

CATALOG KS

IMAGE1 S™ Camera System

IMAGE1 S



TC201EN*

IMAGE1 S CONNECT® II, connect module, for use with up to 3 link modules, 4K technology, resolution 3840 x 2160 and 1920 x 1080 pixels, with integrated KARL STORZ SCB or KS HIVE and digital image processing module, power supply 100 – 240 VAC, 50/60 Hz, including:

Mains Cord, length 300 cm
DVI-D Connecting Cable, length 300 cm
DisplayPort Cable, length 300 cm
SDI Cable, length 300 cm
SCB Connecting Cable, length 100 cm
USB Flash Drive, 32 GB
USB Silicone Keyboard, with touchpad, US

* **Available in the following languages:** DE, ES, FR, IT, PT, RU
 Please specify the desired language when placing your order.

Technical Specifications

Video outputs	2x Display Port 1.2, 1x 12G/3G-SDI, 1x DVI-D
Format of signal outputs	max. 3840 x 2160p, 50/60 Hz
Link video inputs	3x
USB interface	4 x USB, (2x front, 2x rear)
Unit communication	1 x 6-pin Mini-DIN

Power supply	200–240 VAC
Power frequency	50/60 Hz
Protection class / degree	1 / CF-Defib
Dimensions (w x h x d)	305 x 54 x 320 mm
Weight	3.1 kg

For use with IMAGE1 S CONNECT® II Module TC201EN



TC304

IMAGE1 S 4U-LINK, link module, for use with IMAGE1 S™ 4U camera heads, power supply 100 – 240 VAC, 50/60 Hz, including:

Mains Cord, length 300 cm
Link Cable, length 20 cm, for use with IMAGE1 S CONNECT® TC200EN or IMAGE1 S CONNECT® II TC201EN

Technical Specifications

Interfaces	1x link output
Power consumption	86 VA
Power frequency	50/60 Hz
Power supply	200–240 VAC
Dimensions (B x H x T)	305 x 54 x 320 mm

Weight	1,86 kg
Cleaning	wipe disinfection
Degree of ingress protection	IPX0
Protection class / degree	1 / CF-Defib

IMAGE1 S™

Camera Head 4U One-Chip 4K UHD and Camera Head 4U RUBINA Two-Chip 4K UHD



IMAGE1 S™ 4U One-Chip 4K UHD camera head, for use with TC304, IMAGE1 S 4U-LINK, module for 4K endoscopy



TH120

IMAGE1 S™ 4U One-Chip 4K UHD Camera Head, S-technologies available, progressive scan, soakable, EtO sterilization, H₂O₂ (hydrogen peroxide), focal length f = 18 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK

Technical Specifications

Frame rate	50 / 60 Hz
Image sensor	One-chip
Resolution	3840 x 2160 pixels
Scanning mode	progressive scan
Lens	fixed focus
Focal length	f = 18 mm
Dimensions (w x h x l)	46 x 37 x 133 mm
Weight	210 g

Cable length	300 cm
Cable routing	angled
Camera head buttons	freely programmable
Grip mechanism	standard eyepiece adaptor
Reprocessing	soakable, EtO sterilization, H ₂ O ₂ (hydrogen peroxide)
S-Technologies	CLARA, CHROMA, SPECTRA*
Degree of protection	in conjunction with camera control unit IMAGE1S™: CF-Defib

* SPECTRA A / SPECTRA B: **Not for sale in the U.S.A.**

IMAGE1 S™ 4U RUBINA, OPAL1® NIR/ICG, Two-Chip 4K UHD Camera Head for use with TC201EN, IMAGE1 S CONNECT® II and TC304, IMAGE1 S 4U-LINK, module for 4K endoscopy



TH121

IMAGE1 S™ 4U RUBINA, OPAL1® NIR/ICG, Two-Chip 4K UHD Camera Head, S-technologies available, for NIR/ICG fluorescence imaging in combination with Power LED RUBINA, OPAL1® NIR/ICG, progressive scan, soakable, EtO sterilization, H₂O₂ (hydrogen peroxide), focal length f = 19 mm, 2 freely programmable camera head buttons. for use with IMAGE1 S CONNECT® II and IMAGE1 S 4U-LINK

Technical Specifications

Frame rate	50 / 60 Hz
Image sensor	Two-chip
Resolution	3840 x 2160 pixels
Scanning mode	progressive scan
Lens	fixed focus
Focal length	f = 19 mm
Dimensions (w x h x l)	150 x 55 x 41 mm
Weight	260 g

Cable length	300 cm
Cable routing	angled
Camera head buttons	freely programmable
Grip mechanism	standard eyepiece adaptor
Reprocessing	soakable, EtO sterilization, H ₂ O ₂ (hydrogen peroxide)
S-Technologies	CLARA, CHROMA, SPECTRA*
Degree of protection	in conjunction with camera control unit IMAGE1S™: CF-Defib

* SPECTRA A / SPECTRA B: **Not for sale in the U.S.A.**



Product details

The New 4K-NIR/ICG Camera Head

- Native 4K image resolution
- OPAL1® NIR/ICG visualization modes: Overlay, Monochromatic and Intensity Map
- S-Technologies available
- Enhanced NIR/ICG telescopes in comparison with previous models and new variants
- Compatible with IMAGE1 S™ 4U-LINK

- Technical details

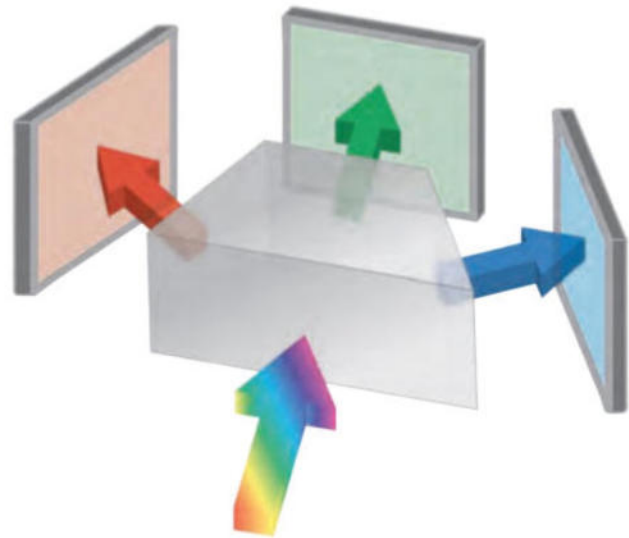
Image sensor resolution	4K
Connection	4U-Line
Fluorescence imaging (NIR/ICG)	yes, in conjunction with POWER LED Rubina®
Fluorescence imaging (Blue Light Imaging, BLI)	no
S-Technologies	CLARA; CHROMA; SPECTRA A + B
Frame rate	50/60 Hz
Image sensor type	CMOS
Number of image sensors	2
Aspect ratio	16:9
Lens	Focus adjustable via focus ring
Zoom function	yes, digital
Focal length	19 mm
Width	41 mm
Height	55 mm
Length	150 mm
Weight	260 g
Cable length	300 cm
Cable, detachable	no



Cable routing	straight
Adaptive zoom	yes, in combination with TC304 and TC201
Camera head buttons	3 buttons, 2 freely programmable
Grip mechanism	standard eyepiece adaptor
Soakable	yes
Autoclavable	no
EO sterilization	yes
H2O2 (hydrogen peroxide)	yes
Wipe disinfection	yes
Sterile concept	single-use covers
Brand	IMAGE1 S Rubina®
Scanning method	progressive scan

<https://www.karlstorz.com/gb/en/product-detail-page.htm?productID=1000108831&cat=1000071971>

Special Features:

- Best image quality and display due to sensor chip technology
- Enhanced signal quality through Digital Signal Processing (contrast and filter enhancement for rigid, semirigid and flexible endoscopes)
- Optimal image size display, regardless of the telescope used, thanks to patented Parfocal Optical Zoom Lens
- Simplified operation reduces camera movement to, e.g., prevent damage to or soiling of the lens
- Consistent illumination due to the auto-exposure system ensures seamless transitions between images, regardless of imaging area or available light
- Functionality at the touch of a button with easy -to-program operating elements via intuitive control of all functions in the sterile area
- Parameters of the OR equipment used, light sources, etc. can be displayed and controlled (KARL STORZ Communication Bus) on the monitor
- Digital video output (DV) for digital recording
- Digital zoom 1 – 2x can be adjusted to 4 levels
- “Freeze Frame” function can be activated via camera head buttons or an external footswitch
- Fluorescence imaging mode available



