Videoscope PCE-VE 1500-60200

Videoscope for inspection of machine parts and cavities
Camera diameter 6 mm (0.23") / Cable length 2 m (6.5 ft) / Front camera
Motorized 4-way camera head / IP67

The high-resolution videoscope is ideal for checking components that are difficult to access. Due to the materials used, the practical design and the extensive marking and commenting functions, the mobile industrial endoscope can also be used for particularly demanding tasks. The sophisticated equipment was optimized for technicians and engineers who want to evaluate and document their test results directly on site. With the IP protection class IP 67, the boroscope can also be used for examinations in very dusty environments. Due to the high degree of protection, even immersion in water, salt water or oil for up to 30 minutes does not damage the industrial endoscope.

Possible areas of application for this videoscope include, for example, quality assurance in the manufacture of functional or safety-relevant components in machine, plant and vehicle construction. But the industrial endoscope is not only versatile for the visual inspection of new components, but also for inspections during scheduled and unscheduled maintenance or for building inspections. In addition, many meaningful investigations can be carried out almost non-destructively with the boroscope after accidents, abnormalities or malfunctions.

Camera

The industrial videoscope PCE-VE 1500-60200 is equipped with a front-facing camera. An LED is installed next to the camera lens, which can be used to additionally illuminate the field of view. In order to optimally illuminate the targeted area, the intensity of the light source can be adjusted in 6 steps at the push of a button. With the focus distance of 10 to 100 mm and the very large viewing angle of 120 degrees, many situations can be optically captured well. For the objects in the focus area, the boroscope delivers clear and detailed images with suitable brightness. The camera cable can be pushed further, pulled back or rotated to be able to examine further areas. In addition, the separately movable 60 mm long camera head can be bent in the desired direction with the help of a joystick.

Touch screen

The 7-inch videoscope monitor has a resolution of 1920 x 1200 pixels. It can not only be used to display the current camera view and the saved videos and images. As an easy-to-use touchscreen, it offers many additional functions. For example, the image displayed by the industrial endoscope can be digitally enlarged up to eightfold by double-tapping the image on the touchscreen or by pinching it with two fingers.

Functions can be conveniently started and ended using the icons on the side edges of the touchscreen. Among other things, the displayed image can be easily rotated or mirrored by tapping a symbol in order to be able to evaluate or assign the image content more easily. Changes to the borescope settings and text input to explain the images can also be easily made using the touchscreen of this industrial endoscope.

Endoscope cable

The cable from the videoscope connected to the motor unit also has a diameter of only 6 mm in the camera area and is around 1.85 m long. The steerable camera head is 60 mm long and requires a 50 mm radius to change the direction of view by 90 degrees. The connection between the camera unit and the hand-held device can be easily and securely locked and released again. The cable sheathing is made of braided tungsten, the camera head is made of a particularly durable titanium alloy.

Handling

The industrial videoscope is very easy to operate using the touchscreen, joystick and function keys in the upper area of the handle. The handle lies securely and comfortably in the hand, with which the joystick, the image trigger and almost all function keys can also be used when holding it. The joystick located between the keys can be conveniently operated with one finger. Depending on the situation on site, it is advisable to use the supplied shoulder strap, a tripod or the magnetic holder for longer periods of use.

Menu functions

Thanks to the symbols for buttons and icons, the videoscope enables a largely intuitive use of the many additional functions after a short time. With the help of the picture in picture function, for example, the current live picture can be compared with a saved picture. The live image can either be displayed as a section or as a large background image. Other features allow overlaying the images with a grid and inserting different colored text and markers. This industrial endoscope also has a report menu. In the report, as a PDF document saved, selected images can be organized and explained with captions. You can choose from various keyboard types for text input, which are operated like on a smartphone.

Pictures and videos

The videoscope saves images as JPG and videos in MP4 format. To take a picture, all you have to do is press the shutter button on the handle or tap the icon on the touchscreen. The recordings can be stored in the internal memory or saved directly to an SD card or USB stick. Using the special functions of the industrial endoscope, any points on the saved images can be marked and annotated immediately after the image has been taken. Inserted correct time and date stamps and unambiguous component designations also facilitate the correct assignment later on.

Power supply

The industrial videoscope comes standard with two batteries and a power pack. The batteries can be easily replaced and, if necessary, charged during use. The batteries have a USB C interface for charging. With a capacity of 6,400 mAh, one battery charge is sufficient for more than 3 hours of operation. The current state of charge is displayed directly on the battery when the borescope is switched on.

Accessories

The videoscope comes with a sturdy trolley case for convenient and safe transport of the device. The scope of delivery also includes two device-specific batteries, a power adapter and a USB-C cable for charging the batteries, a shoulder strap, an HDMI cable, a SD memory card with 64 GB memory and an SD card reader with USB connection.

- Motorized 360 degree 4-way articulation with joystick
- Bending angle partly greater than 180 degrees
- Adjustable lighting of the camera field of view
- 7 inch touch screen
- 8x digital zoom
- Image can be rotated and mirrored on the display
- Picture in picture function to compare details
- Marking and labeling functions
- Interfaces: USB-A, USB-C, Mini-HDMI, Audio, WiFi, SD memory card slot
- Storage format for images JPG, for videos MP4
- Report function with images and captions as PDF
- With two rechargeable batteries that can be charged via the mains unit
- Stable trolley case with extensive accessories

Specifications

Diameter	**Ø6 mm / 0.23"**
Cable length	**2 m / 6.5 ft**
Camera direction	0°
Resolution	1 MP
Focusing range	10 ... 100 mm / 0.39 ... 3.9"

Further specifications

Material camera head	titanium alloy
Material camera hose	braided tungsten
Material camera lens	glass
Field of view	120°
Illuminance	50,000 lux
Bending direction	360° (4-way camera head)
Bending angle	190°
Display	7" LCD touchscreen
Display resolution	1920 x 1200 pixels
Image format	JPG
Video format	MP4
Image resolution	1280 x 720 pixels
Video resolution	1280 x 720 pixels
Digital magnification	8 times
Memory (internal)	16 GB
Memory (external)	expandable up to 128 GB for ca. 285,000 pictures or 1500 minutes of video recording
Interface	Mini HDMI, USB-A, USB-C (only for data transfer) audio interface, WiFi
Power consumption (endoscope)	10 W
Operating time	>3 hours
Battery	7.4 V (4 x 18650), 6400 mAh, removable
Battery (charging)	12 VDC, 3 A
Mains adapter	primary: 100 ... 240 VAC 50/60 Hz, 1.5 A secondary: USB-C (PD) 65 W maximum 5 VDC, 3 A 9 VDC, 3 A 12 VDC, 3 A 15 VDC, 3 A 20 VDC, 3.25 A PPS1: 3.6 ... 11 VDC, 3 A PPS2: 3.6 ... 20 VDC, 3 A

More information

Datasheet

More product info

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Subject to change

Operating conditions (hand-held device)	5 ... 50 °C / 41 ... 122 °F, <92 % RH, non-condensing
Operating conditions (endoscope cable)	5 ... 80 °C / 41 ... 176 °F, <92 % RH, non-condensing
Storage conditions	5 ... 63 °C / 41 ... 145 °F, <92 % RH, non-condensing
Dimensions	366 x 194 x 137 mm / 14.4 x 7.6 x 5.3"
Weight	handset weight: 1017 g / 35.8 oz endoscope cable with electric motor: ca. 600 g / 21.1 oz battery 550 g / 19.4 oz