RICHARD WOLF
spirit of excellence

ENDOCAM Logic HD
Camera controller

Digitally signed by Ghereg Victor
Date: 2024.10.04 15:24:05 EEST
Reason: MoldSign Signature
Location: Moldova
MOLDOVA EUROPEANĂ

core | Full HD | 1080p | 3G-SDI | HDMI | USB | dialog

- Various equipment variants. The variants exclusively refer to the configuration of output and input signals
- Digital signal processing
- Outstandingly wide range of application due to integration of various applied parts and diagnostic methods
- updates can be applied at any time via USB port
- Storage of high-resolution images and HD videos on USB storage media
- Integration of further image signals via picture-in-picture port (3G-SDI)
- Specialized for use in integrated operating rooms as a central **core nova module**
- User-friendly. Clinically-devised presets are pre-programmed for various disciplines. This includes applications using standard and fiber endoscopes as well as sensor endoscopes with chip-on-the-tip technology. Personal settings can easily be saved as well
- Maximum flexibility: The resolution of all signal outputs can be adapted individually to the connected system
- Patient data can be entered using the connected USB keyboard
- Direct printing possible
- Modern, clearly arranged on-screen menu
- Dialog function:
  1. Control of connected ENDOLIGHT light source for optimum illumination with maximum protection for the endoscope
  2. Monitor display of major device parameters for further devices (pressure indication, set flow, residual gas display, etc.)

ENDOCAM Logic HD controller bndl

Comprising:

1x ENDOCAM Logic HD controller 552510x
1x hand-held remote control USB 5525401
1x USB flash memory 8 GB 56540028
1x CAN-BUS terminator 5590.989
1x HDMI / DVI-D cable, lockable, 3.0 m 103843
1x power cable 2440.03

Controller equipment variants:

2x HDMI out **55251011**
2x HDMI out / 2x 3G-SDI out **55251051**
2x HDMI out / 2x 3G-SDI out / PIP in **55251061**
2x HDMI out / 2x 3G-SDI out / analog out..... **55251071**
2x HDMI out / 2x 3G-SDI out / PIP in / analog out **55251081**

VIII23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ENDOCAM Logic HD
Technical data of camera controller

Camera controller	552510x		
Device properties			
Type of controls	Touchscreen		
Max. video signal resolution	1920 x 1200 pixels		
White balance, color temperature range	2300 K to 7000 K		
Noise level	34 dB to 48 dB max.		
Digital zoom	1.5x max.		
Individually configurable profiles	at least 5 profiles		
Brightness control	Automatic shutter control + automatic gain control		
Image format of saved pictures / videos	JPEG, TIFF (max. 1920 x 1080) / MPEG4 (max. 1920 x 1080)		
Operating conditions	+10°C to +40°C, 30% to 75% rel. humidity, atmospheric pressure 700 hPa to 1060 hPa		
Operating mode	Continuous operation		
Equipment			
IP rating	IP20		
Cooling method	Controlled fan		
Power supply			
Mains + frequency	100-240 VAC, 50/60 Hz		
Power consumption	100 VA		
Current rating	max. 1.0 A		
Regulatory standards			
Safety	US/ CA: UL 2601-1 / CSA C22.2 NO.601.1, EU: EN 60601		
EMC	EN 60601-1-2 / IEC 601-1-2		
Medical device class	Class 1		
Classification of applied part	CF		
Interfaces			
Video outputs	2x 3G-SDI, 2x HDMI, 1x YC, 1x CV		
PiP input	1x 3G-HD-SDI		
Remote output	2 x 3.5 mm jack, stereo		
USB port (on front panel, for external storage media)	USB 2.0 (FAT32/NTFS formatting)		
Resolution (HDMI output)	Adjustable in the user menu 1280 x 1024/60P (5:4)	1920 x 1080/60P (16:9)	1920 x 1200/60P (16:10)
Resolution (3G-SDI output) also supports HD-SDI	Adjustable in the user menu 1280 x 720/50P (16:9) 1280 x 720/60P (16:9)	1920 x 1080/50I (16:9) 1920 x 1080/60I (16:9)	1920 x 1080/50P (16:9) 1920 x 1080/60/P (16:9)
Resolution of SD outputs for video (Composite) and S-Video (Y/C)	Adjustable in the user menu PAL 720 x 576/50/I (4:3) NTSC 720 x 486/59.94/I (4:3)		
Resolution of picture-in-picture input (3G-SDI)	1280 x 720/50P (16:9) 1280 x 720/60P (16:9)	1920 x 1080/50I (16:9) 1920 x 1080/60I (16:9)	1920 x 1080/50P (16:9) 1920 x 1080/60P (16:9)
Dimensions and weights			
Weight	6.2 kg		
Dimensions (W x H x D)	300 x 120 x 416 mm		

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RICHARD WOLF
spirit of excellence

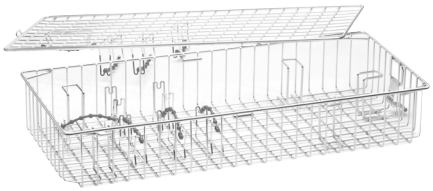
ENDOCAM Logic HD
3-chip HD camera head

AUTOCLAVE
134° C / 273° F

HD
High Definition

- Digital image processing and digital signal transmission
- 2 programmable camera head buttons with 4 available functions
- Universal C-Mount lens connection
- Cable outlet angled at 30°
- Camera head cable can be replaced in the hospital by technicians
- Steam-sterilizable
- Can be reprocessed by machine
- Suitable for low-temperature procedure