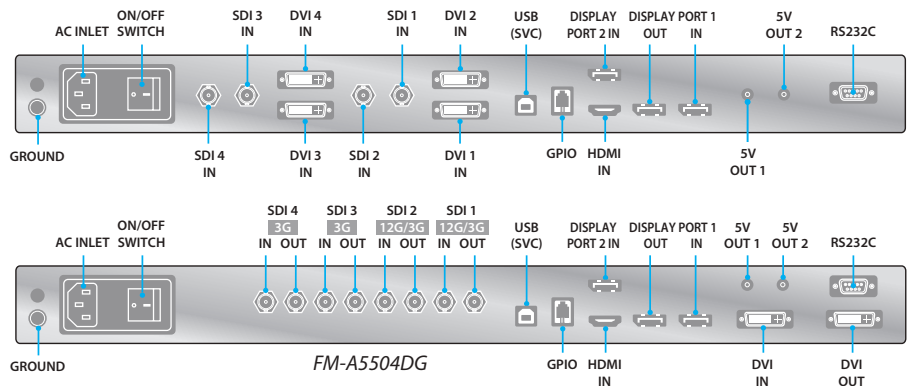
	<p>Zoom: Hier können Sie die Darstellung digital vergrößern.</p>	<p>Zoom: This enables digital magnification of the display.</p>	<p>Zoom: Permite aumentar digitalmente el tamaño de la imagen.</p>
	<p>Adaptive Zoom (Adaptiver Zoom): Diese Funktion kann ausgewählt werden, wenn</p> <ul style="list-style-type: none"> - eine IMAGE1 S CONNECT® II TC201 und ein 4U-LINK in Kombination mit den 4U Kameraköpfen TH120 oder TH121 genutzt werden. Bei Anwendung eines Weißabgleichs erkennt das System die Größe des endoskopischen Bildes unter Anwendung eines individuell optimalen Zoomfaktors. Das endoskopische Bild wird bei kleinen Optiken gezoomt, um das Display vertikal zu füllen. Bei Optiken bei denen das endoskopische Bild die vertikalen Grenzen bereits überschreitet, wird auf Vollbild gezoomt, wobei möglichst wenige Peripherinformationen verloren gehen. <p>ⓘ HINWEIS: Führen Sie vor jedem Gebrauch einen Weißabgleich durch.</p> <p>ⓘ HINWEIS: Wenn das Endoskop während der Operation ausgetauscht werden muss, führen Sie einen Weißabgleich durch, um die endoskopische Bildgröße richtig zu erkennen.</p> <ul style="list-style-type: none"> - eine IMAGE1 S CONNECT® I TC200 oder IMAGE1 S CONNECT® II TC201 und ein D3-LINK in Kombination mit einer 4 mm TIPCAM®1 S 3D genutzt werden. Wenn die Funktion aktiviert ist, wird das endoskopische Bild beim Einstecken der TIPCAM auf ein Vollbild aufgezoomt. - eine IMAGE1 S CONNECT® I TC200 oder IMAGE1 S CONNECT® II TC201 und ein X-LINK in Kombination mit den C-MOS-basierten X-Line Videoendoskopen genutzt werden. Wenn die Funktion aktiviert ist, wird das endoskopische Bild beim Einstecken der X-Line Videoendoskope optimal aufgezoomt. 	<p>Adaptive Zoom: that function can be selected if</p> <ul style="list-style-type: none"> - an IMAGE1 S CONNECT® II TC201 and a 4U-LINK are used in combination with the 4U camera heads TH120 or TH121. When applying a white balance, the system will detect the size of the endoscopic image, applying an individually and optimal zoom factor. Small scopes will be zoomed to fit into the vertical borders of the display. Scopes exceeding the vertical borders are zoomed to full screen with minimal loss of peripheral information. <p>ⓘ NOTE: Perform a white balance before every use.</p> <p>ⓘ NOTE: If the endoscope must be exchanged during surgery, perform white balance for proper detection of the endoscopic image size.</p> <ul style="list-style-type: none"> - an IMAGE1 S CONNECT® I TC200 or IMAGE1 S CONNECT® II TC201 and a D3-LINK can be used in combination with a 4 mm TIPCAM®1 S 3D. If the function is activated, the endoscopic image is zoomed to a full screen when the TIPCAM is inserted. - an IMAGE1 S CONNECT® I TC200 or IMAGE1 S CONNECT® II TC201 and an X-LINK can be used in combination with the C-MOS-based X-Line video endoscopes. If the function is activated, the endoscopic image is optimally zoomed up when the X-Line video endoscopes are inserted. 	<p>Zoom adaptable ("Adaptive Zoom"): puede seleccionarse esta función si:</p> <ul style="list-style-type: none"> - se usan un IMAGE1 S CONNECT® II TC201 y un 4U-LINK en combinación con los cabezales de cámara 4U TH120 o TH121. Al ejecutar un balance de blancos, el sistema detectará el tamaño de la imagen endoscópica, aplicando un factor de zoom individual y óptimo. En los endoscopios pequeños se aplicará un factor de zoom para ajustar la imagen a los bordes verticales de la pantalla. En el caso de los endoscopios que sobresalgan de los bordes verticales, se aplica un factor de zoom para que la imagen se ajuste en modo pantalla completa con una pérdida mínima de información periférica. <p>ⓘ NOTA: Antes de cada aplicación, lleve a cabo un balance de blancos.</p> <p>ⓘ NOTA: Si fuera necesario sustituir el endoscopio durante la intervención quirúrgica, realice un balance de blancos para la detección adecuada del tamaño de la imagen endoscópica.</p> <ul style="list-style-type: none"> - se usan un IMAGE1 S CONNECT® I TC200 o IMAGE1 S CONNECT® II TC201 y un D3-LINK en combinación con una TIPCAM®1 S 3D de 4 mm. Si la función está activada, se ajustará la imagen endoscópica a pantalla completa al insertar la TIPCAM. - se usan un IMAGE1 S CONNECT® I TC200 o IMAGE1 S CONNECT® II TC201 y un X-LINK en combinación con los videoendoscopios X-Line basados en C-MOS. Si la función está activada, se ajustará de forma óptima la imagen endoscópica al insertar los videoendoscopios X-Line.

FM-A5504DS FM-A5504DG

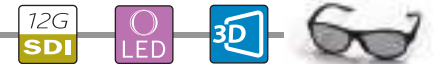


55 inch

- 3840 x 2160 resolution
- Contrast Ratio (typical) 1100 : 1
- Brightness (typical) 500 cd/m²
- Multi window (2, 3, 4) layouts

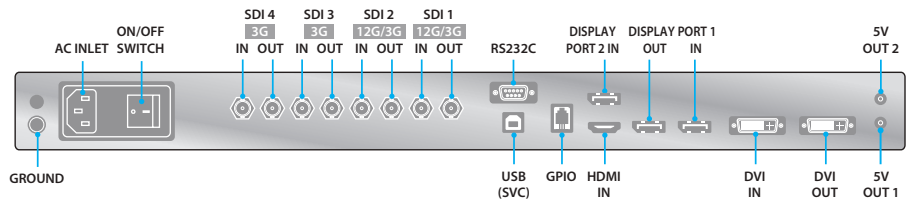


FM-A5505DGC FM-A5505DGC (Rev.01)



55 inch

- 3840 x 2160 resolution • OLED, 3D • Contrast Ratio (Rev.01 peak) 475,000 : 1
- Luminance (Monitor, 2D, Bypass/ Default Mode) Range 87-260 cd/m²
- Luminance Rev.01 (Monitor, 2D, Bypass/ Default Mode) Range 110-575 cd/m²



OLED

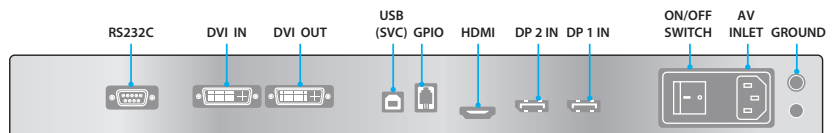
- ✓ Deep Black Levels - High Contrast Ratio
- ✓ Optimal 3D Viewing Angles

FM-A5503DC FM-A5503DC (Rev.01)



55 inch

- 3840 x 2160 resolution • OLED, 3D • Contrast Ratio (Rev.01 peak) 475,000 : 1
- Luminance (Monitor, 2D, Bypass/ Default Mode) Range 87-260 cd/m²
- Luminance Rev.01 (Monitor, 2D, Bypass/ Default Mode) Range 110-475 cd/m²

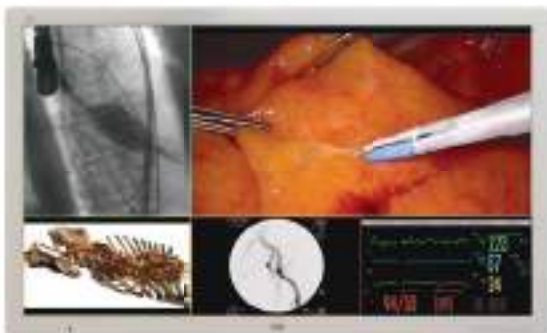
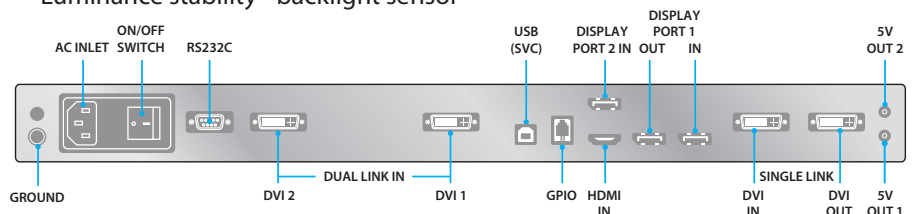


FM-D5801DV



58 inch

- 3840 x 2160 resolution
- Contrast Ratio (typical) 4000 : 1
- Luminance stability - backlight sensor
- DICOM mode
- Brightness (typical) 700 cd/m²



55" 3D 4K Medical Display

FM-A5505DGC



- *OLED technology. High contrast ratio. Perfect blacks.*
- *Reduced bluelight emission and eye fatigue.*
- *Immersive 3D viewing is ideally suited for large screens.*



More Surface Textures More Depth of Field

FM-A5505DGC, the 55" 3D display monitor from FSN, delivers OLED technology for true blacks, better contrast, power efficiency, and lighter weight. The immersive viewing experience of 3D is ideally suited for a large screen of this size.

FM-A5505DGC is compatible with highly specialized visualization equipment used in operating rooms and surgical suites. It is suitable for showing multiple images at sizes big enough to remain visible across the operating room. Picture quality is crystal clear, and the user interface allows for complete control of image color and multi-window layouts.



