



DEDICATED TO THE TRUE
PIONEERS OF SURGERY.

NEUROSURGERY

SEE MORE. STAND TALL.

Aesculap Aeos®
DIGITAL SURGICAL MICROSCOPE PLATFORM

SEE MORE

WITH THE Aesculap Aeos®.



Perfect vision is essential for neuro and spine surgery. For many decades, optical surgical microscopes have served surgeons worldwide well – but they do have certain limitations.

It's time for Aesculap Aeos® ...

... Superior field of view & depth of field

- 16:9 aspect ratio for 50% more information at a glance compared to a round image
- Superior depth of field for more information at once

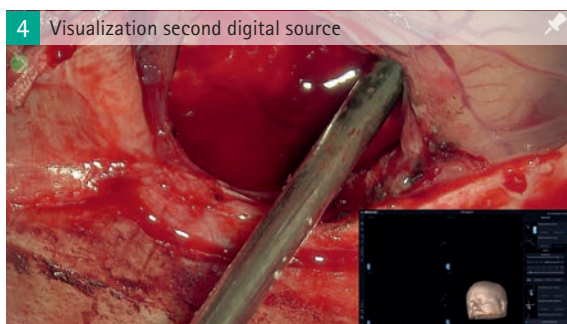
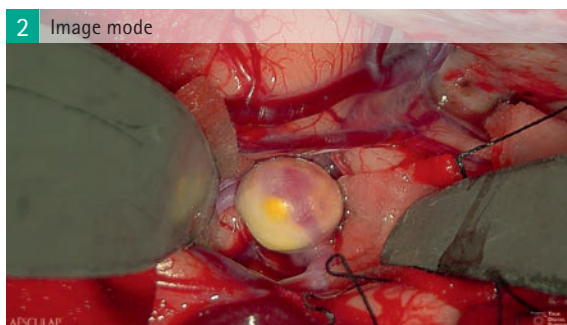
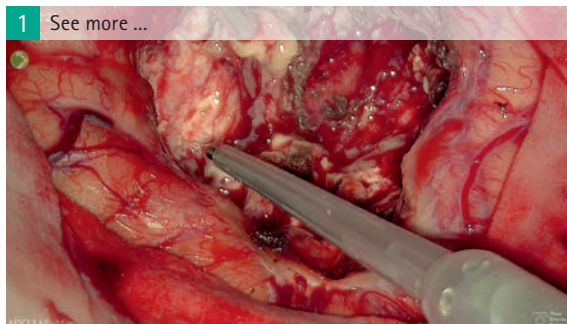
... Improved teamwork and teaching

- Multiple monitor capabilities during surgery provides the surgeon and the entire OR team with the same image quality
- Seeing the same allows for better teamwork and teaching



... Superior illumination of deep and narrow cavities

- Illumination is coaxially aligned with optical path
- Light sensitive High Dynamic Range (HDR) sensors reduce the need for high light outputs causing heat
- LED technology contributes to a cool operative field

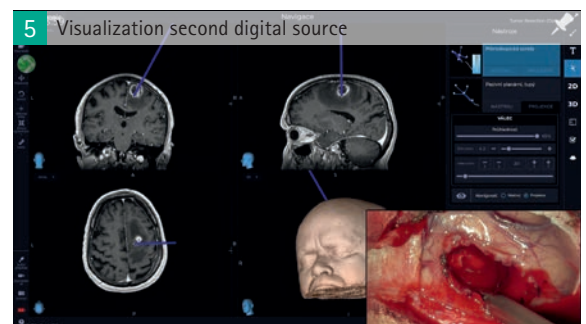
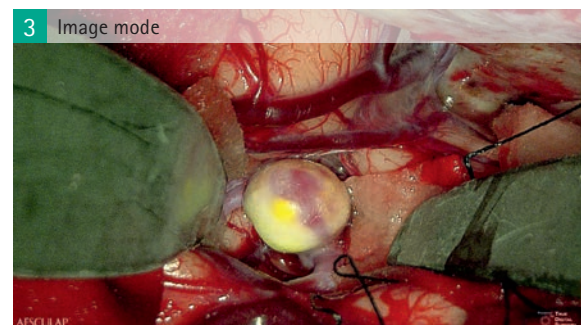


... 10x optical zoom & digital imaging

- 10x PURE optical zoom. Enjoy full resolution at any zoom level
- Up to 95x magnification on the 4K 3D 55" monitor
- High Dynamic Range (HDR) imaging
- Five digital image modes enable enhanced surgical views
- Visualize a second digital source on the same monitor at the press of a camera button

Fig. 1, 4, 5:
Courtesy of ass. Prof. Radim Lipina, University Hospital Ostrava

Fig. 2, 3:
Courtesy of Prof. Dr. Jürgen Konczalla, University Hospital Frankfurt



SEE MORE

WITH THE Aesculap Aeos®.