ENDOCAM Logic HD camera head **85525922**
3-chip type, cable length 3 m

Recommended accessories		Product no.
RIWO lens	C-Mount, f = 14 mm	**85261144**
	C-Mount, f = 24 mm	**85261244**
RIWO zoom lens	C-Mount, f = 13 - 29 mm	**85261504**
	**Perforated basket for camera head** (L x W x H) 448 x 200 x 73 mm	**38002**

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ENDOCAM Logic HD
Technical data of camera head

Camera head	85525922
Device properties	
Sensor	3x 1/3" CCD
Operation	2 programmable head buttons with 4 functions
Operating conditions	+10°C to +30°C, 20% to 75% rel. humidity, atmospheric pressure 700 hPa to 1060 hPa
Equipment	
Thread for objective lens	C-Mount
Degree of protection against the ingress of moisture	IPX7
Service	Cable and eyepiece snap-in coupling can be replaced on site
Dimensions and weight	
Camera head weight (without cable)	170 g
Housing dimensions (W x H) - without cable and anti-kink protection	43 x 53 mm
Camera head length (without cable)	105 mm
Cable length	3 m / 5 m
Cable outlet	30°

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ENDOLIGHT LED 2.2
LED light source

- The light output is comparable to a 300-watt xenon illuminant
- The LED service life is at least 30,000 hours
- The LED light source reduces power consumption by up to 80% compared to an equivalent xenon light source
- Extremely quiet heatpipe ventilation concept at only 25 dB(A) noise level
- Light cables from different manufacturers (Richard Wolf, Storz, Olympus, ACMI) can directly be connected to the multi-port socket
- Automatic dimming of the light cable socket if the light cable is removed
- Very homogenous illumination of the endoscopic surgical area. No drop in brightness in the peripheral area and no "black spot" in the center
- Very stable color temperature (6500 Kelvin) over the entire LED service life
- Dialog function in conjunction with ENDOCAM Logic camera systems
- Compatible with core nova

Light source ENDOLIGHT LED 2.2 bndl **51640011**

Comprising:
1x ENDOLIGHT LED 2.2 5164001
1x patch cable, RJ45 SFTP, 0.5 m 72325378
1x power cable 2440.03

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ENDOLIGHT LED 2.2
Technical data

ENDOLIGHT LED 2.2	5164001
Device properties	
Type and number of lamps	1x high-power LED
Lamp service life	30,000 h
Brightness in Lumen	1900 lm
Light output compared to xenon in W	300 W
Color temperature	6500 K
Brightness control	0 - 100%
Noise level	25 dB(A)
Operating mode	Continuous operation
Operating conditions	+10°C to +40°C, 30% to 75% rel. humidity, atmospheric pressure 700 hPa to 1060 hPa
Equipment	
Supported light cables	Wolf, Storz, Olympus, ACMI
IP rating	IP20
Cooling method	Passive heatpipe, fan
Power supply	
Mains + frequency	100-240 VAC, 50/60 Hz
Power consumption	150 VA
Current rating	1.1-0.6 A
Regulatory standards	
Safety	EU: EN 60601-1
EMC	EN 60601-1-2 / IEC 601-1-2
Medical device class	Class 1
Classification	CF
Dimensions and weight	
Weight	10.5 kg
Dimensions (W x H x D)	300 x 160 x 421 mm

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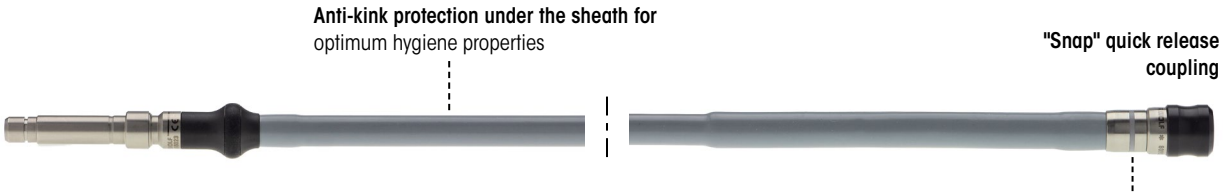
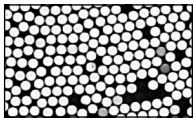
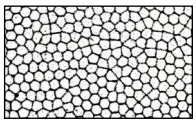
fusion Fiber light cable



The color ring system for the handle at the endoscope side allows you to easily and quickly assign the matching light cable to the endoscope in use.



Standard
Light cables with adhesive



fusion
High-temperature-resistant
light cables

ø 5.0 mm	gray

Innovative color coding system

- Improved light transmission thanks to a special design
- High-performance fiber optic material "made in Germany"
- Fast "snap-on" precision connection between endoscope and light cable
- Anti-kink protection made of steel allows for a particularly high number of usage cycles
- Suitable for low-temperature procedure
- Steam-sterilizable
- Adapters for compatibility with light sources and endoscopes from different manufacturers
- Standardized color coding of light cables and endoscopes based on their diameters

fusion

Fiber light cable are exclusively available with 5.0 mm fiber diameter

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Fusion
Fiber light cable

Fusion Fiber light cable, complete	Color coding on endoscope side	Ø of fiber bundle and color code	Length	Fiber light cable without adapter Product no.	Complete Product no.
 Fiber light cable, bndl Comprising: Fiber light cable, Adapter, projector side (8095.07), and adapter, endoscope side (809509)		5.0 mm gray	2.3 m	80655023*	**806550231**
			3.0 m	80655030*	**806550301**
			3.5 m	80655035*	**806550351**

* The Fusion light cables can also be ordered without adapter. Adapters for connecting products from other manufacturers are offered as separate items in our product range.

