



PES PILOT *HDpro*

The new standard in videoendoscopy

otopront®

PES Pilot HD_{pro}

As the latest addition to the PES family, the Pilot sets a new standard as portable videoendoscopy system with regards to **image quality, handling** and **functionality**.

The PES Pilot is designed to strongly improve the quality and simplify the process of endoscopic examinations. This is achieved with the latest full HD C-MOS chip technology and a touchscreen with **no-loss of contrast**.

With its front-mounted touchscreen and compact dimensions the device can be set up in the user's

working area so that all the functions can be conveniently operated on the **Pilot screen** without the need to move. The camera offers a combination of **full HD** resolution and maximum depth of illumination and so delivers an extremely sharp image of the highest contrast. Numerous IT and connection ports complete the Pilot's technical strengths.

These features distinguish the PES Pilot from conventional endoscopy systems, creating a ground-breaking future-proof design to enable ENT professionals to work more efficiently.

The Pilot is available in both, **9** and **15 inch** screen size



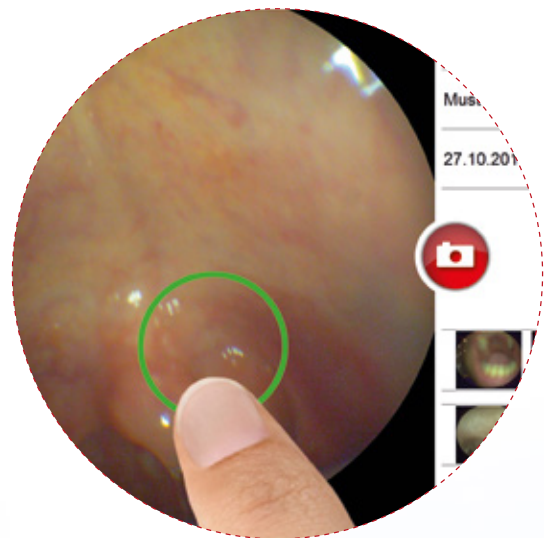
Camera incorporates the latest full HD C-MOS chip technology. Quick-snap system for endoscopes and one-handed operable focus allows convenient operation without interruptions

Superior handling - both at the workstation and on the move

With its front-mounted **touchscreen** and **compact** size the device can be incorporated directly into the working area (e.g. at the ENT unit). All functions can be operated conveniently with the use of the touchscreen, allowing the user to work as efficiently as possible.

Two additional monitors can also be connected to the Pilot screen. So the process of endoscopy can be made easier, for example by placing a **monitor for the doctor** at an angle behind the patient's chair (removing the need to turn the head). Detailed results can be shown to the patient on an additional **patient monitor**. The patient monitor can also be disabled at any time.

A **second camera** can also be incorporated (e.g. for a microscope) as well as an **automatic switching system** between the two cameras. As with all Otopront PES video systems, the Pilot's compact size and ease with which it is set-up, allows the PES Pilot HD*pro* to be used on the move at different locations without requiring an additional monitor.



Findings can be tagged by touching the image directly



Workstation with centrally positioned PES Pilot
with examination and patient screen

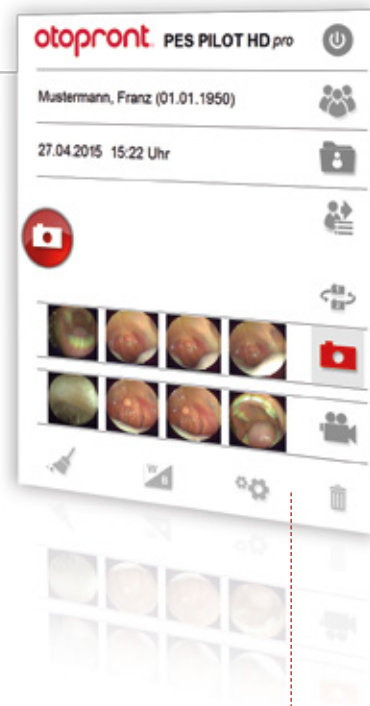
Full range of functions, extremely easy to use

The device can be **operated completely intuitively**. Still photo/video mode is selected **by foot pedal** or by shutter release on the **touchscreen**. Then the findings can be tagged directly on the Pilot screen using the fingertip control. All the functions, such as selecting an image or zoom, can be operated by **finger tip control** or **alternatively** controlled with the **mouse**.

Patient data can be saved directly to the **internal memory** or to a **USB stick**. In addition, data can be exchanged automatically with the **practice IT system** or the **HIS**.