Aesculap Aeos® offers visualization beyond the human eye. LED powered 3D fluorescence modes for vascular and tumor surgery allow to see more...



... Backlight Illuminated 3D ICG Fluorescence

- Digital InfraRed 800
- 3D ICG Fluorescence Visualization on Surgical monitor with optional backlight illumination to visualize surrounding structures
- Playback with slow-motion

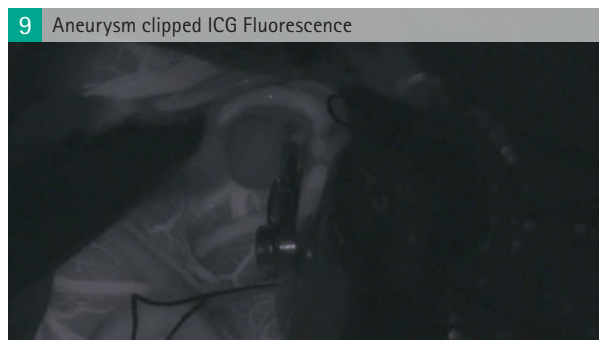
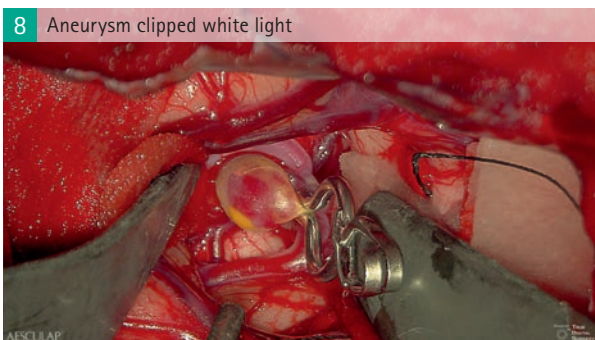
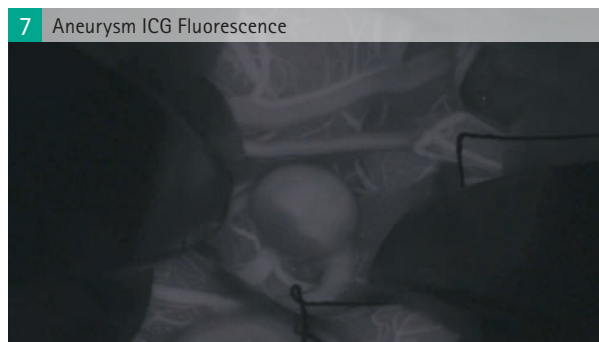
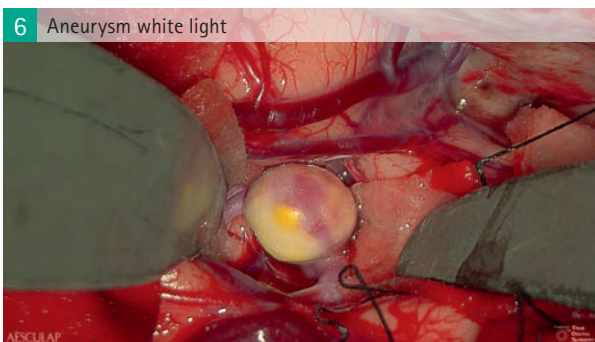
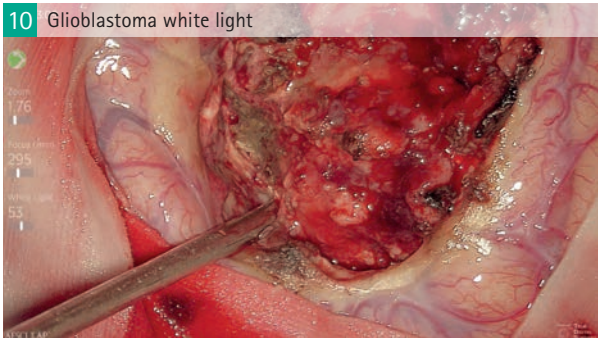