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Universal device cart RIWOmobil

All RIWOmobil variants
have the following properties in common:

- Integrated cable duct
- 3 shelf units (width 370 mm), 2 of which continuously adjustable
- 4 double casters, 2 of which with dual-function locking (directional locking/freewheeling/full locking)
- Side profiles made of aluminum with mounting points for installing swivel arms and attaching a wide range of accessories
- Dimensions (W x H x D): 720 x 1518 x 700 mm
- 2 casters with dual conductivity
- Color: White, RAL 9016

RIWOmobil features the following advantages:

- Order-specific production
  Each cart is configured and built according to the customer's individual demands.
  Any additionally selected shelf units and drawers are installed, adjusted and tested directly in the production process.
- Quality and value preservation
  All components are designed for longevity and high loads.
- Safety
  All mechanical and electrical components are subjected to our permanent quality control process.
- Ergonomics
  On all RIWOmobil variants, the monitor position can be adapted to the demands of the operating team.
  Height-adjustable shelf units and device handles on the cart provide individual adaptation options.

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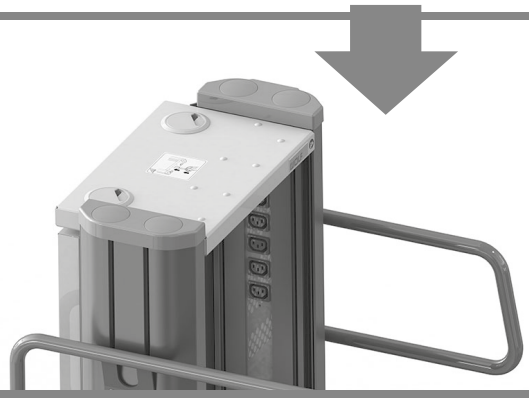
Universal device cart RIWOmobil

Your optimum RIWOmobil in just 3 steps

1. Where to place the monitors?

RIWOmobil provides the option of positioning a swivel arm either in the center on the bridge or laterally in the side profile.
As an alternative, a monitor mount can also be used to position a monitor in the center of the bridge.



2. Which electrics variant?

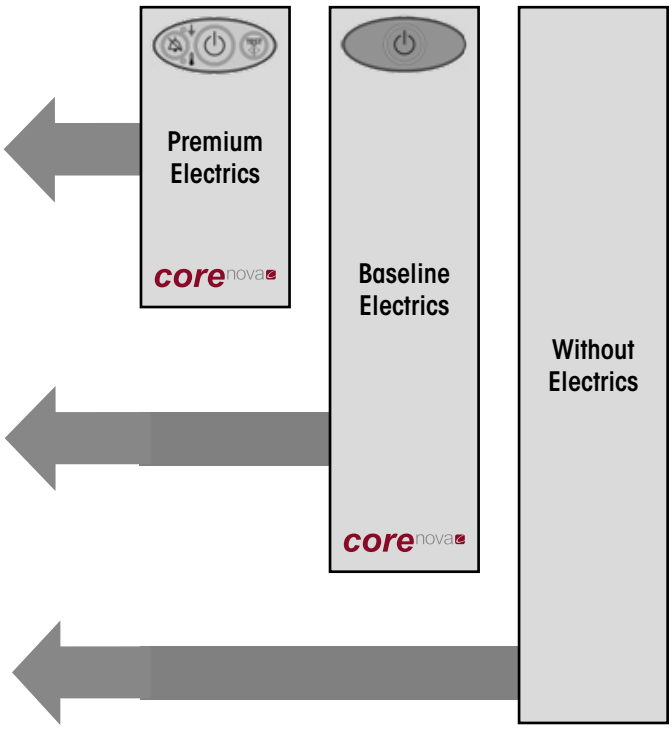
The b**aseline electrics with a main switch i**ntegrated in the aluminum profile, distributor strip with 12 device connections.
The p**remium electrics variant for highest demands includes the following elements in addition to the b**aseline equipment: isolating transformer and insulation monitoring unit with safety monitoring.

3. Which operating voltage?

RIWOmobil with premium electrics
(for accessories, see section Device cart accessories)
Comprising:
Basic housing (premium version) with integrated isolating transformer, insulation monitoring unit, socket strip with main switch module, insulation monitor display and 12 sockets, 6 device connection cables, power cable 5.5 m,
Isolating transformer 220-230V, 2000VA.....**32116015**
Isolating transformer 100-120V, 1700VA.....**32116013**

RIWOmobil with baseline electrics
(for accessories, see section Device cart accessories)
Comprising:
Basic housing (baseline version), socket strip with 12 sockets and integrated main switch module, 6 device connection cables, power cable 5.5 m,
Version with 220-240V, 2000VA **32116014**
Version with 100-120V, 1700VA **32116012**

