trigger	High: 2.5 ... 12V Low: < 0.8V
Lamp type	Xenon flash
Flash response time	10 ... 30 µs
Color temperature	6500K
Flash output	8 joules
Power supply	PCE-DSX 20: 230 V AC 50/60 Hz PCE-DSX 20-US: 110 V AC 50/60 Hz
Current consumption	240-mA @ 3600 FPM
Operating conditions	0 ... 50°C / 32 ... 122°F, max 80% RH
Dimensions	230 x 110 x 150 mm / 9 x 4.3 x 5.9 in
Weight	About 1145 g / 2.5 lbs

Subject to change without notice

RPM MEASUREMENT
STROBOSCOPE

PCE-DSX 100

With coarse and fine adjustment / 36 bright LEDs

The stroboscope is a handy device for measuring the speed of objects with a measuring range of 60 to 20,000 RPM. The stroboscope is suitable for inspecting objects with periodic movements and for detecting faults. The stroboscope enables precise measurements through fine and coarse adjustment. With the fine adjustment, the speed can be changed in small steps: +0.1 RPM for speeds below 1000 RPM and +1 RPM for speeds above 1000 RPM.The coarse setting allows larger changes: +10 RPM for speeds below 1000 RPM and +100 RPM for speeds above 1000 RPM.
he flash light source with over 36 LEDs generates bright flashes of light for optimum measurements. The automatic switch-off after 5 minutes of inactivity saves energy and extends battery life.

ISO cal option

- Measuring range from 60 ... 20000 RPM
- Automatic switch-off
- 2.1" LC display with illumination
- Data storage function for up to 10 values
- Coarse adjustment in steps, +10, +100 RPM
- Fine adjustment in steps, +0.1, +1 RPM

TECHNICAL SPECIFICATIONS

Visual speed	
Measuring range	60 RPM ... 999.9 RPM
Resolution	0.1 RPM
Accuracy	0.05 %
Visual speed	
Measuring range	1000 RPM ... 20000 RPM
Resolution	1 RPM
Accuracy	0.05 %
General technical data	
Display type	LCD with illumination
Display size	2.1 inch
Storage medium	Internal memory
Memory capacity	10 values
Automatic switch-off	5 min
Light intensity	approx. 1400 lx @20cm @10000 RPM
Light source	36 LED's
Menu language	English
Protection class (device)	IP20
Weight	180 g
Dimensions (L x W x H)	180 x 68 x 56 mm
Operating conditions	0 ... 50 °C , 10 ... 85 % r.H
Storage conditions	0 ... 50 °C , 10 ... 85 % r.H

APPLICATION

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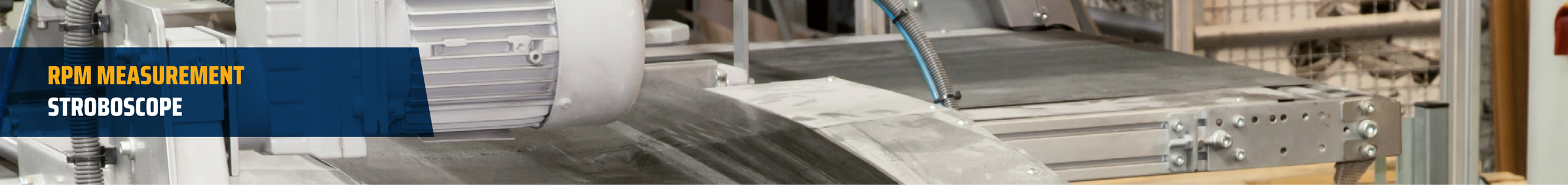


RPM MEASUREMENT
STROBOSCOPE

PCE-LES 350

Light source 144 LEDs / illuminance: 6270 lux @ 1200 FPM at 20 cm

Our Stroboscope / Stroboscope Light offers the possibility of precisely recording and analysing fast movements. With a measurement range of 50 to 12000 FPM and a high accuracy of 0.01 %, movements at different velocities can be analysed with high precision. Our Stroboscope / Stroboscope Light uses 144 high-performance LEDs to generate short, intense flashes of light that are emitted at regular intervals.

These flashes are synchronised with the movement or machine being examined, giving the impression that the movement is frozen or extremely slow. This phenomenon is based on the proven principle of stroboscopy, in which the eye only perceives intermittent images of fast-moving objects through discrete flashes of light.