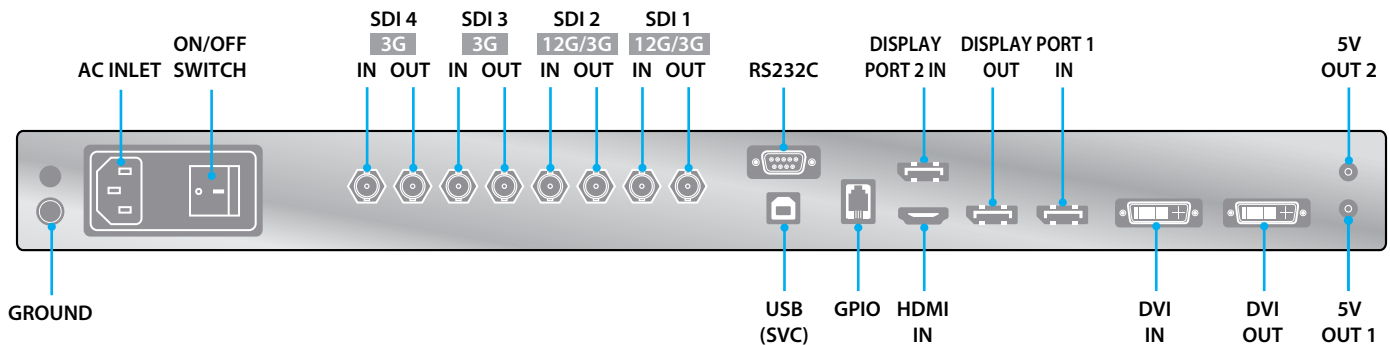
3D eye wear included.



Complete Control

A detailed 3D menu offers control for the best possible image format. Side By Side, Line By Line, Top Bottom, SDI level B-DS, SDI Dual Input.

FSN's attention to engineering details, such as rounded bezel corners, backlit touch buttons, and easy to use interface menu controls, allow for safe and efficient interaction. This large screen delivers everything that professionals need in a 3D, 4K UHD medical-grade monitor.



www.fsnmed.com

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55" 3D 4K Medical Display

FM-A5505DGC



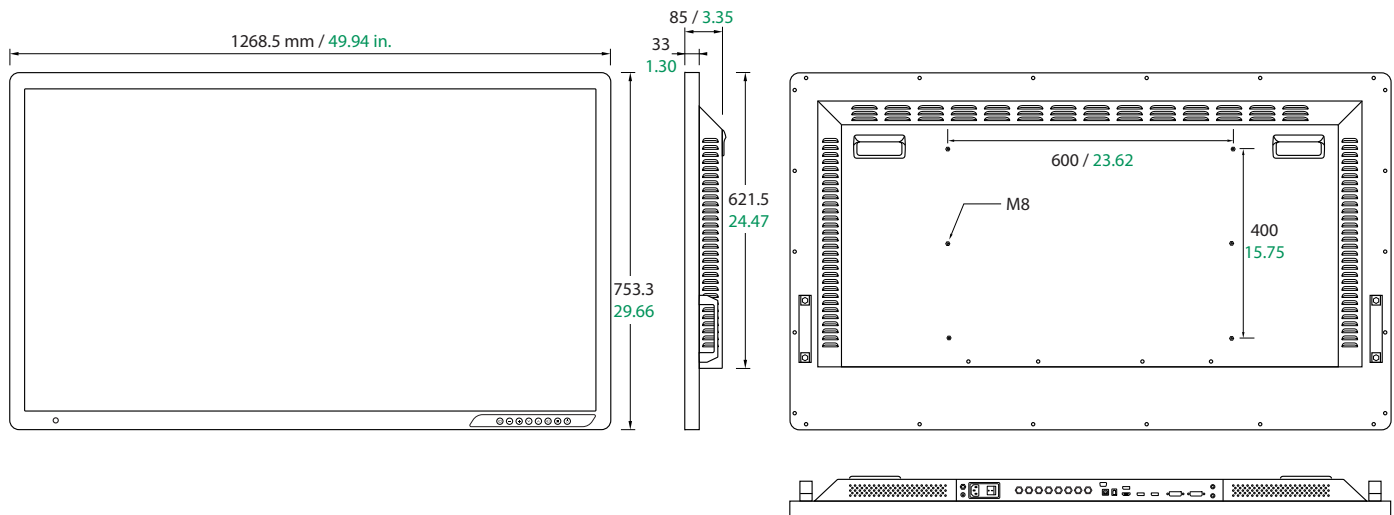
Specifications

General Features

Item	Description
Panel	55 inch OLED
Resolution	3840 x 2160 pixels
Aspect Ratio	16 : 9
Active Area	1209.60 (H)mm x 680.40 (V)mm
Response Time (typical)	0.5 ms (gray to gray)
Number of Colors	1.07 Billion
Brightness (typical)	(2D) 575 cd/m ² peak (3D) 175 cd/m ² peak
Gamut	BT.709 and BT.2020 compatible
Contrast Ratio (typical)	100,000 : 1
Surface Treatment	Anti-glare
Viewing Angle	(2D) R/L 120°, U/D 120° (3D) U/D 8.6°
Input Signal	1 x HDMI (2.0, HDCP 2.2) 2 x DP (1.2 SST) 4 x SDI (3G), 2 x SDI (12G) 1 x DVI (single link, HDMI 1.4, HDCP 1.4)

FSN Medical Technologies products meet EU RoHS Directive 2011/65/EU+2015/863/EU and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) obligations. FSN manages the information flow as required by regulations.

Item	Description
Output Signal	1 x DP 1.2 (SST) 4 x SDI (3G), 2 x SDI (12G) 1 x DVI (single link, HDMI 1.4, HDCP 1.4)
Power Supply	SMPS (AC 100 ~240V)
Power Consumption	250W max
Accessories Included	User manual, AC power cord, DP cable, HDMI cable, DVI-D cable, BNC cable, Remote control and batteries
Unit Dimension	1268.5(W) x 753.3(H) x 85(D) mm 49.94(W) x 29.66(H) x 3.35(D) inch
Package Dimension	1450(W) x 930(H) x 305(D) mm 57.09(W) x 36.61(H) x 12(D) inch
Weight	29.8 kg, 65.7 lbs. (monitor only) 44.7 kg, 98.55 lbs. (shipping package)
Certifications	ANSI/AAMI ES60601-1(UL60601-1), CAN/CSA C22.2 No. 60601-1, FCC Class B, EN60601-1, EN60601-1-2, CE, MDR(EU) 2017/745 Class I Medical Device



Multiple Windows

There is plenty of room on the FM-A5505DGC monitor for multi-window requirements. Choose from PIP, PBP, Triple, or Quad layouts that are preset and ready-to-go.

Specifications are subject to change with or without notice. Doc. # FSN2032 Rev. 4/22

www.fsnmed.com

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Possible Configuration Examples

Note: The lists do not include units

Telepresence:

Rubina®

The new housing design includes a special shelf for equipment.



- UG803 **Subrack**, COR mobile stand, low
- UG811 **Cover**, monitor holder for COR mobile stand
- UG820 **Shelf**, narrow, COR mobile stand
- UG823 **Special Equipment Shelf**, COR mobile stand
- UG854 **Stainless Steel Tube**, COR mobile stand, length 400 mm
- UG857 **Monitor Module**, COR mobile stand













Monitors

The new COR mobile stand is offered with a monitor holder that is suitable for monitors larger than 55".



- UG804 **Subrack**, COR mobile stand, high
- UG811 **Cover**, monitor holder for COR mobile stand
- UG817 **Counterweight**, for monitors larger than 55", COR mobile stand
- UG820 **Shelf**, narrow, COR mobile stand
- UG858 **55"/58" Monitor Module**, COR mobile stand

IMAGE1 S™ RUBINA™ Technology for NIR/ICG Fluorescence Imaging
 based on the IMAGE1 S™ camera platform

	2D / 3D Endoscopy		Accessories for 2D / 3D Endoscopy
Wide-Screen Monitor	 TM350 (32") 4K 3D Monitor or TM450 (55") 4K 3D Monitor		 3D Polarization Glasses Item required for 3D endoscopy with TIPCAM®1 RUBINA™
Camera Control Unit connect module	 TC201 IMAGE1 S CONNECT® II		
Camera Control Unit link module	 TC304 IMAGE1 S™ 4U-LINK		
Camera Head	 TH121 IMAGE1 S™ 4U RUBINA™		
Telescopes	 26003ARA/26003BRA/26003FRA/26003FREA 26046ARA/26046BRA/26046FRA HOPKINS® RUBINA™ NIR/ICG Telescopes	 26606ACA / 26606 BCA TIPCAM®1 RUBINA™	 96240726 NIR/ICG Demonstration Card *
	 20916025AGA VITOM® II NIR/ICG Telescope 0°		
Cold Light Fountain	 TL400 POWER LED RUBINA™		 UF101 One-Pedal Footswitch *
Light Cable	 495NCSC/495NAC/495TIP Fiber Optic Light Cable		

* Optional accessory.



**TIPCAM®1 RUBINA® –
The new 4K/3D NIR/ICG videoendoscope**

TIPCAM®1 RUBINA® provides surgeons with excellent depth perception. This stereoscopic system offering 3D in 4K quality is particularly helpful when performing activities that require spatial vision. Thanks to the modular system design, existing IMAGE1 S™ 2D systems can be upgraded to 3D. Whether for laparoscopy, gynecology, urology or cardiothoracic surgery – the new TIPCAM®1 RUBINA® features a wide range of applications.