RIWOmobil without electrical equipment
For mounting swivel arms **32116011**



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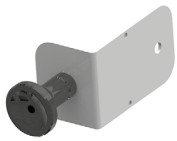
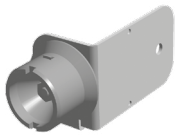
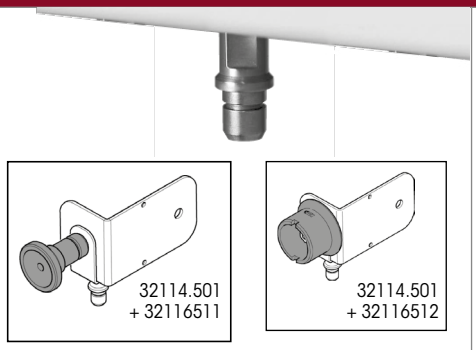
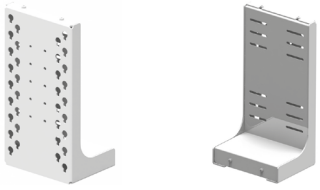
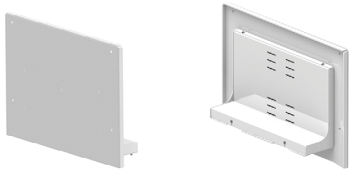
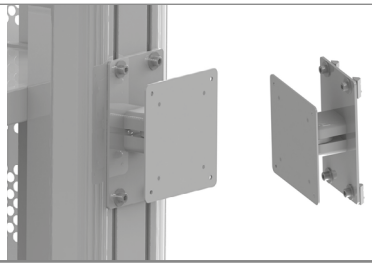
RIWOmobil
Accessories

Camera holding bracket for universal use with standard and RIWO lenses		Product no.
	**Camera holding bracket** For universal use with standard and RIWO lenses	32116511
	**Camera holding bracket** for mounting 3DHD camera heads	**32116512**
Light cable holder for mounting light cables with R.Wolf connection		
	**Light cable holder**	**32114501**
Monitor mounting bracket		
	**Monitor mounting bracket VESA 75 x 100** Monitor mounting bracket for installation on the bridge.	321165001
	**Monitor mounting bracket VESA 200 x 400** Monitor mounting bracket for installation on the bridge.	**32116472**
	**Monitor mounting bracket, lateral, VESA 75/100** incl. adapter plate for lateral installation on RIWOmobil. Inclining or swiveling, maximum load: 15 kg, length: 5.5 cm	**32116451**

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RIWOmobil
Accessories

Infusion bottle holder		Product no.
	Infusion bottle holder adjustable from 1.6 m to 2.6 m, load capacity max. 8 kg	**32114.521**
CO_2		
 CO_2 bottle holder, 1 L CO_2 bottle holder, 10 L	**CO_2 bottle holder, 1 L** for bottle ø up to max. 90 mm, load capacity max. 5 kg	**32114.531**
	CO_2 bottle holder, 10 L for bottle ø up to max. 160 mm, load capacity max. 35 kg	**32114.535**
Lateral holder		
	Holder for hand-held remote control or camera head connector	**64030.106**
Footswitch tray and bracket		
 Footswitch tray Universal holder	**Footswitch tray** load capacity max. 3 kg	**32114.541**
	Universal holder load capacity max. 3 kg	**32114.545**

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ENDOVUE® 24”

- *Outstanding image quality*
- *Multi-modality imaging capabilities*
- *Low power consumption and fanless cooling*
- *Robust and reliable*
- *Minimum cost of ownership*

ENDOVUE HD

HIGH-END DISPLAY VISUALIZATION

For the medical professional seeking to maximize their capital investment and upgrade their aging monitor, the EndoVue® series delivers the image performance of a high-end display at a value price.

EndoVue is a versatile visualization platform, compatible with medical cameras and other visualization system from leading manufacturers. Designed and built for medical use, it is FDA listed, TUV certified, and CE marked, offering patient safety, clinical performance, and durability compared to non-medical grade displays.

The EndoVue display accommodates standard analog and digital high-definition signals from a variety of medical imaging sources. It features a fanless cooling design to minimize the risk of spreading airborne contaminants within the sterile field, and industry-leading LED backlight technology for reduced power consumption.

TECHNICAL SPECIFICATIONS

IMAGE PERFORMANCE	
Screen Size (Diagonal)	24"
Image Size	20.4" x 12.8"/518 x 324mm
Native Resolution (H x V)	1920 x 1200
Aspect Ratio	16:10
View Angle	178°
Luminance	300 cd/m^2 (Typical)
Contrast Ratio	1,100:1 (Typical)
Number of Colors	16.7 Million (8-bit)
Response Time	14 ms (Typical)

GENERAL	
Dimensions (W x H x D)	21.9" x 16.1" x 2.8"/566 x 408 x 70 mm
Warranty	1 Year
Display Weight	14.7 lbs (6.7 kg)
Shipping Weight*	22 lbs (9.9 kg)
Shipping Dimensions	25" x 8" x 23"/64 x 21 x 59 cm
Green Compliance	REACH, RoHS-3, WEEE, Conflict Minerals

ACCESSORIES	
Included Accessories	Power Supply, 100-240 VAC, 50-60 Hz to 24 VDC, 2.7 A AC power cord, region appropriate
Optional Accessories	Display Stand - 19", 21", 24" (90Z0239) Fiber Converter 5 VDC Power Cable (35X0100)

CONNECTIVITY	SIGNAL TYPE
Video Inputs	DVI-D
	RGBS/VGA/YPbPr (HD-15 or DVI-I via adapter)
	S-Video
	Composite
Video Outputs	DVI-D