ISO cal option

- frequency 50 ... 12000 FPM
- doubling/division of FPM at a keystroke
- light source 144 LEDs
- flash frequency units: FPM, Hz, m/min
- integrated Li-ion battery
- adjustable flash duration 1 ... 250 min
- qick one-hand operation
- illuminance: 6270 lux @ 12000 FPM / 20 cm

APPLICATION

TECHNICAL SPECIFICATIONS

Frequency	
Measurement range up to	50 ... 12000 FPM
Resolution	0,1 FPM
Accuracy	±0.01 % v.Mw.
Frequency	
Measurement range up to	1 ... 200 Hz
Resolution	0,01 Hz
Accuracy	±0.01 % v.Mw.
General technical data	
Units	Hz, f/m, m/min
Display type	Graphic LCD
Operating time	4 h
Automatic power-off from...to	1 ... 250 min.
Luminous intensity	6270 Lux @ 12000 FPM / 20 cm
Pulse width	8 ... 50 µs (±1µs)
Light source	144 LED´s
Menu language	English, Chinese
Protection class (device)	IP20
Power supply	100 ... 240 V AC | 50 ... 60 Hz, 0.5 A
Connector type	Device-europlug
Weight	435 g
Operating conditions	0 ... 50 °C , 0 ... 95 % r.F
Storage conditions	0 ... 50 °C , 0 ... 95 % r.F
Capacity	2600 mAh
Dimensions (L x W x H)	203 x 80 x 85 mm

Subject to change without notice

RPM MEASUREMENT
FIXED LED-STROBOSCOPE

PCE-LES 400

light source 20 LEDs / 1590 lux @ 36000 FPM

A Stroboscope / Stroboscope Light is a device for permanent installation that generates rapid flashes of light with energy-efficient and long-lasting LEDs. With a wide measurement range of 50 ... 36,000 FPM, a high resolution of 0.1 FPM and an accuracy of 0.01 %, it offers precise and reliable measurements. Our Stroboscope / Stroboscope Light can be triggered both internally and externally and supports four external trigger modes. The sensor supply is 12 V and 50 mA with a minimum pulse width of 20 µs. The flash duration varies between 1 and 3 % of the period with a maximum duration of 100 µs. A phase shift of 0 ... 359° can be set and this enables flexible adaptation to different requirements.

ISO cal option

- frequency: 50 ... 36000 FPM
- doubling/division of FPM
- light source 20 LEDs
- 2.4" LC display
- flash frequency units: FPM, Hz, m/min
- illuminance: 1590 Lux @ 36000 FPM / 10 cm
- phase shift: 0 ... 359 °
- flash duration 1 ... 3 %, max. 100µs
- trigger input

APPLICATION

TECHNICAL SPECIFICATIONS

Frequency	
Measurement range up to	50 ... 36000 FPM
Resolution	0,1 FPM
Accuracy	±0.01 % of Rd.
Frequency	
Measurement range up to	1 ... 600 Hz
Resolution	0,01 Hz
Accuracy	±0.01 % of Rd.
General technical data	
Units	Hz, f/m, m/min
Display type	Graphic LCD
Display size	2,4 Inch
Luminous intensity	1590 Lux @ 36000 FPM / 10 cm
Phase shift	0 ... 359 °
Pulse width	Flash duration 1 ... 3 %, max. 100 µs
Light source	20 LED's
Trigger input	greater than + 2.5 V peak, 20 µs min. Pulse width Sensor supply: 12 V, 50 mA
Menu language	English, Chinese
Protection class (device)	IP20
Power supply	220 V AC | 50Hz
Connector type	Schuko plug
Weight	1280 g
Operating conditions	0 ... 50 °C , 0 ... 95 % RH
Storage conditions	0 ... 50 °C , 0 ... 95 % RH
Dimensions (L x W x H)	150 x 115 x 130 mm

Subject to change without notice

RPM MEASUREMENT
STROBOSCOPE

PCE-LES 500

28 high-power LEDs / phase shift 0 ... 359 ° / 2439 lux @ 50,000 FPM, 20 cm

This very robust and precise hand-held stroboscope is used for measurements in demanding industrial environments and is specially designed for maintenance, commissioning and inspection. The way it works is very simple: fast-moving parts are optically "frozen" and thus made visible to the human eye. In this way, defective components or sub-optimal settings can be detected and corrected during operation.

With its large measuring range of 50 to 50,000 FPM, it is versatile and offers precise measurements for a wide range of applications. Its compact size and low weight make it extremely handy and can be taken anywhere. Equipped with 28 energy-saving and long-lasting LEDs as a light source, the Stroboscope / Stroboscope Light guarantees reliable performance and a long service life.