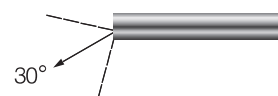
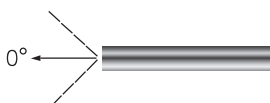
- 4K image chain
- Automatic horizon control for better orientation and handling
- 4K/3D NIR/ICG videoendoscopes with 10 mm diameter as well as 0° and 30° directions of view
- Easy toggle from 3D to 2D
- OPAL1® NIR/ICG visualization modes: Overlay, Monochromatic and Intensity Map
- Easy integration into the IMAGE1 S™ platform



10 mm videoendoscope



autoclavable



26606ACA

TIPCAM®1 RUBINA®, OPAL1® NIR/ICG, 4K/3D, high-resolution videoendoscope with two distally integrated video chips, for NIR/ICG fluorescence imaging in combination with POWER LED RUBINA®, for use with IMAGE1 S CONNECT® II and IMAGE1 S™ 4U-LINK

26606BCA

Same, direction of view 30°

Specifications

Frame rate	50/60 Hz	Cable length	300 cm
Image sensor	2-chip	Cable routing	straight
Resolution	3840 × 2160 pixels	Camera head buttons	freely programmable
Scanning method	progressive scan	Reprocessing	autoclavable, hydrogen peroxide sterilization
Direction of view	26606ACA: 0° 26606BCA: 30°	S-Technologies	CLARA, CHROMA, SPECTRA in 2D and 3D
Outer diameter	10 mm	Protection class	in conjunction with Camera Control Unit IMAGE1 S™: CF-Defib
Working length	32 cm		
Weight	420 g		

Product information



TC201EN*

IMAGE1 S CONNECT® II, connect module, for use with up to 3 link modules, resolution 3840 x 2160 and 1920 x 1080 pixels, with integrated KARL STORZ-SCB or KS HIVE® and digital Image Processing Module, power supply 100–240 VAC, 50/60 Hz



TC304

IMAGE1 S™ 4U-LINK, link module, for use with IMAGE1 S™ 4U camera heads, power supply 100-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC200 or IMAGE1 S CONNECT® II TC201



TH121

IMAGE1 S™ 4U Rubina®, Opal1® NIR/ICG, two-chip 4K UHD camera head, S-Technologies available, for NIR/ICG fluorescence imaging in combination with POWER LED Rubina®, Opal1® NIR/ICG, progressive scan, low-temperature sterilization, focal length f=19 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S CONNECT® II and IMAGE1 S™ 4U-LINK



26606ACA /
26606BCA

TIPCAM®1 Rubina®, Opal1® NIR/ICG, 4K/3D, high-resolution videoendoscope with two distally integrated video chips, for NIR/ICG fluorescence imaging in combination with POWER LED Rubina®, direction of view 0° (26606ACA) and 30° (26606BCA), diameter 10 mm, length 32 cm, autoclavable, S-technologies available, freely programmable camera head buttons, for use with IMAGE1 S CONNECT® II and IMAGE1 S™ 4U-LINK



TL400

Cold Light Fountain POWER LED Rubina®, for NIR/ICG fluorescence imaging and standard endoscopic diagnosis, with two LEDs and one KARL STORZ light cable connection, with integrated unit communication via KS HIVE®, power supply 100-125/220-240 VAC, 50/60 Hz

* Also available in the following languages: DE, ES, FR, IT, PT, RU



Product details

TIPCAM®1 Rubina® – The New 4K-3D NIR/ICG Videoendoscope

- Automatic horizon control for better orientation and handling
- Available with 0° and 30° directions of view
- Easy toggle from 3D to 2D
- OPAL1® NIR/ICG visualization modes: Overlay, Monochromatic and Intensity Map

- Technical details

Image sensor resolution	4K
Direction of view	30°
Outer diameter	10.3 mm
Working length	320 mm
Fluorescence imaging (NIR/ICG)	yes, in conjunction with POWER LED Rubina®
Connection	4U-Line
Weight	420 g
Cable length	300 cm
Cable routing	straight
Frame rate	50/60 Hz
Image sensor type	CMOS
Number of image sensors	2
Zoom function	yes, digital
Camera head buttons	3 buttons, 2 freely programmable
Autoclavable	yes
H2O2 (hydrogen peroxide)	yes
S-Technologies	CLARA; CHROMA; SPECTRA A + B
degree of protection in conjunction with the IMAGE1 S™ camera control unit	CF defib
Scanning method	progressive scan
Brand	TIPCAM®1

3D Camera Platforms

Accessories

Accessories for IMAGE1 S 3D in FULL HD



USB Silicone Keyboard, with touchpad

Character Sets:

20 0402 40DE German

20 0402 40FR French

20 0402 40IT Italian

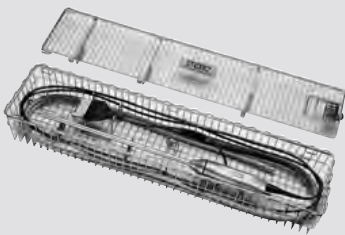
20 0402 40PT Portuguese

20 0402 40ES Spanish

20 0402 40RU Russian

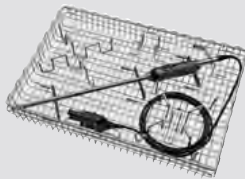
20 0402 40US US-English

Accessories for 3D Video Endoscopes



39501 XTC

Wire Tray for Cleaning, Sterilization and Storage of TIPCAM®1 S 3D LAP Video Endoscopes 26605 AA/BA and one light cable, **autoclavable**, external dimensions (w x d x h): 640 x 150 x 87 mm



39501 TC

Wire Tray for Cleaning, Sterilization and Storage of TIPCAM®1 Video Endoscopes 266x3 AA/BA, TIPCAM®1 3D Video Endoscopes 266x4 AA/BA and one light cable, **autoclavable**, external dimensions (w x d x h): 480 x 320 x 75 mm

Accessories for 3D FULL HD Monitors



9800 GF

3D Polarization Glasses, fogless, passive, package of 2, for use with 3D monitors

9800 GP

3D Polarization Glasses, passive, package of 2, for use with 3D monitors



9800 C

3D Clip-on Glasses, circularly polarized

Please note:

The instruments displayed in the trays are not included in delivery.



POWER LED Rubina® – The New LED Light Source for White Light and NIR/ICG Applications

Power, efficiency, durability and flexibility are the hallmarks of the POWER LED Rubina® cold light source based on LED technology. The light source can be used for white light as well as fluorescence applications for displaying NIR/ICG or autofluorescence in the near infrared range.

- Laser-free LED light source for white light and NIR/ICG excitation
- OPAL1® NIR/ICG technology with new functionalities
- Min. 30,000 hours of lamp service life
- Straightforward user interface thanks to intuitive touch screen
- Constant light intensity throughout the entire service life
- Very low volume

Technical details

Fluorescence imaging (NIR/ICG)	Yes	Line frequency	50/60 Hz
Fluorescence imaging (Blue Light Imaging, BLI)	no	Degree of safety	CF
Control via touch screen	yes	Degree of safety with KARL STORZ light cables	CF-Defib
Illumination technology	LED	Wipe disinfection	yes
Average lamp service life	30000 h	Electrical protection class	1
Integrated pump for air insufflation	no		
Color temperature approx.	5700 K		
Unit communication KS HIVE®	yes		
Unit communication SCB	no		
Light intensity adjustment	Automatic via HIVE and manual		
Weight	7.4 kg		
Width	305 mm		
Height	120 mm		
Depth	370 mm		
Power supply	100 - 125 / 220 - 240 VAC		
IP protection class	IPX0		
Electrical protection class	protection class 1		
KARL STORZ light outlet	yes		
Power consumption	220 VA		

Adaptor Series




for LED and XENON Light Sources

		POWER LED 300	Cold Light Fountain XENON 100 SCB	Cold Light Fountain VETERINARY	CO ₂ MBI® LED
20 0300 30	Adaptor , with insufflation connector, for connecting KARL STORZ fiberscopes and videoendoscopes with KARL STORZ standard light connector to XENON 100 and Olympus cold light fountains	-	●	-	●
TL 005	Triple Adaptor , for use with POWER LED 300 cold light fountain in combination with KARL STORZ, Olympus, Stryker and Wolf light cables	●	-	-	-
69487 KVE	Adaptor , for KARL STORZ videoendoscopes, for use with light sources XENON NOVA® and XENON 175, compatible with POWER LED 300, with integrated heat filter and lateral connector for insufflation	●	-	-	-




Cold Light Fountains

Accessories

Optional Accessories for Cold Light Fountain CO₂MBI® LED

	TL 001	Irrigation Bottle Holder , for use with Cold Light Fountain CO ₂ MBI® LED SCB TL 100
	TL 002	Holding Ring , for Water Bottle 13992 BS, for use with Irrigation Bottle Holder TL 001
	TL 003	Holding Ring , for use with Ampuwa Plastipur irrigation bottles, in combination with Irrigation Bottle Holder TL 001
	TL 004	CO₂ Bottle Holder , for CO ₂ bottles, for use with Cold Light Fountain CO ₂ MBI® LED SCB TL 100
	495 KS	Adaptor , for standard KARL STORZ fiber optic light cables (not 495 NCS/TIP/NAC/NCSC), for connection to cold light fountains with videoendoscope adaptor
	* 20 0300 30	Adaptor , with insufflation connector

Accessories for Cold Light Fountain POWER LED 300

	* TL 005	Triple Adaptor , for use with POWER LED 300 cold light fountain in combination with KARL STORZ, Olympus, Stryker and Wolf light cables
	20 0901 70	SCB Connecting Cable , length 100 cm
	69487 KVE	Adaptor , for KARL STORZ videoendoscopes, for use with light sources XENON NOVA® and XENON 175, compatible with POWER LED 300, with integrated heat filter and lateral connector for insufflation