REGULATORY COMPLIANCE

ANSI/AAMI ES60601-1, CAN/CSA C22.2 No. 60601-1, CAN ICES-3(B)/NMB-3(B), FCC Class B, EN60601-1, EN60601-1-2, CE, MDR 2017/745, CCC, EAC, Class I Medical Device

ORDERING INFORMATION	
90K0073	EndoVue 24" - China
90K0076	EndoVue 24" - America, Japan, EMEA

CONTACT INFORMATION

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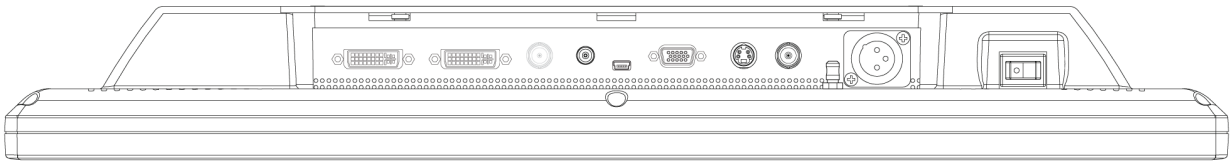
Chao Yang District
Beijing, 100026, China
+86 10 8559 7859
info@ndssi.com.cn

CONNECTOR PANEL



** Shipping weights are approximate*

United States | Canada | Japan | China | Russia | Belarus | Kazakhstan | Armenia | Austria | Belgium | Bulgaria | Croatia | Czech Republic | Denmark | Estonia | Finland | France | Germany | Greece | Hungary | Ireland | Italy | Latvia | Lithuania | Luxembourg | Malta | Netherlands | Poland | Portugal | Romania | Slovenia | Slovakia | Spain | Sweden | United Kingdom

NDS Quality System
ISO 13485 FDA Registration #2854921
Document 72D0050 Rev. H

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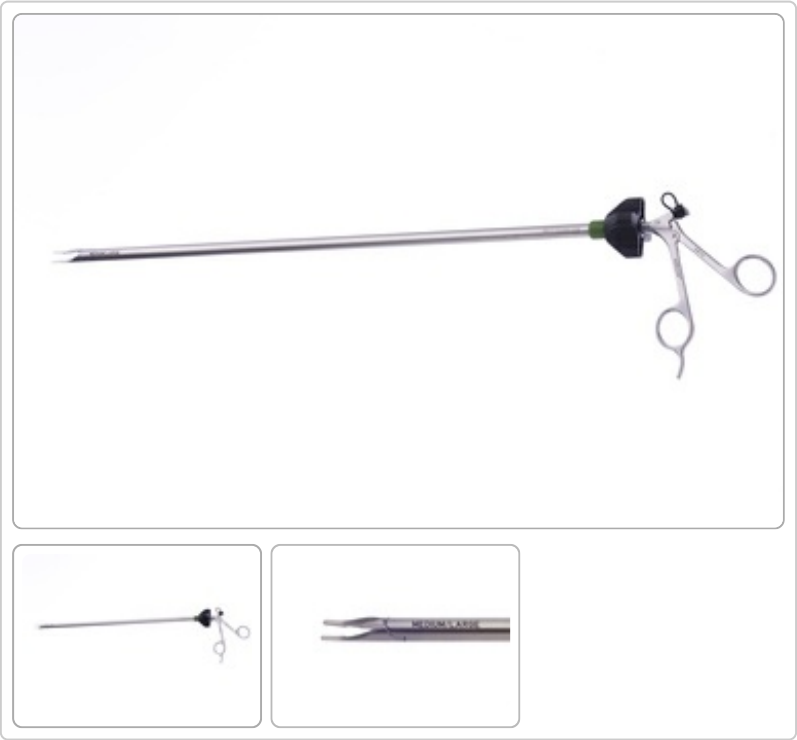
NDS
A Novanta Company

Catalog # :
338170

Horizon™ Endoscopic Ligating Clip Appliers

Description:

Medium/Large, 10mm endoscopic, 18" (45 cm)



United States

To order this product, please call:

866-246-6990

Canada

To order this product, please call:

800-387-9699

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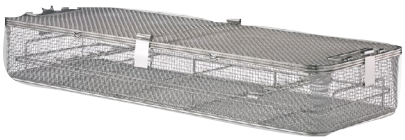
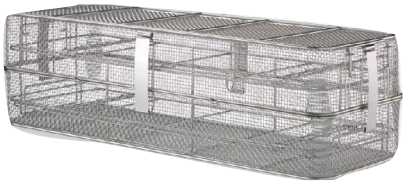
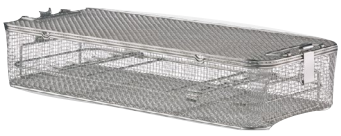
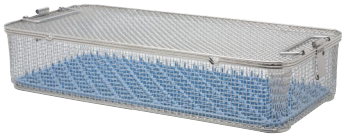
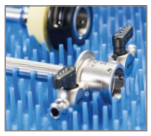
BASKET SYSTEM