ISO cal option

- frequency: 50 ... 50,000 FPM
- light source 28 LEDs
- illuminance: 2439 lux @ 50,000 FPM / 20 cm
- phase shift: 0 ... 359 °
- external trigger input
- ergonomic handle
- 2 removable rechargeable batteries
- measurement on coils and flat sheets

APPLICATION

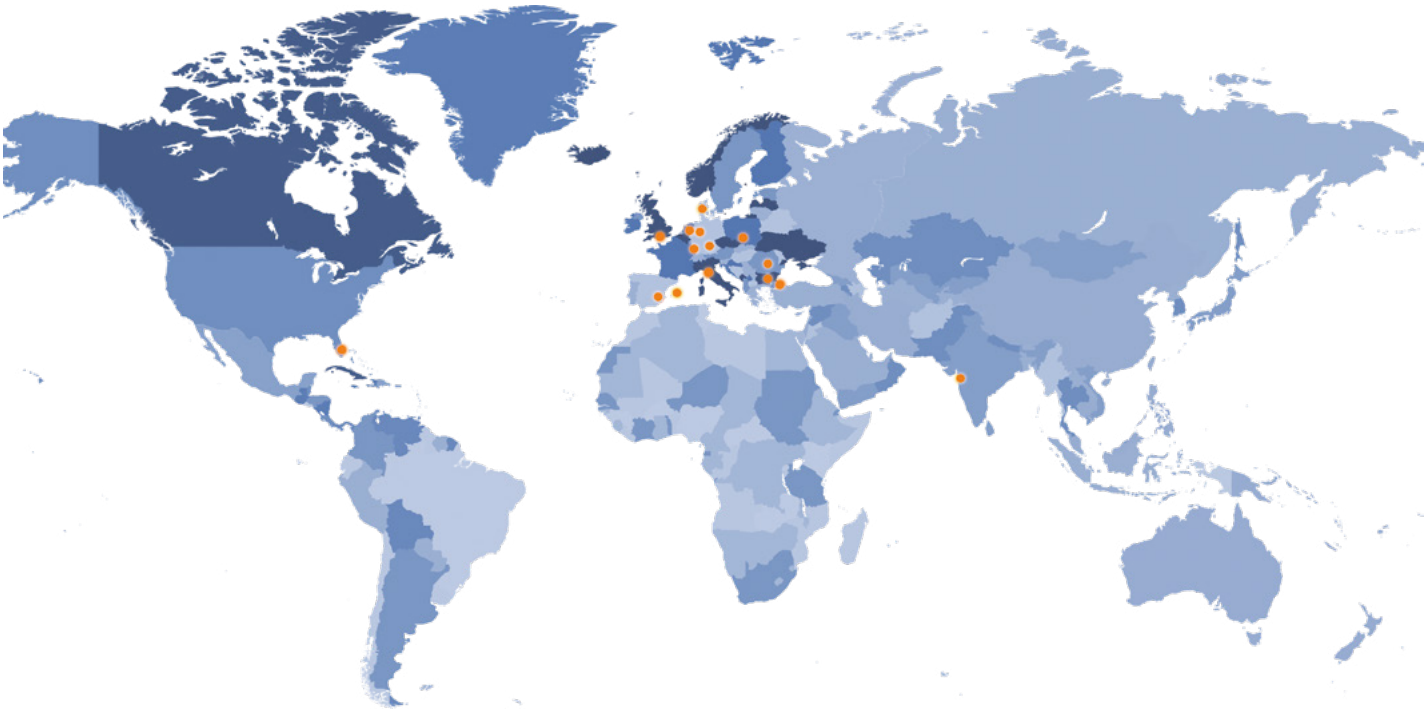
TECHNICAL SPECIFICATIONS

Frequency	
Measurement range up to	50 ... 50000 FPM
Resolution	0,1 FPM
Accuracy	±0.01 % v.Mw.
Frequency	
Measurement range up to	1 ... 1000 FPS
Resolution	0,01 FPS
Accuracy	±0.01 % v.Mw.
General technical data	
Display type	7-segment display
Operating time	4 h
Luminous intensity	2439 Lux @ 50.000 FPM / 20 cm
Phase shift	0 ... 359 °
Pulse width	8 ... 100 µs
Light source	28 LED's
Trigger input	greater than + 2.5 V peak, 20 µs min. Pulse width
Sensor supply: 12 V, 50 mA	
Protection class (device)	IP20
Power supply	14.4 V DC
Weight	903 g
Operating conditions	0 ... 50 °C , 0 ... 95 % r.F
Storage conditions	0 ... 50 °C , 0 ... 95 % r.F
Capacity	3000 mAh
Dimensions (L x W x H)	270 x 130 x 140 mm

Subject to change without notice

COMPANY LOCATIONS WORLDWIDE

PCE INSTRUMENTS SE



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