*Adaptors are also for use with Cold Light Fountains XENON 100 SCB

Fiber Optic Light Cables

for Cold Light Fountains



Fiber Optic Light Cable with Straight Connector

495 NE	Fiber Optic Light Cable , diameter 4.8 mm, length 300 cm
495 NCS	Fiber Optic Light Cable , extremely heat-resistant, diameter 4.8 mm, length 250 cm
NEW 495 NCSC	Fiber Optic Light Cable , extremely heat-resistant, with safety locking device, diameter 4.8 mm, length 250 cm
495 NB	Fiber Optic Light Cable , diameter 4.8 mm, length 180 cm
495 ND	Fiber Optic Light Cable , diameter 3.5 mm, length 300 cm
495 NA	Fiber Optic Light Cable , diameter 3.5 mm, length 230 cm
NEW 495 NAC	Fiber Optic Light Cable , with safety locking device, diameter 3.5 mm, length 230 cm
495 NL	Fiber Optic Light Cable , diameter 3.5 mm, length 180 cm
495 NTA	Fiber Optic Light Cable , diameter 2.5 mm, length 230 cm
495 NT	Fiber Optic Light Cable , diameter 2.5 mm, length 180 cm
NEW 495 TIP	Fiber Optic Light Cable , highly heat resistant, diameter 4.8 mm, length 300 cm, optimized for 3D TIPCAM®1 and TIPCAM®



Fiber Optic Light Cable with 90° Deflection to the Light Source

495 NWL	Fiber Optic Light Cable , with 90° deflection to the cold light fountain on the fountain side, diameter 3.5 mm, length 300 cm
495 NWM	Fiber Optic Light Cable , with 90° deflection to the cold light fountain on the fountain side, diameter 3.5 mm, length 230 cm
495 NW	Fiber Optic Light Cable , with 90° deflection to the cold light fountain on the fountain side, diameter 3.5 mm, length 180 cm
495 NTX	Fiber Optic Light Cable , with 90° deflection to the cold light fountain on the fountain side, diameter 2.5 mm, length 230 cm
495 NTW	Fiber Optic Light Cable , with 90° deflection to the cold light fountain on the fountain side, diameter 2.5 mm, length 180 cm



495 NVC



495 NV/NVL/NVB

Fiber Optic Light Cable with 90° Deflection to the Instrument

NEW 495 NVC	Fiber Optic Light Cable , with 90° deflection to the instrument, very narrow radius of curvature, diameter 4.8 mm, length 300 cm
495 NVB	Fiber Optic Light Cable , with 90° deflection to the instrument, diameter 4.8 mm, length 300 cm
495 NVL	Fiber Optic Light Cable , with 90° deflection to the instrument, diameter 3.5 mm, length 300 cm
495 NV	Fiber Optic Light Cable , with 90° deflection to the instrument, diameter 3.5 mm, length 230 cm



Light Adaptor, angled 90°

495 EW	Light Adaptor , angled 90°, diameter 4.8 mm, free rotatable, to connect with standard telescopes
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Adaptor for connecting KARL STORZ fiber optic light cables with endoscopes and light sources from other manufacturers, see page TP 132



Length	300 cm
Diameter	4.8 mm
Cable connection light source	straight
Cable connection telescope	straight
Safety lock	yes
Fluorescence imaging (NIR/ICG) (CE)	yes
Fluorescence imaging (NIR/ICG) (FDA)	no
Fluorescence imaging (Blue Light Imaging, BLI)	no
Heat resistance	high
Enhanced light transmission	Yes
Light cable type	Fiber optic
Autoclavable	yes (at 134°)
Number of instrument ports	1

ENDOFLATOR® 50 SCB

UI500S1

ENDOFLATOR® 50 SCB,
integrated SCB module,
power supply 100–40 VAC, 50/60 Hz
including:

ENDOFLATOR® 50 SCB

SCB Connecting Cable, length 100 cm

Universal Wrench

Heated Insufflation Tubing Set, with gas filter,
sterile, for single use, package of 3*

HiCap® Trocar, size 11 mm

Subject to the customer's application-specific requirements additional accessories must be ordered separately.

**HAMOU® ENDOMAT® with KARL STORZ SCB**

Suction and Irrigation System



26331101-1 HAMOU® ENDOMAT® SCB,
power supply 100–240 VAC, 50/60 Hz
including:

Mains Cord

5x **HYST Tubing Set***, for single use

5x **LAP Tubing Set***, for single use

SCB Connecting Cable, length 100 cm

VACUsafe Promotion Pack Suction*, 2 l

Subject to the customer's application-specific requirements additional accessories must be ordered separately.



ENDOFLATOR® 40 SCB ^{NEW}

System Components

CO₂ Bottle, empty,
Pin-Index connector



26 4000 91

CO₂ Bottle, empty,
German connector



26 4000 90

High Pressure Tube,
Pin-Index connector



20 4000 22 length 55 cm
20 4000 28 length 102 cm

High Pressure Tube,
German connector



20 4000 21 length 55 cm
20 4000 27 length 102 cm

High Pressure Tube,
ISO connector



20 4002 22 length 102 cm

Low Pressure Tube,
for central CO₂ gas supply



UI001, length 150 cm
UI002, length 300 cm
UI003, length 600 cm

UNIT SIDE

PATIENT SIDE



Gas Filter, sterile, for single use



031122-01*

Insufflation Tubing Set



031200-01*

Insufflation Tube, sterilizable



UI004

Operating Rectoscope Tubes



24941 T, 24941 A, 24941 BA

INSUFFLATORS

Optional Accessories

for Insufflators

for use with

ENDOFLATOR® 40 SCB
UI 400S1

ENDOFLATOR® 50 SCB
UI 500S1

	031200-10	Insufflation Tubing Set with Gas Filter , length 300 cm, hydrophobic on both sides, sterile, for single use, package of 10, for use with insufflation units with a maximum gas flow of 50 l/min (Electronic ENDOFLATOR®, THERMOFLATOR®, ENDOFLATOR® 40 and ENDOFLATOR® 50)	STERILE 	•	•
	031210-10*	Same , heatable	STERILE 	-	•
	031122-25	Gas Filter , with ISO connectors, hydrophobic on both sides, sterile, for single use, package of 25, for use with insufflation units with a maximum gas flow of 50 l/min (Electronic ENDOFLATOR®, THERMOFLATOR®, ENDOFLATOR® 40 and ENDOFLATOR® 50)	STERILE 	•	•
	UI 004	Insufflation Tube , sterilizable, inner diameter 9 mm, length 250 cm		•	•
	031622-10	Insufflation Tubing Set with Gas Filter , length 400 cm, two patient-side tube connections, hydrophobic on both sides, sterile, for single use, package of 10, for use with insufflation units with a maximum gas flow of 30 l/min (Electronic ENDOFLATOR®, THERMOFLATOR®, ENDOFLATOR® 40 and ENDOFLATOR® 50)	STERILE 	•	•
	26120 J	VERESS Pneumoperitoneum Needle , with spring-loaded blunt inner cannula, LUER-Lock, autoclavable, diameter 2.1 mm, length 10 cm		•	•
	30103 HP	HICAP® Trocar , size 11 mm, color code: green		•	•

INSUFFLATORS AND SURGICAL SMOKE MANAGEMENT

* 



Butelie otel (10 litri)

Buteliile pentru gaze comprimate cu conectare DIN-1 sunt destinate transportului, stocării și distribuției unei game variate de gaze cum ar fi: oxigen, hidrogen, azot, metan, amestecuri de gaze, heliu etc. Aceste butelii sunt utilizate în mod curent în procesele de sudare, tăiere oxigaz și procese conexe, ca rezervoare de combustibil, de oxigen (pentru aparate medicale) etc.

Material: 34CrMo4

Presiunea de încărcare: 200 bar

Presiunea de testare: 300 bar

Suction and Irrigation Systems

HAMOU® ENDOMAT® SCB

Components / Spare Parts

Catalog page

- 26331101-1** HAMOU® ENDOMAT® SCB
- 26331120-1 HAMOU® ENDOMAT® SCB
- 20090170 **SCB Connecting Cable**, length 100 cm
- 031523-10* **Cassette Tubing Set PC**, sterile, for single use
- 031524-10* **Cassette Tubing Set FC**, sterile, for single use

U 26



26331120

Spare Part



2027590
Mains Fuse,
T 2.0 AL (SB),
package of 10

Components / Spare Parts

Catalog page

- 26331142** **Silicone Tubing Set**, for suction, sterilizable

U 29



Spare Parts



27500
LUER-Lock Tube
Connector, male,
tube diameter 9 mm

59351111018
LUER-Lock Connector,
male





20300180
Tubing Connector Set


CASSETTE TUBING SET for single use


The following tubing sets for the irrigation and suction of fluids are available for single use:




031523-10* **Tubing Set**, irrigation, PC¹, STERILE 
sterile, for single use, package of 10,
for use with HAMOU® ENDOMAT® 26331120 and
ENDOMAT® SELECT UP 210

031524-10* **Tubing Set**, irrigation, FC², STERILE 
sterile, for single use, package of 10,
for use with HAMOU® ENDOMAT® 26331120 and
ENDOMAT® SELECT UP210

030647-10* **Tubing Set**, suction, DS³, STERILE 
sterile, for single use, package of 10,
for use with ENDOMAT® SELECT UP210

031647-10* **Tubing Set**, suction, BS⁴, STERILE 
sterile, for single use, package of 10,
for use with ENDOMAT® SELECT UP210

031529-10* **Tubing Set**, irrigation, CV⁵, STERILE 
sterile, for single use, package of 10,
for use with ENDOMAT® SELECT UP210



Note:

Reusable tubing sets are also available. If interested, please contact your KARL STORZ representative.