Illustration	Description	Product no.
 **Universal perforated basket 1** with instrument separator (2)	Holds: Instrument and accessories, for sterilization (steam and low-temperature), storage and transport, with instrument separator (2), inner dimensions (WxHxD): 709x88x259mm, outer dimensions (WxHxD): 732x117x282mm	**33001**
 **Universal perforated basket 2** with instrument separator (4)	Holds: Instrument and accessories, for sterilization (steam and low-temperature), storage and transport, with instrument separator (4), inner dimensions (WxHxD): 709x186x259mm, outer dimensions (WxHxD): 743x200x282mm	**33002**
 **Universal perforated basket 3** with instrument separator (2)	Holds: Instrument and accessories, for sterilization (steam and low-temperature), storage and transport, with instrument separator (2), inner dimensions (WxHxD): 513x95x233mm, outer dimensions (WxHxD): 538x117x250mm	**33003***
 **Universal perforated basket 4**	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, inner dimensions (WxHxD): 513x95x233mm, outer dimensions (WxHxD): 538x117x250mm	**33004***
 Universal perforated basket 5 with instrument separator (4)	Holds: Instrument and accessories, for sterilization (steam and low-temperature), storage and transport, with instrument separator (4), inner dimensions (WxHxD): 513x184x233mm, outer dimensions (WxHxD): 549x200x250mm	**33005***

* suitable for standard container

X21 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

RIWO SYSTEM TRAYS

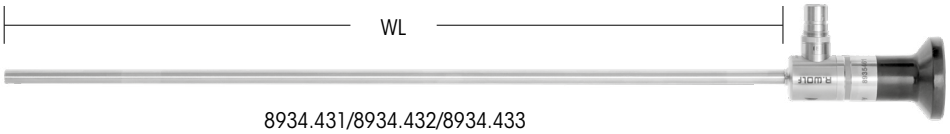


	Description	Product no.
Container (WxHxD) 300x60x120mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 300x57x120mm, outer dimensions (WxHxD): 366x77x186mm	**33019**
Container (WxHxD) 300x60x200mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 300x57x200mm, outer dimensions (WxHxD): 366x77x266mm	**33020**
Container (WxHxD) 400x60x120mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 400x57x120mm, outer dimensions (WxHxD): 466x77x186mm	**33021**
Container (WxHxD) 400x60x200mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 400x57x200mm, outer dimensions (WxHxD): 466x77x266mm	**33022**
Container (WxHxD) 500x60x120mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 500x57x120mm, outer dimensions (WxHxD): 566x77x186mm	**33023**
Container (WxHxD) 500x60x200mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 500x57x200mm, outer dimensions (WxHxD): 566x77x266mm	**33024**
Container (WxHxD) 500x75x120mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 500x73x120mm, outer dimensions (WxHxD): 566x92x186mm	**33017**
Container (WxHxD) 600x60x200mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 600x57x200mm, outer dimensions (WxHxD): 666x77x266mm	**33025**
Container (WxHxD) 700x60x120mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 700x57x120mm, outer dimensions (WxHxD): 766x77x186mm	**33026**
Container (WxHxD) 700x60x200mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 700x57x200mm, outer dimensions (WxHxD): 766x77x266mm	**33027**
Container (WxHxD) 700x75x120mm	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (WxHxD): 700x73x120mm, outer dimensions (WxHxD): 766x92x186mm	**33018**

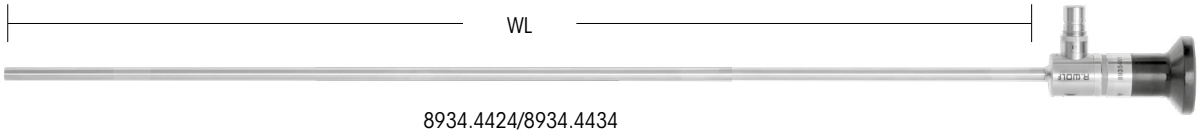
X21 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

LAPAROSCOPES 10 MM

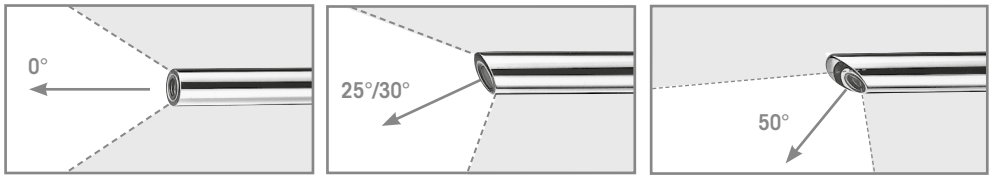
free of distortion



8934.431/8934.432/8934.433



8934.4424/8934.4434



AUTOCLAVE
134° C / 273° F

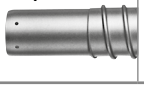
	Direction of view	WL	TL	Ø	Product no.
PANOVIEW **Telescope 0° Ø 10 mm WL 307 mm**	0°	307 mm	375 mm	10 mm	**8934.431**
PANOVIEW **Telescope 30° Ø 10 mm WL 307 mm**	30°	307 mm	375 mm		**8934.432**
PANOVIEW **Telescope 50° Ø 10 mm WL 310 mm**	50°	310 mm	378 mm		**8934.433**
PANOVIEW PLUS **Telescope 25° Ø 10 mm WL 438 mm**	25°	438 mm	507 mm		**8934.4424**
PANOVIEW PLUS **Telescope 50° Ø 10 mm WL 447 mm**	50°	447 mm	516 mm		**8934.4434**