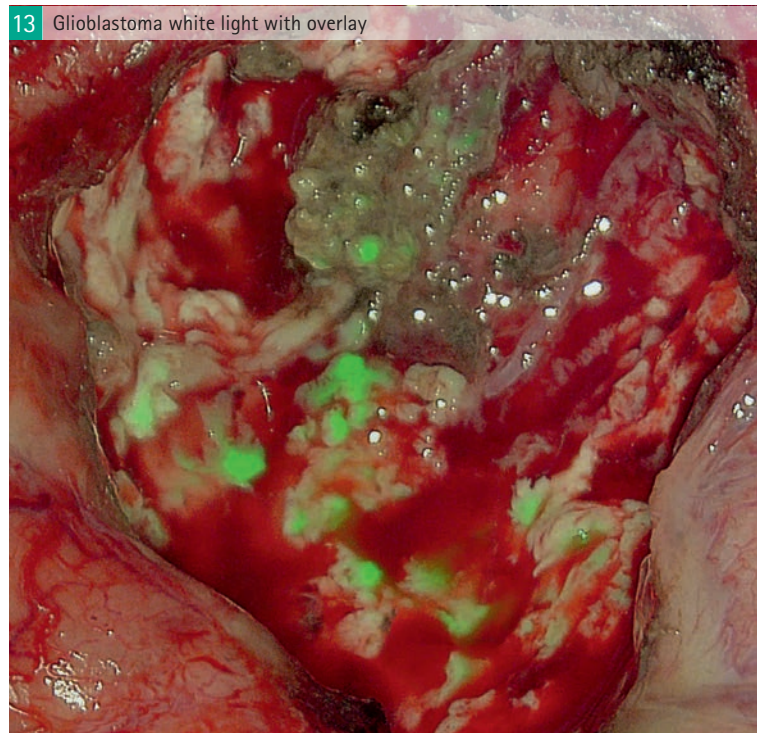
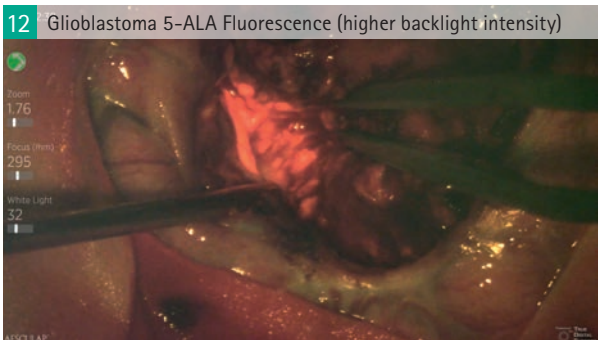
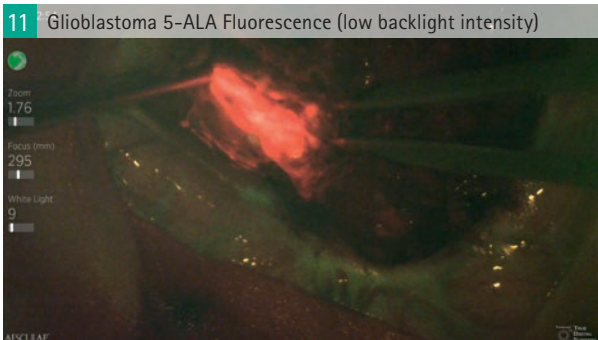
Fig. 6-9: Courtesy of Prof. Dr. Jürgen Konzalla, University Hospital Frankfurt



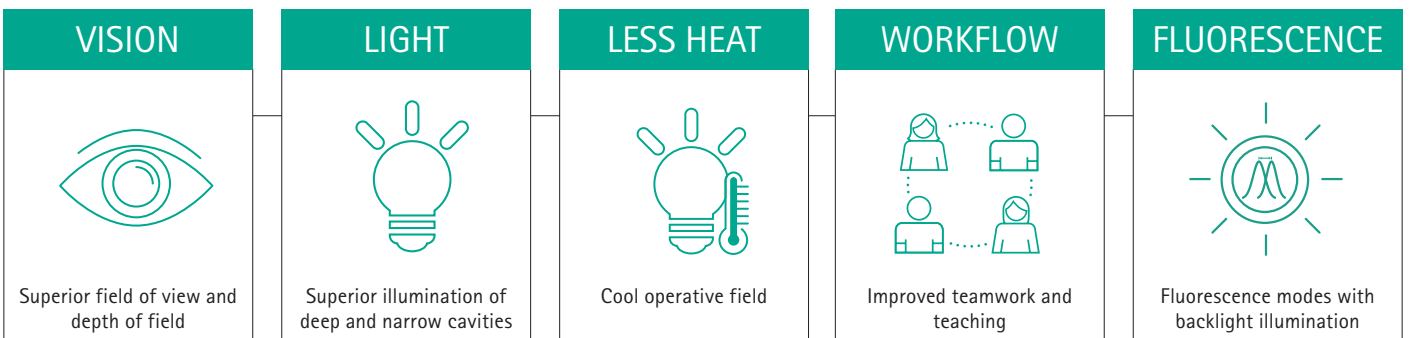
... Backlight Illuminated 3D 5-ALA Fluorescence