Clearly structured and user-friendly patient management



Intuitive operation and navigation
by touch or **mouse**

Top quality images delivered by the latest chip technology

The PES Pilot deploys the latest C-MOS camera technology with superior resolution greater than **full HD** (1920 x 1200). It allows **maximum use of low light** for **optimum depth of illumination**, resulting in a smooth, well-lit image which is

sharp and rich in contrast. With its **high refresh rate** and **global shutter technology** the PES Pilot is also ideal for **videostroboscopy**.



Ground-breaking handling and superb image quality

- touchscreen operation
- touchscreen available in 2 sizes (9" and 15")
- can connect 2 additional monitors
- can connect 2 cameras
- full HD (1920 x 1200) for live images, video and still photos
- C-MOS technology with high sensitivity to light
- easily integrated into HIS/ practice's IT system
- intuitive software with results processing

Software features

Integrated software:	○ Otopront Application Manager with PES Pilot Module
Operation:	○ clearly laid out and intuitive software ○ operated by touching the Pilot touchscreen or with mouse and keyboard ○ touchscreen can also be operated with gloves ○ photo/video shutter released by touch, mouse or foot pedal
Range of functions:	○ taking videos and still photos (MPEG and JPEG, full HD) ○ photos can be taken while video recording ○ photo creation from recorded videos ○ managing patient and examination data ○ printing and saving results and exporting them via GDT protocol ○ processing results and tagging on screen or with the mouse ○ comparing 4 stills of results, single image view, zoom ○ by touch or with the mouse ○ findings tagged by touching the image (Finding Fingertip Marker)
Hardware control:	○ manage and control several cameras, optional automatic camera switch (e.g. between microscopy and endoscopy) ○ control up to 2 external monitors, switching them on and off from the Pilot screen

Technical data

Model: PES Pilot HD_{pro} with 9 inch touchscreen
PES Pilot HD_{pro} with 15.6 inch touchscreen

System:

- o high performance system with dual core processor
- o 128 GB internal SSD memory (up to 500 GB optional) for approx. 15 hours video recording or 10,000 images

Hardware interfaces:

- o data storage on USB stick
- o 2 LAN ports for connecting to printer and practice's IT system
- o up to 2 monitor interfaces (DVI/ HDMI)
- o connections for mouse and keyboard, wireless optional

Communication interfaces:

- o easily integrated into practice's IT system via GDT protocol
- o automatically detects practice's IT system, optionally with a keystroke
- o total integration into HIS and PACS via standard interfaces (HL7, DICOM compliant)
- o optional transfer of video data, communication with worklists (e.g. DICOM video, DICOM worklists)

Touchscreen:

- o screen can be tilted forwards and backwards approx. 45°
- o size: 9 or 15.6 inch
- o touch function: capacitive (so can be operated without loss of contrast or brightness)
- o resolution: (1920 x 1200) (large full HD)

- o brightness: 400cd/m², LED backlight, contrast: 700:1
- o viewing angle: 178° horizontal and vertical

Camera:

- o up to 2 cameras on one PES Pilot
- o sensor chip: 1/2" C-MOS chip technology with maximum use of low light and colour tone
- o resolution: (1920 x 1200) (large full HD), 2.23 MP
- o shutter device: global shutter technology for optimum videostroboscopy
- o maximum number of images per second: 180
- o lens: 40 mm, quick focus
- o lens connection: C-mount

Case:

- o material: sheet steel, painted, available in all RAL shades
- o optional lift handle for transportation

Dimensions:

- o case: 310 x 210 x 45 [mm]
- o screen: 9": 257 x 149 x 18 / 15": 415 x 240 x 25 [mm]
- o weight: 9": 4.2 kg / 15": 6.5 kg

Hygiene:

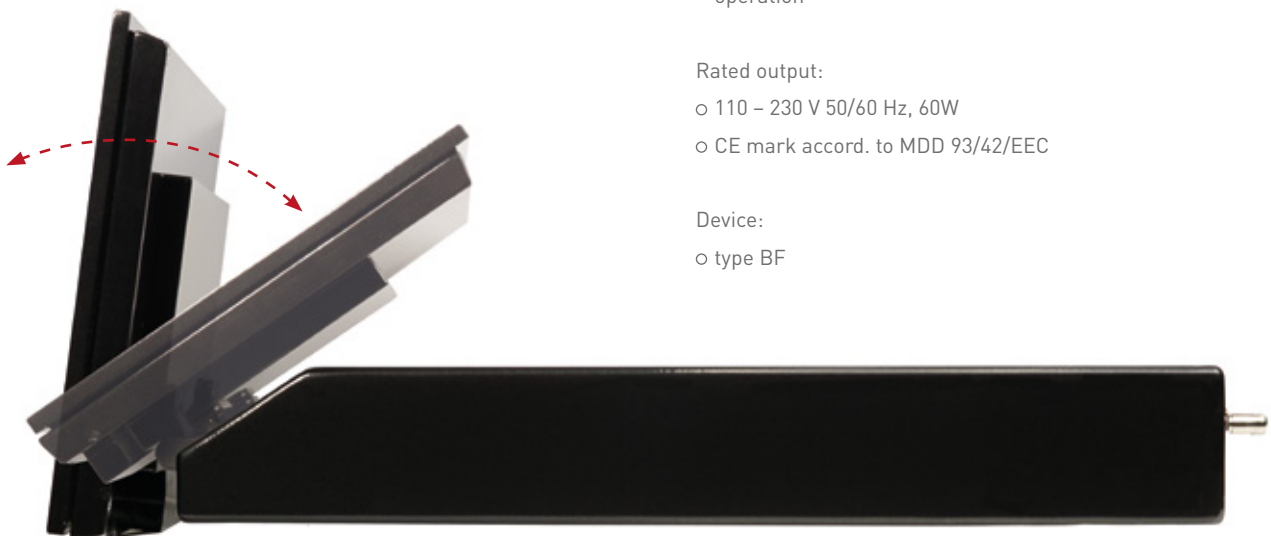
- o camera system together with cable can be fully inserted
- o retractable film can be pulled over touchscreen for safe operation

Rated output:

- o 110 – 230 V 50/60 Hz, 60W
- o CE mark accord. to MDD 93/42/EEC

Device:

- o type BF



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PES Pilot HDpro STROBOSCOPE

Professional display quality for phoniatics

Compact, yet complete:

- Full HD image and video capture
- LED stroboscope light source
- 15" touch screen and computer

Crisp and sharp images through precise, extremely short flashes, high resolution by Full HD

The **highly efficient otopront LED light source** specially developed for stroboscopy allows very short exposure times, which together with the Full HD camera creates crisp and sharp images of the movements of the vocal cords. With this the PES PILOT HDpro stroboscope plays in the league of professional stroboscopy towers, yet in a compact design.

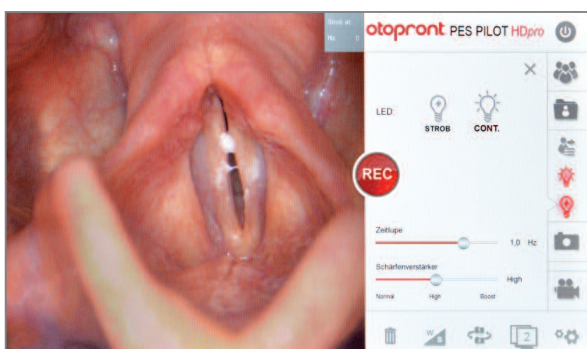
Intuitive to use, frame-by-frame analysis, DICOM compliant

The pilot software has been enhanced by useful stroboscopy features.

Captured videos can be analysed frame-by-frame, played back in ultra slow motion and cut later.

Photos can then be extracted from the video – including dB and Hz numbers.

Convince yourself online!



PES Pilot HDpro stroboscope – video example
visit www.otopront.com/strobo
or tag the QR-Code

The video has **not** been processed and matches the PES Pilot HDpro stroboscope original recordings.



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Optional Extensions

Chip-on-the-tip

The stroboscope can be optionally equipped with the otopront Chip-on-the-tip video nasolaryngoscope. Simple plug & play connection and ergonomic handling allows easy operation.

Video examples of the Chip-on-the-tip camera see:
www.otopront.com/strobo



Flexible Chip-on-the-tip-endoscope, Ø 3.9 mm,
CCD Chip, resolution 500 x 582 (291,000 pixel)

Strobo-Cart

Flexible placement thanks to compact dimensions allows space-saving installation directly on the unit. Optionally, the stroboscope can be positioned on to individually configurable trolleys.



The picture shows the stroboscope on a trolley
with printer and storage quivers for endoscopes

Specifications and technical data

Contents as videoendoscopy-system PES Pilot HDpro 15 inch with the following additions:

Stroboscope operation:

- Operation via touchscreen or foot pedal
- Freely adjustable slow motion
- Free adjustable sharpness amplifier with boost mode
- Onscreen Hz and dB indication
- Optional video editing
- Frame-by-frame analysis; single image extraction

LED stroboscope light source:

- Operating modes: continuous and stroboscopy
- Photocell in the light input
(for effective prevention to dazzling)
- Color temperature: 4000 K
- CRI: >92%
- Lifetime min. 10,000 hours
- Virtually noiseless

Microphone & Speaker:

- Optionally integrated in the camera head
- 70 to 12,500 Hz
- Integrated speaker

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