Recommended accessories		Product no.
Perforated basket for standard telescope 2 (for telescope 8934.431/.432/.433)	(W x H x D) 481 x 54 x 59 mm	**38016**
Perforated basket for standard telescope 3 (for telescope 8934.4424/.4434)	(W x H x D) 619 x 54 x 59 mm	**38017**
Fiber lightcable bndl consisting of: Fiber light cable Ø 5 mm TL 2.3 m (80665023), projector-side adapter (8095.07), and endoscope-side adapter (809509)	Ø 5.0 mm, 2.3 m long	**806650231**
Fusion **Fiber light cable bndl** consisting of: Fiber light cable Ø 5 mm TL 2.3 m (80655023), projector-side adapter (8095.07), and endoscope-side adapter (809509)	Ø 5.0 mm, 2.3 m long	**806550231**

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

TROCAR SLEEVES 5.5 MM

RIWO-ART trocar sleeves
with magnetic ball valve
with insufflation stopcock

				Tip tapered/blunt	Tip tapered/ pointed	Tip triangular
				Trocar tip blunt Size 5.5 mm	Trocar tip pointed Size 5.5 mm	Trocar tip triangular Size 5.5 mm
Stainless steel sheath tube	**WL**	**Capacity**	**Product no.**	**WL 169 mm**	**WL 169 mm**	**WL 169 mm**
Trocar sleeve straight capacity 5.5 mm **WL 100 mm** smooth	100 mm	5.5 mm	**8921.014**	**8921.103**	**8921.113**	**8921.123**
Trocar sleeve slanted capacity 5.5 mm **WL 100 mm** smooth	100 mm	5.5 mm	**8921.013**	**8921.103**	**8921.113**	**8921.123**
Trocar sleeve straight capacity 5.5 mm **WL 100 mm** with thread	100 mm	5.5 mm	**8921.024**	**8921.103**	**8921.113**	**8921.123**
Trocar sleeve slanted capacity 5.5 mm **WL 100 mm** with thread	100 mm	5.5 mm	**8921.023**	**8921.103**	**8921.113**	**8921.123**
Plastic tube **Trocar sleeve straight capacity 5.5 mm** **WL 100 mm** with thread	100 mm	5.5 mm	**8921.034**	**8921.103**	**8921.113**	**8921.123**
				WL 219 mm	WL 219 mm	WL 219 mm
Trocar sleeve straight capacity 5.5 mm **WL 150 mm** smooth	150 mm	5.5 mm	**8921.016**	**8921.105**	**8921.115**	**8921.125**
Trocar sleeve straight capacity 5.5 mm **WL 150 mm** with thread 	150 mm	5.5 mm	**8921.026**	**8921.105**	**8921.115**	**8921.125**

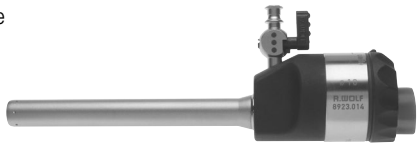
Accessories	Product no.
Spare ball capacity 5.5 mm	**8921.901**
Spare O rings capacity 3.5 mm (PACK= 10 PCS), capacity Ø 3.5–5.5 mm	**8921.951**
Sealing cap capacity 3.4–5.1 mm (PACK= 10 PCS) blue	**89.02**
Stopcock insert bndl cap. 3.0 mm (PACK= 5 PCS)	**896.0002**

1123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

TROCAR SLEEVE 10 MM

WITH INSUFFLATION STOPCOCK

RIWO-ART trocar sleeves
with magnetic ball valve



Stainless steel sheath tube	WL	Capacity	Product no.	Tip tapered/blunt Trocar tip blunt Size 10 mm	Tip tapered/pointed Trocar tip pointed Size 10 mm	Tip triangular Trocar tip triangular Size 10 mm
				WL 164 mm	WL 164 mm	WL 164 mm
Trocar sleeve straight capacity 10 mm WL 100 mm	100 mm	10 mm	**8923.014**	**8923.103**	**8923.113**	**8923.123**
Trocar sleeve slanted capacity 10 mm WL 100 mm	100 mm	10 mm	**8923.013**	**8923.103**	**8923.113**	**8923.123**
Trocar sleeve straight capacity 10 mm WL 100 mm with thread	100 mm	10 mm	**8923.024**	**8923.103**	**8923.113**	**8923.123**
Trocar sleeve slanted capacity 10 mm WL 100 mm with thread	100 mm	10 mm	**8923.023**	**8923.103**	**8923.113**	**8923.123**
				WL 214 mm	WL 214 mm	WL 214 mm
Trocar sleeve straight capacity 10 mm WL 150 mm	150 mm	10 mm	**8923.016**	-	**8923.115**	**8923.125**
Trocar sleeve straight capacity 10 mm WL 150 mm with thread	150 mm	10 mm	**8923.026**	-	**8923.115**	**8923.125**

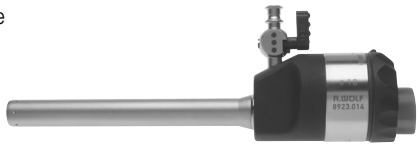
Accessories	Product no.
Spare ball capacity 7 mm	**8923901**
Spare O rings capacity 7 mm (PACK= 10 PCS), capacity Ø 7–12.5 mm	**8923951**
Sealing cap capacity 9.5–10.1 mm (PACK= 10 PCS) red	**8908**
Stopcock insert bndl cap. 3.0 mm (PACK= 5 PCS)	**896.0002**