- Digital UltraViolet 400
- 3D 5-ALA Fluorescence Visualization with optional backlight illumination to visualize surrounding structures
- Optional overlay

Fig. 10-13: Courtesy of ass. Prof. Radim Lipina, University Hospital Ostrava



» Your benefits at a glance:



STAND TALL AND BE EFFICIENT

WITH THE Aesculap Aeos®.

The ergonomic challenges and the inefficiency resulting mainly from repositioning and readjusting the system reflect further challenges of optical microscopes.

It's time for Aesculap Aeos® ...



... Ergonomic Heads-Up surgery

- Unrestricted, unobstructed view allows the surgeon, not the microscope, to determine ergonomics
- Integrated boom arm (optional) provides additional flexibility to position the monitor in a convenient location

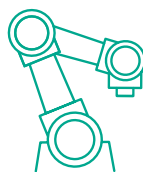
» Your benefits at a glance:

ERGONOMICS



Heads-up surgery

ROBOTICS



Efficient robotic-assisted features

LESS COSTS



LED illumination

Aesculap Aeos® allows for a more efficient workflow thanks to robotic-assisted features ...



Fig. 14: Lock on target: Pivot around a fixed focal point

... Robotic-Assisted precision

- Efficient robotic-assisted positioning
- Hands-free positioning (whole arm range)
- Sub-millimeter precision
- Semi-automated positioning: Lock-on-target, Waypoints, Vector Movements
- Post-movement autofocus
- Hand, foot and touchscreen controls

... Keeping cool regarding costs

- No running costs for illumination due to LEDs with average lifetime of 50.000 h for White Light AND Fluorescence