Suction and Irrigation Systems

DUOMAT®

Components / Spare Parts

20300034 **Bottle Cap**

Catalog page

U 16



Spare Parts



20300580
Overflow Case, gray,
for Bottle Cap 20300034



2911590
Plunger Ball, green,
to overflow case,
2 pcs required



031124-10*
Filter, to block fluid during
suction, for single use,
unsterile, package of 10

10-11



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

20300034



Bottle Cap,
for suction bottles 1.5 l and 5 l, sterilizable



Optional Accessories

for Suction and Irrigation Systems

		for use with		
		ENDOMAT® n. HAMOU® SCB 26 3311 01-1	ENDOMAT® LC SCB 20 3303 01-1	DUOMAT® 20 3210 08
	26 3100 50 Irrigation Liquid Bottle, 1 l, sterilizable	-	-	•
	20 3000 50 Suction Bottle, 5 l, sterilizable	•	-	•
	20 3000 34 Bottle Cap, for suction bottles 1.5 l and 5 l, sterilizable	•	-	•
	20 3000 32 Bottle Stand, for suction bottle 5 l	•	-	•
	20 3000 33 Bottle Stand Holder, for Bottle Stand 20 3000 32	•	-	•
	20 0142 30 One-Pedal Footswitch, digital, two-stage, for activating a higher flow for improved visibility	-	•	-
	20 0141 30 One-Pedal Footswitch, digital, one-stage, for irrigation	-	•	-
	20 3004 82 Connector Set, for ENDOMAT® LC, for use with Silicone Tubing Sets 20 3303 40, 20 3303 41 and 20 3303 43	-	•	-
	20 3303 82 Pump Tube, sterilizable, package of 25	-	•	-

SUCTION AND IRRIGATION SYSTEMS

Sample Model Variations from the COR Equipment Cart Series



UG220

Equipment Cart, wide, high, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, central beam with integrated electrical subdistributors with 12 sockets, grounding plugs,

Dimensions:

Equipment Cart: 830 x 1474 x 730 mm (w x h x d),

Shelf: 630 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, wide

Cover, equipment cart, wide

Beam Package, equipment cart, high

3x **Shelf**, wide

Drawer Unit with Lock, wide

2x **Equipment Rail**, long

Camera Holder



UG120

Equipment Cart, narrow, high, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, central beam with integrated electrical subdistributors with 12 sockets, grounding plugs,

Dimensions:

Equipment Cart: 660 x 1474 x 730 mm (w x h x d),

Shelf: 450 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, narrow

Cover, equipment cart, narrow

Beam Package, equipment cart, high

3x **Shelf**, narrow

Drawer Unit with Lock, narrow

2x **Equipment Rail**, long

Camera Holder



UG 310 **Isolation Transformer**, 200 – 240 V, 2000 VA, with 3 special mains socket, automatic cutout, 3 grounding plugs, Dimensions in mm: 330 x 90 x 495 (w x h x d), for use with Equipment Carts UG xxx

UG 300 **Same**, 100 – 120 V



UG 410 **Earth Leakage Monitor**, 200 – 240 V, for mounting to equipment carts, Control panel dimensions: 44 x 80 x 29 mm (w x h x d), for use with Isolation Transformer UG 310

UG 400 **Earth Leakage Monitor**, 100 – 120 V, for mounting to equipment carts, Control panel dimensions: 44 x 80 x 29 mm (w x h x d), for use with Isolation Transformer UG 300



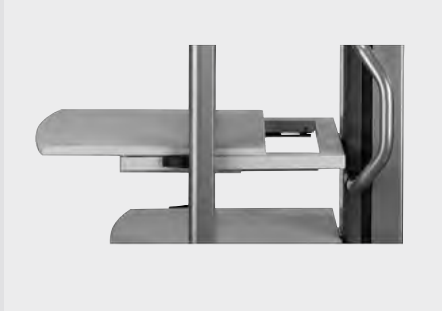
UG 700 **Mains Cord**, with angled plug, length 100 cm



- 20 0102 70 **Potential Equipotential Cable**, length 500 cm
- 20 0103 70 **Potential Equipotential Cable**, length 200 cm
- 20 0105 70 **Potential Equipotential Cable**, length 150 cm
- 20 0106 70 **Potential Equipotential Cable**, length 100 cm



29005 PA-DR **Potential Equipotential Cable Set**, for equipment carts, for 5 units, including Potential Equipotential Cable 5x 20 0106 70, 1x 20 0105 70, 1x 20 0102 70 for 5 units, for use with COR equipment carts and Equipment Cart 29005 DRB/DRS



UG 605 **Keyboard Tray**, narrow, for mounting under narrow Shelf UG 603, load capacity max. 10 kg, Dimensions: 430 x 480 mm (w x d), for use with Equipment Carts UG xxx

UG 606

Keyboard Tray, wide, for mounting under wide Shelf UG 604, load capacity max. 10 kg, Dimensions: 630 x 480 mm (w x d), for use with Equipment Carts UG xxx

CO₂ Adaptor Set for Bottle Holder



UG812

Adaptor Set for Bottle Holder, COR mobile stand, two elements, dimensions in mm (w x h x d): 49 x 162 x 65 and 49 x 252 x 65, for use with Beam Modules UG801 and UG802 and CO₂ Bottle Holder UG609

UG609

Bottle Holder, for CO₂ bottles, max. diameter 210 mm, dimensions in mm (w x h x d): 230 x 280 x 210, for use with Equipment Carts UGxxx

Suction Canister Holder for COR Mobile Stand



UG814

Suction Canister Holder, COR mobile stand, dimensions in mm (w x h x d): 210 x 276 x 256, for use with Guardian Suction Canister 030306-04

Footswitch Holders



UG901

Footswitch Holder, for use with One-Pedal Footswitch UF901



UG902

Footswitch Holder, for use with Two-Pedal Footswitch UF902 and one- and two-pedal universal footswitches



29005EFH

Footswitch Holder, for one-pedal footswitch



29005DFH

Footswitch Holder, for two- and three-pedal footswitches



29005KHN

Camera Holder, for mounting camera heads, with removable inserts, compatible with all KARL STORZ endoscopic camera heads, for mounting to equipment rails



Puterea (W)

2.4 kW

Tensiune (V)

150 - 250 V

Opțiuni

Cleme

Model

HTND-3kVA

Tensiunea la ieșire (V)

230 V

Număr de faze

Monofazat

Brand

Himel

Tip

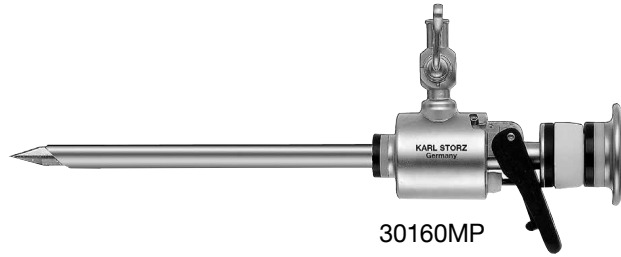
Releu

Metoda de prindere

Pe podea

Trocars and Accessories

Size 6 mm



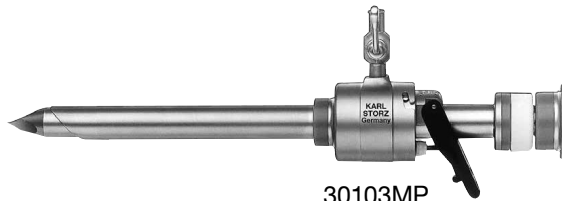
30160MP



30160MP

Trocar, with pyramidal tip, with insufflation stopcock, size 6 mm, working length 10.5 cm, color code: black, including:
Cannula, without valve
Trocar only
Multifunctional Valve

Size 11 mm



30103MP

30103MP

Trocar, with pyramidal tip, with insufflation stopcock, size 11 mm, working length 10.5 cm, color code: green, including:
Cannula, without valve
Trocar only
Multifunctional Valve



30140DB

Reduction Sleeve, reusable, instrument diameter 5 mm, trocar cannula outer diameter 11 mm, color code: green



30142HB

Double Reducer, 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm

TERNAMIAN EndoTIP Cannulas

NEW

Size 11 mm

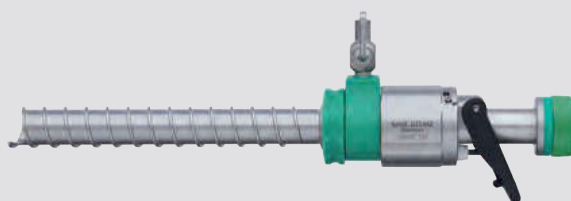
For use with telescopes diameter 10 mm

US patents 5,478,329 and 5,630,805

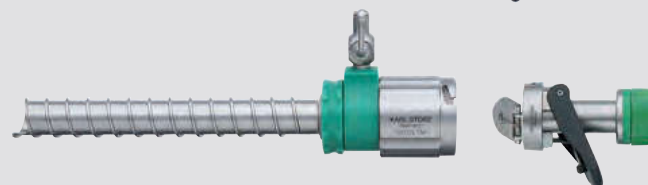


Special Features:

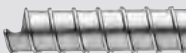


- Detachable stopcock housing
- Weight reduction due to plastic housing
- Color coding of housing indicates sizes (6 mm black/11 mm green)



Cannula



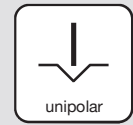
Multifunctional valve

Size:		11 mm			
Working length:		10.5 cm			
Color code:		green			
	<p>TERNAMIAN EndoTIP Cannula including: Cannula, with thread and rotatable insufflation stopcock Multifunctional Valve</p>	<table border="1"> <tr> <td>30103 TMR</td> </tr> <tr> <td>30103 TM</td> </tr> <tr> <td>30103 M1</td> </tr> </table>	30103 TMR	30103 TM	30103 M1
30103 TMR					
30103 TM					
30103 M1					
Accessory 	<p>Telescope Stopper, sterile, for single use, package of 12</p> 	30103 CS			

Telescopes for use with TERNAMIAN EndoTIP cannulas, size 11 mm see pages 31, 35, 39-40
HEINKEL-SEMM Dilatation Set see page 78, Accessories for Trocars see pages 76-77

