

# Videoscope PCE-VE 1500-38200



**Videoscope for visual inspection of engines, transmissions and technical systems  
with front camera / Camera cable approx. 1.88 m long with 3.8 mm diameter  
Motorized 4-way camera head / IP67**

**4-way video boroscope with high-quality 1 megapixel camera and 3.8 mm thin camera hose**

The videoscope was developed for inspections of technical components. With the borescope cable, which is only 3.8 millimeters thick, the current condition of engines, gears, fans, valves and other components can also be visualized and evaluated from the inside. The high-resolution digital camera is arranged in front and has a very large viewing angle of 120 degrees. Six LEDs are placed around the camera, with which the field of view can be illuminated in different brightness levels.

The flexible camera tube has a length of approx. 1.88 meters from the tip where the camera is placed to the thickening in the connection area. The diameter over this length is only 3.8 mm, so that even very small access openings can be used with this industrial boroscope. After the borescope cable has been routed into the area to be examined, the exact position of the camera can be adjusted by pulling, pushing and rotating. In addition, if the current position offers enough room to move, the separately movable camera head can be bent in all directions using a joystick. With this video boroscope it is possible to inspect many details inside components non-destructively. The controllable flexible camera head is 46 millimeters long. When this camera head is bent 90 degrees, it has a bending radius of approximately 35 millimeters.

With this videoscope with a 1-megapixel camera, the image display format can be set to 1280 x 720 pixels or 640 x 480 pixels. If the user opts for the smaller display with 640x480 pixels, the side edges of the image are not covered by menu symbols that are displayed. The image quality of the saved images can be selected between 480, 720 and 1080 pixels image height. It should be noted that when different formats are selected for the display and image storage, the image sections differ because the format difference means that parts of the image are removed at the top and bottom or on the right and left. On the other hand, the format set for the display is adopted for images that are recorded using the freeze function.

## **Extensive image markings as one of the highlights of the PCE-VE 1500 series**

The current industrial videoscopes in this series offer convenient options for labeling the images taken. For example, image details can be easily circled or marked with arrows on the touchscreen and text can also be added. The recordings can be evaluated, labeled and clearly assigned directly on site without additional devices. The handling of these video boroscopes is nevertheless very uncomplicated thanks to the joystick, touchscreen and function keys.

The various device models in the series differ only in terms of the resolutions and viewing directions of the cameras and the diameters and lengths of the borescope cables. With a weight of just over two kilograms, the industrial boroscope can be held with one hand for short periods of use. The function keys in the upper area of the handle and the joystick can also be operated with the same hand. However, the hand-held device can also be carried with the shoulder strap, attached to a tripod or placed or hung up next to the inspection point.

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### **Exchangeable borescope cable with motor**

Another special feature of this videoscope series is the motor for controlling the camera head. Motor, camera cable and camera have been designed as a complete unit so that the connection to the handheld device works quickly and easily. The camera unit can be easily and securely attached to the handset and released again if necessary.

### **Joystick for camera control**

The joystick can be used to change the alignment of the camera head and thus the direction of view of the camera. Operating the joystick bends the moving camera head in the specified direction. In places, bending angles of more than 180 degrees are possible. The joystick is positioned above the handle so that it can be moved with one finger of the hand holding the borescope.

### **Touchscreen functions**

As a touchscreen, the large display allows very easy access to many menus and special functions. Without the touchscreen, some of the functions offered by the industrial borescope would not be possible. This includes, for example, encircling details or placing texts with your finger or a stylus. The display and use of keyboards for text input only works with the touchscreen.

**Zoom:** The images shown on the display can be digitally enlarged several times. To do this, double-tap the image or pull it apart with two fingers. By moving the image with your finger, not only the enlarged section can be checked directly on the VideoBoroscope, but the complete zoomed image.

**Picture-in-picture:** The current picture of the examined object can be immediately compared with a stored picture on the industrial borescope using the picture-in-picture function. By default, the saved image appears large and is overlaid by the smaller live image at the top right. Both images can be zoomed by pulling them apart. By double-tapping the small image, this changes to full-screen display and the previously large image is displayed in small.

**Grid:** Showing the grid allows targeted comparisons of small image sections. The grid divides the current image on the video borescope into 29 rectangles of equal length and width. If the grid is activated, this is also applied to the saved images.

**Watermark:** Not only the grid and the time-date stamp for the images, but also user-specific labels can be activated via the Watermark menu on the industrial borescope. The time-date stamp always appears in small red letters in the middle of the bottom edge of the image. Text color, text size and text position can be set for the user-specific picture stamps. On the one hand, they can be used to transfer designations of the examination object to each saved image. On the other hand, they can be used to add comments to saved images.

**Mark freeze images:** After "freezing" the image by tapping the padlock pictogram on the touchscreen, the VideoBoroscope immediately activates the associated editing menu. When the pen icon is active, simple markings can be drawn on the image with your finger or a stylus. The selected image can then be saved under the current name or as an additional image.

**Report function:** With the report function, reports can be created as PDFs in DIN A4 format on the industrial borescope. Up to twenty of the stored images can be inserted and captioned into these reports.

### **Interfaces**

The videoscope is equipped with the following interfaces: USB-A, USB-C, mini-HDMI, audio, WiFi and a memory card slot for SD cards up to 128 GB.

- ▶ Motorized 360° 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

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# Specifications

Diameter	<b>Ø3.8 mm / 0.15"</b>
Cable length	<b>2 m / 6.5 ft</b>
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

More product info



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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

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