15



16

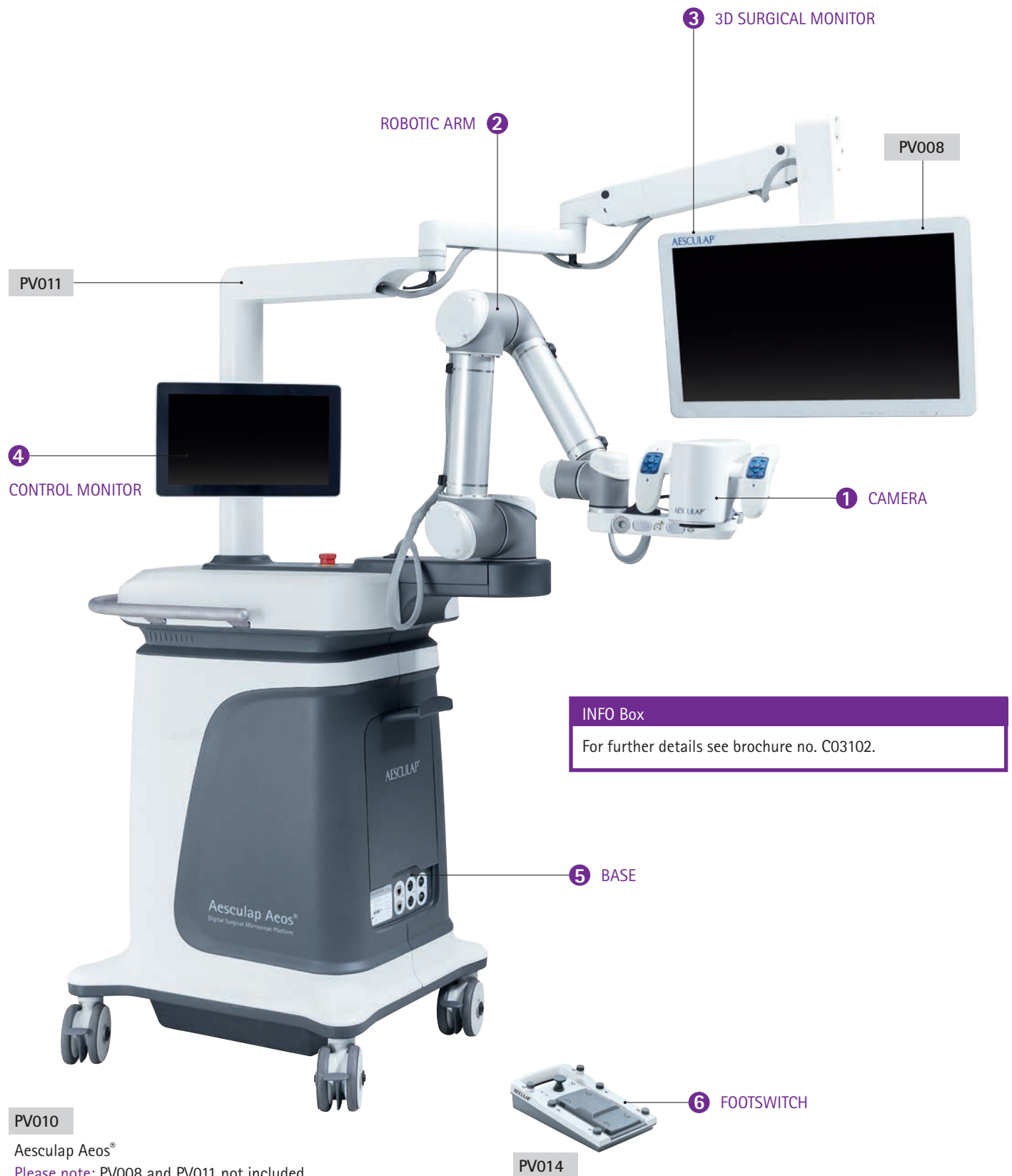


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Fig. 15-17: Waypoints: Seamlessly return to a previously saved location, including zoom and focus

VISUALIZATION

Aesculap Aeos® - DIGITAL SURGICAL MICROSCOPE PLATFORM.



1

CAMERA

- 10 x Optical zoom
- Working distance 200 – 450 mm
- HDR imaging
- Coaxial direct LED illumination
- 3D backlight illuminated fluorescence (optional)

2

ROBOTIC ARM

- 6-axis robotic arm
- Manual positioning
- Automatic / Robotic-assisted positioning
 - Lock-on-target
 - Waypoints

3

3D SURGICAL MONITOR

- 26", 31", 32" and 55" models*
- Full HD and 4K UHD models*
- Passive 3D technology

*not all models integratable in base

4

CONTROL MONITOR

- 15.6" monitor size
- Touchscreen

5

BASE

- 3D surgical monitor integratable (optional)
- 3D recording
- Video outputs: HDMI, DP
- Video inputs: HDMI, 6G-SDI to integrate external sources such as endoscopic cameras
- Other interfaces: USB, Gigabit-LAN
- DICOM (optional)

6

FOOTSWITCH

- Wireless / Cabled
- Programmable buttons
- Joystick

PRODUCT OVERVIEW

PV010

Aesculap Aeos®

PV014

Footswitch, wireless

PV012SU

Sterile Drape,
PAK = Package of 5 pieces

SURGICAL MONITORS AND MONITOR STANDS

PV011

Upgrade kit for 3D monitor
integration (PV008)

PV008

26" Full HD 3D monitor

PV016

Mobile monitor stand
(for 55" monitor)

PV015

55" 4K 3D monitor

PV818

Mobile monitor stand
(for PV644 & PV008)

PV644

31" 4K 3D monitor

PV648

32" Full HD 3D monitor

SOFTWARE MODULES

PV022

Software module DUV 400

PV023

Software module DIR 800

PV024

Software module DICOM

ACCESSORIES

PV030

White balance cards
PAK = Package of 5 pieces

PV031

Keyboard, wireless

PV032SU

Test card for DUV 400

PV033SU

Test card for DIR 800,
PAK = Package of 10 pieces

PV034

Locking HDMI cable, 5 m

PV035

HDMI cable, 10 m

PV052

DP-HDMI cable, 5 m

PV053

DP-HDMI cable, 10 m

PV056

DP-DVI cable, 5 m

PV057

BNC cable, 5 m

FS096

Mains cord orange, Ang./
Europe

FS097

Mains cord orange, Ang./UK

FS098

Mains cord orange, Ang./
Japan/USA/Canada

PV621

3D polarization glasses
PAK = Package of 15 pieces

PV622

3D anti-fog glasses
PAK = Package of 5 pieces

PV623

3D polarization glasses clip

PV624

3D eye shield glasses kit

PV969

HDMI to DVI video signal
cable, 3 m

GK537

Equipotential bonding lead, 5 m

AESCULAP® – a B. Braun brand

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