Dissecting and Grasping Forceps

CLICK'liné – rotating, dismantling, insulated, with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, lengths 30 and 36 cm, for use with trocars size 6 mm

Operating instruments, length 43 cm, for use with telescopes with inbuilt working channels and trocars size 6 mm

Length	Handle					
	33151	33152	33153	33156	33121	33149
30 cm						
36 cm						
43 cm						

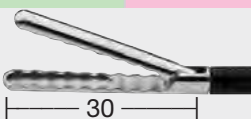
Single action jaws

Working Insert	Complete Instrument					
33210 ON	33251 ON	33252 ON	33253 ON	33256 ON	33221 ON	33249 ON
33310 ON	33351 ON	33352 ON	33353 ON	33356 ON	33321 ON	33349 ON
33410 ON	33451 ON	33452 ON	33453 ON	33456 ON	33421 ON	33449 ON



CLICK'liné Grasping Forceps, with fine atraumatic serration, fenestrated

33210 LF	33251 LF	33252 LF	33253 LF	33256 LF	33221 LF	33249 LF
33310 LF	33351 LF	33352 LF	33353 LF	33356 LF	33321 LF	33349 LF
33410 LF	33451 LF	33452 LF	33453 LF	33456 LF	33421 LF	33449 LF



CLICK'liné Grasping Forceps, atraumatic, hollow jaws

33210 CC	33251 CC	33252 CC	33253 CC	33256 CC	33221 CC	33249 CC
33310 CC	33351 CC	33352 CC	33353 CC	33356 CC	33321 CC	33349 CC
33410 CC	33451 CC	33452 CC	33453 CC	33456 CC	33421 CC	33449 CC



CLICK'liné CROCE-OLMI Grasping Forceps, atraumatic, fenestrated, curved

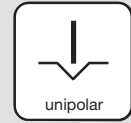
Dissecting and Grasping Forceps

CLICK^{line} – rotating, dismantling, insulated, with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, lengths 30 and 36 cm, for use with trocars size 6 mm

Operating instruments, length 43 cm, for use with telescopes with inbuilt working channel and trocars size 6 mm



Length	Handle						
	33151	33152	33153	33156	33121	33125	33149
30 cm							
36 cm							
43 cm							

Double action jaws

Working Insert	Complete Instrument						
33210 R	33251 R	33252 R	33253 R	33256 R	33221 R	33225 R	33249 R
33310 R	33351 R	33352 R	33353 R	33356 R	33321 R	33325 R	33349 R
33410 R	33451 R	33452 R	33453 R	33456 R	33421 R	33425 R	33449 R



CLICK^{line} Dissecting and Grasping Forceps, right-angled

33210 UL	33251 UL	33252 UL	33253 UL	33256 UL	33221 UL	33225 UL	33249 UL
33310 UL	33351 UL	33352 UL	33353 UL	33356 UL	33321 UL	33325 UL	33349 UL
33410 UL	33451 UL	33452 UL	33453 UL	33456 UL	33421 UL	33425 UL	33449 UL



CLICK^{line} REDDICK-OLSEN Dissecting and Grasping Forceps, robust

33210 HM	33251 HM	33252 HM	33253 HM	33256 HM	33221 HM	33225 HM	33249 HM
33310 HM	33351 HM	33352 HM	33353 HM	33356 HM	33321 HM	33325 HM	33349 HM
33410 HM	33451 HM	33452 HM	33453 HM	33456 HM	33421 HM	33425 HM	33449 HM



CLICK^{line} Dissecting and Grasping Forceps, "alligator jaws"

5 mm

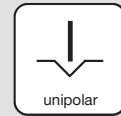
Dissecting and Grasping Forceps

CLICK*line*® – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm

Operating instruments, lengths **30 and 36 cm**,
for use with trocars size **6 mm**

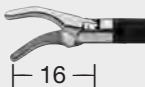
Operating instruments, length **43 cm**, for
use with telescopes with inbuilt working
channel and trocars size 6 mm



Length	Handle					
	33151	33152	33153	33156	33121	33149
30 cm						
36 cm						
43 cm						

Double action jaws

Working Insert	Complete Instrument					
33210 MD	33251 MD	33252 MD	33253 MD	33256 MD	33221 MD	33249 MD
33310 MD	33351 MD	33352 MD	33353 MD	33356 MD	33321 MD	33349 MD
33410 MD	33451 MD	33452 MD	33453 MD	33456 MD	33421 MD	33449 MD



CLICK*line*® KELLY Dissecting and Grasping Forceps

33210 ML	33251 ML	33252 ML	33253 ML	33256 ML	33221 ML	33249 ML
33310 ML	33351 ML	33352 ML	33353 ML	33356 ML	33321 ML	33349 ML
33410 ML	33451 ML	33452 ML	33453 ML	33456 ML	33421 ML	33449 ML



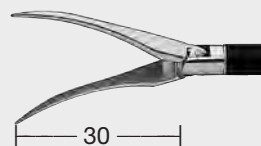
CLICK*line*® KELLY Dissecting and Grasping Forceps, long

33310 DK	33351 DK	33352 DK	33353 DK	33356 DK	33321 DK	33349 DK
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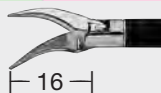
CLICK*line*® DeBAKEY Grasping Forceps,
curved and slender jaws, atraumatic

33310 UY	33351 UY	33352 UY	33353 UY	33356 UY	33321 UY	33349 UY
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CLICK*line*® UYAMA Dissecting and Grasping Forceps,
long jaws, with reservoir, fine, for dissection

33310 NO	33351 NO	33352 NO	33353 NO	33356 NO	33321 NO	33349 NO
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CLICK*line*® NOSHIRO Dissecting and Grasping Forceps,
short jaws, fine, for dissection

Dissecting and Grasping Forceps

CLICK'liné – rotating, dismantling,
without connector pin for unipolar coagulation

Size 10 mm

Operating instruments, length 36 cm,
for use with trocars size 11 mm

Length	Handle						
	33161	33162	33163	33166	33131	33146	33147
36 cm		NEW 	NEW 	NEW 			

Single action jaws

Working Insert	Complete Instrument						
33510 FK	33561 FK	33562 FK	33563 FK	33566 FK	33531 FK	33546 FK	33547 FK
 21	CLICK'liné Claw Forceps, 2 x 3 teeth, short						

33510 FS	33561 FS	33562 FS	33563 FS	33566 FS	33531 FS	33546 FS	33547 FS
 35	CLICK'liné Claw Forceps, 2 x 3 teeth						

Double action jaws

33510 SR	33561 SR	33562 SR	33563 SR	33566 SR	33531 SR	33546 SR	33547 SR
 22	CLICK'liné Forceps, to retrieve lost gallstones						

10 mm

Scissors

CLICK'line® – rotating, dismantling,
with and without connector pin for unipolar coagulation



Size 5 mm

Operating instruments, lengths 30, 36 and 43 cm,
for use with trocars size 6 mm

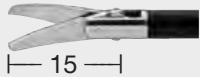
Operating instruments, length 43 cm,
for use with telescopes with inbuilt
working channel and trocars size 6 mm

5 mm

Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
30 cm							
36 cm							
43 cm							

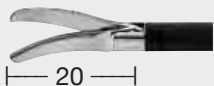
Double action jaws

Working Insert	Complete Instrument						
34210 MS	34251 MS	34221 MS	34225 MS	34249 MS	34261 MS	34231 MS	34247 MS
34310 MS	34351 MS	34321 MS	34325 MS	34349 MS	34361 MS	34331 MS	34347 MS
34410 MS	34451 MS	34421 MS	34425 MS	34449 MS	34461 MS	34431 MS	34447 MS



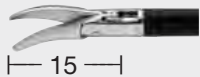
CLICK'line® METZENBAUM Scissors, curved

34210 MA	34251 MA	34221 MA	34225 MA	34249 MA	34261 MA	34231 MA	34247 MA
34310 MA	34351 MA	34321 MA	34325 MA	34349 MA	34361 MA	34331 MA	34347 MA
34410 MA	34451 MA	34421 MA	34425 MA	34449 MA	34461 MA	34431 MA	34447 MA



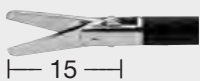
CLICK'line® Scissors, serrated blades, spoon-shaped, curved

34210 MW	34251 MW	34221 MW	34225 MW	34249 MW	34261 MW	34231 MW	34247 MW
34310 MW	34351 MW	34321 MW	34325 MW	34349 MW	34361 MW	34331 MW	34347 MW
34410 MW	34451 MW	34421 MW	34425 MW	34449 MW	34461 MW	34431 MW	34447 MW



CLICK'line® Scissors, serrated, curved, conical

34210 MD	34251 MD	34221 MD	34225 MD	34249 MD	34261 MD	34231 MD	34247 MD
34310 MD	34351 MD	34321 MD	34325 MD	34349 MD	34361 MD	34331 MD	34347 MD



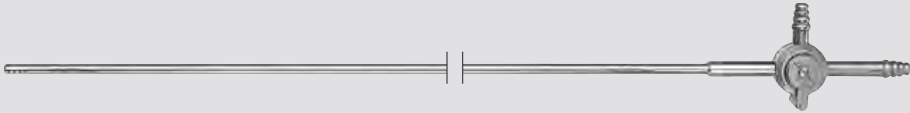
CLICK'line® Scissors, straight




Suction and Irrigation Tubes

Size 5 mm

Operating instruments, **lengths 30 and 36 cm**,
for use **with trocars size 6 mm**


Operating instruments, **length 43 cm**,
for use with telescopes with inbuilt
working channel **and trocars size 6 mm**


Length	Instrument
30 cm	
36 cm	
43 cm	

Distal End	Instrument
	26172 BN 26173 BN 26174 BN Suction and Irrigation Tube , anti-reflex surface, with lateral holes, with two-way stopcock for single-hand control
	26173 BL Suction and Irrigation Tube , anti-reflex surface, with two-way stopcock for single hand control, with two female LUER-lock connectors
	26173 BK Suction and Irrigation Tube , anti-reflex surface, with protection basket, with two-way stopcock for single hand control

Size 10 mm

Operating instruments, **length 36 cm**,
for use **with trocars size 11 mm**

Length	Instrument
36 cm	

Distal End	Instrument
	37560 LH Suction and Irrigation Tube , with lateral holes

Please note:

Handles for use with Suction and Irrigation Tubes see pages 242-247

Units for use with Handles for Suction and Irrigation see chapter 20, UNITS

Accessories

Reduction Sleeves/Extractors and Reducers

Reduction Sleeves/Extractors



30140 DB

Instrument Diameter	Outer Diameter of Trocar Cannula – Color Code					
	6 mm black	11 mm green	12 mm white	13 mm black	15 mm	22 mm
3 mm	30140 KA	30140 DA	–	–	–	–
5 mm	–	30140 DB	30140 EB	30140 HB	30140 FB	30140 GB
8 mm	–	30140 DD	–	–	–	–
10 mm	–	–	30140 EE	30140 HE	30140 FE	30140 GE

Reducers, for use with trocars with automatic valves and TERNAMIAN EndoTIP cannulas with automatic valves



30141 AA



30141 DB

- 30141 AA **Reducer**, 6/3 mm
- 30141 DB **Same**, 11/5 mm
- 30141 HB **Same**, 13/5 mm and 13.5/5 mm
- 30141 HE **Same**, 13/10 mm

Double Reducer



30142 HB

- 30142 HB **Double Reducer**, 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm

Reducers, for use with trocars with silicone leaflet valves and TERNAMIAN EndoTIP cannulas with silicone leaflet valves



30160 RE


- 30160 RE **Reducer**, 6/3 mm
- 30103 RE **Same**, 11/5 mm

Containers Full-size (60x30)

39312X



Containers, full-size

Handle: gray	Height
	164 mm



532 x 251 x 94

Silicone Mat



524 x 244 mm

ROBI® Bipolar Grasping Forceps ^{NEW}

rotating, dismantling, with connector pin for bipolar coagulation, CLERMONT-FERRAND model

Size 5 mm



Operating instruments, **length 36 cm**, for use **with trocars size 6 mm**

Operating instruments, **length 43 cm**, for use with telescopes with inbuilt working channel and trocars size 6 mm

Outer Sheath	Handle
	38151
Length 36 cm	
Length 43 cm	

Double action jaws

Working insert	Complete Instrument
38610 ON	38651 ON
38710 ON	38751 ON
<p>18</p>	<p>ROBI® Grasping Forceps, CLERMONT-FERRAND model, fenestrated, with especially fine atraumatic serration</p>
38610 WA	38651 WA
<p>19</p>	<p>ROBI® WATTIEZ Grasping Forceps, with multiple teeth, for atraumatic and accurate grasping</p>
38610 MD	38651 MD
38710 MD	38751 MD
<p>19</p>	<p>ROBI® KELLY Dissecting and Grasping Forceps, CLERMONT-FERRAND model, especially suitable for dissection</p>
38610 ML	38651 ML
<p>24</p>	<p>ROBI® KELLY Dissecting and Grasping Forceps, CLERMONT-FERRAND model, especially suitable for dissection</p>
38610 MA	38651 MA
<p>24</p>	<p>ROBI® MALZONI Dissecting and Grasping Forceps, especially suitable for dissection</p>

5 mm

Please note:

For the instrument only the **individual component parts** are numbered. The catalog number for the **complete instrument** is not on the instrument. Please take this number from the numbers indicated in the **red** background of the table above. The color **green** indicates the working inserts.

Bipolar High Frequency Cords see accessories page 158






Skull Base and Endoscopic Pituitary Surgery

Accessories, High Frequency Cords,
for use with TAKE-APART® bipolar forceps

Bipolar High Frequency Cords



KARL STORZ High Frequency
Instrument Surgical Units

	<p>26176 LE</p> <p>Bipolar High Frequency Cord, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, KARL STORZ Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® system (50, 200, 350), Erbe-Coagulator, T and ICC series, length 300 cm</p>
	<p>26176 LM</p> <p>Bipolar High Frequency Cord, for Martin and Berchtold coagulators, length 300 cm</p>
	<p>26176 L</p> <p>Bipolar High Frequency Cord, with 2 x 4 mm banana plug for KARL STORZ Coagulator 26020 XA/XB and Ellman, length 300 cm</p>
	<p>26176 LA</p> <p>Bipolar High Frequency Cord, with 2 x 4 mm banana plug for KARL STORZ Coagulator 26020 XA/XB and Valleylab, length 300 cm</p>
	<p>26176 LV</p> <p>Bipolar High Frequency Cord, for KARL STORZ AUTOCON® II 400 SCB system (112, 114, 116, 122, 125) and Valleylab coagulators, length 300 cm</p>

8-08

High Frequency Surgical Units AUTOCON® see chapter 12

Щипцы для захвата и диссекции

CLICK^{line} – поворотные, разборные, без соединения для монополярной коагуляции

размер 10 мм

Операционные инструменты, длина 36 см, для использования с троакарами размером 11 мм

длина	рукоятка						
	33161	33162	33163	33166	33131	33146	33147
36 см		НОВИНКА 	НОВИНКА 	НОВИНКА 			

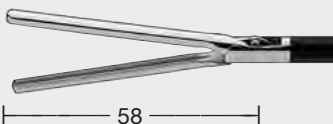
Обе branши подвижны

рабочая вставка	номер инструмента в сборе						
33710 DU	33761 DU	33762 DU	33763 DU	33766 DU	33731 DU	33746 DU	33747 DU



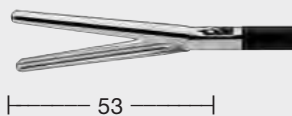
Захватывающие щипцы CLICK^{line} по DUVAL, с усиленным штыковым соединением, для использования с внешним тубусом 33700

33510 GF	33561 GF	33562 GF	33563 GF	33566 GF	33531 GF	33546 GF	33547 GF
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Кишечный зажим CLICK^{line}, двухрядный, с атравматическими зубцами

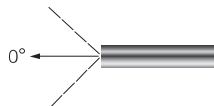
33510 CB	33561 CB	33562 CB	33563 CB	33566 CB	33531 CB	33546 CB	33547 CB
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Кишечный зажим CLICK^{line}

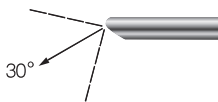
10 мм

Diameter 10 mm, length 31 cm
Trocar size 11 mm



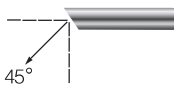
26003ARA

HOPKINS® RUBINA® 0°, NIR/ICG, straight forward telescope 0°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, color code: green



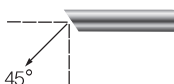
26003BRA

HOPKINS® RUBINA® 30°, NIR/ICG, forward-oblique telescope 30°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, color code: red



26003FRA

HOPKINS® RUBINA® 45°, NIR/ICG, forward-oblique telescope 45°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, color code: black



26003FREA

HOPKINS® RUBINA® 45°, NIR/ICG, forward-oblique telescope 45°, enlarged view, diameter 10 mm, length 42 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, color code: black

Recommended light cables for fluorescence-assisted perfusion assessment with ICG



495NCSC

Fiber Optic Light Cable, with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm

495NAC

Fiber Optic Light Cable, with straight connector, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications, diameter 3.5 mm, length 230 cm

Bipolar Coagulating Forceps

Bipolar Coagulating Forceps, insulated
 For use with Bipolar High Frequency Cords 847000 or 847000 A/E/M/V



844320

Bipolar Coagulating Forceps, insulated, bayonet-shaped, blunt, with integrated suction channel and cut-off hole, tip 1.4 mm, length 20 cm



844321

Same, tip 2 mm, length 20 cm



844421

Bipolar Coagulating Forceps, insulated, bayonet-shaped, tip 0.3 mm, length 21 cm



844423

Same, length 23 cm



844521

Same, blunt, tip 0.7 mm, length 21 cm



844523

Same, tip 0.7 mm, length 23 cm



844621

Same, blunt, tip 1 mm, length 21 cm



844623

Same, blunt, tip 1.2 mm, length 23 cm



844721

Same, blunt, tip 2 mm, length 21 cm



845219

Bipolar Coagulating Forceps, insulated, angled tip, bayonet-shaped, blunt, tip 2 mm, length 19 cm

7-071






Accessories

Bipolar High Frequency Cords,
for use with Bipolar Coagulation Forceps



Bipolar High Frequency Cords

KARL STORZ High Frequency
Instrument Surgical Unit

	<p>847000 E Bipolar High Frequency Cord, for AUTOCON® II 400 SCB systems (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, KARL STORZ Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® systems (50, 200, 350), Erbe-Coagulator, T and ICC series, length 300 cm</p>
	<p>847000 A Bipolar High Frequency Cord, with 2x 4 mm banana plug for KARL STORZ Coagulator 26020 XA/XB and Valleylab, length 300 cm</p>
	<p>847000 M Bipolar High Frequency Cord, for Martin and Berchtold coagulators, length 300 cm</p>
	<p>847000 T Bipolar High Frequency Cord, for Siemens coagulator from model Radiotom 804 upwards, for KARL STORZ bipolar coagulation forceps, length 300 cm</p>
	<p>847000 V Bipolar High Frequency Cord, for KARL STORZ AUTOCON® II 400 SCB systems (112, 114, 116, 122, 125) and Valleylab coagulators, length 300 cm</p>

High Frequency Surgical Units AUTOCON® see chapter 12, UNITS