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

TROCAR SLEEVE 12.5 MM

WITH INSUFFLATION STOPCOCK

RIWO-ART trocar sleeves with magnetic ball valve



				Tip tapered/blunt	Tip tapered/pointed	Tip triangular
				Trocar tip blunt Size 12.7 mm	Trocar tip pointed Size 12.7 mm	Trocar tip triangular Size 12.7 mm
Stainless steel sheath tube	WL	Capacity	Product no.	WL 164 mm	WL 164 mm	WL 164 mm
Trocar sleeve straight capacity 12.5 mm WL 100 mm	100 mm	12.5 mm	**8924.014**	**8924.103**	**8924.113**	**8924.123**
Trocar sleeve slanted capacity 12.5 mm WL 100 mm	100 mm	12.5 mm	**8924.013**	**8924.103**	**8924.113**	**8924.123**
Trocar sleeve straight capacity 12.5 mm WL 100 mm with thread	100 mm	12.5 mm	**8924.026**	-	**8924.115**	**8924.125**
					WL 214 mm	WL 214 mm
Trocar sleeve straight capacity 12.5 mm WL 150 mm	150 mm	12.5 mm	**8924.016**	-	**8924.115**	**8924.125**
for this:						
Reducing adapter (PACK= 5 PCS)			for reduction from Ø 10 mm to Ø 5.5 mm and Ø 12.5 mm to Ø 5.5 mm			**8923.802**
			for reduction from Ø 12.5 mm to Ø 10 mm			**8924.802**

Accessories	Product no.
Spare ball capacity 7 mm	**8923.901**
Spare O rings capacity 7 mm (PACK= 10 PCS), capacity Ø 7–12.5 mm	**8923.951**
Sealing cap capacity 9.5–10.1 mm (PACK= 10 PCS) red	**89.08**
Stopcock insert bndl cap. 3.0 mm (PACK= 5 PCS)	**896.0002**

||123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 5.0 MM, INSULATED

		Handle, axial				
ERAGON axial All jaw inserts and sheath tubes can be combined with **ERAGONaxial**						
		with lock	without lock, with HF connector	without lock, with HF connector	with lock, not rotatable	
Rotatable knob	**Product no.**	83930082	83930083	83930084	83930085	
	8988	•	•	•		

Jaw insert						**Complete instrument** • Jaw insert with sheath tube • Handle
			SL 330 mm	SL 450 mm	with lock, with HF, mono	
	JL*	**Product no.**	8393933	8394933	83930074	**Product no.**
Maryland dissector forceps mono Ø 5 mm bndl curved, with fine cross toothing, double-action	21 mm	8393.281	•		•	**83932817**
		8394.281		•	•	**83942817**
Mixter dissector forceps mono Ø 5 mm bndl angled, fine, pyramid-shaped toothing, double-action	22 mm	8393.283	•		•	**83932837**
Grasping forceps, mono Ø 5 mm bndl fenestrated, with fine cross toothing, 15 mm long, single-action	21 mm	8393.185	•		•	**83931857**
Grasping forceps, mono Ø 5 mm bndl fenestrated, with fine cross toothing, 20 mm long, single-action	26 mm	8393.184	•		•	83931847
		8394.184		•	•	**83941847**

* JL = jaw length when jaw section closed (approximate measurements)

HF connection cable: see sheet BDE116/117

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 5.0 MM, INSULATED

Jaw insert			Sheath tube, Ø 5.0 mm, insulated			Handle, pistol-shaped			Complete instrument • Jaw insert with sheath tube • Handle
			SL 260 mm	SL 330 mm	SL 450 mm	with lock, without HF	without lock, with HF, mono	with lock, with HF, mono	
	JL*	Product no.	8392933	8393933	8394933	83930072	83930073	83930074	Product no.
Dolphin dissector forceps mono Ø 5 mm bndl angled, with fine cross-toothing, with channel, narrow, 15 mm long, double-action	17 mm	8393.285		•			•		**83932857**
Dissector forceps mono Ø 5 mm bndl fine pyramid-shaped toothing, narrow, 18 mm, double-action	23 mm	8393.289		•				•	**83932897**
Atraumatic grasping forceps Ø 5 mm bndl Channel with wavy tooth edge, 20 mm, single-action	26 mm	8393.292		•		•			**83932925**
Atraumatic grasping forceps Ø 5 mm bndl Channel with wavy tooth edge, 20 mm, double-action	26 mm	8393.293		•		•			**83932935**
		8394.293			•	•			**83942935**
Grasping forceps, mono Ø 5 mm bndl fine, pyramid-shaped toothing, narrow double-action	19 mm	8393.288		•				•	**83932887**
Atraumatic grasping forceps mono Ø 5 mm bndl fenestrated, with cross toothing, double-action	19 mm	8392.181	•					•	**83921817**
		8393.181		•				•	**83931817**
		8394.181			•			•	**83941817**

* JL = jaw length when jaw section closed (approximate measurements)

HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 5.0 MM, INSULATED

Jaw insert					Handle, pistol-shaped		Complete instrument • Jaw insert with sheath tube • Handle
			SL 330 mm	SL 450 mm	with lock, without HF	with lock, with HF, mono	
	JL*	Product no.	8393933	8394933	83930072	83930074	Product no.
Debakey forceps Ø 5 mm bndl atraumatic clamp, double-action	48 mm	8393191	•		•		**83931917**
Grasping forceps, mono Ø 5 mm bndl with a row of teeth, double-action	17 mm	8393.485	•			•	**83934857**
Grasping forceps, mono Ø 5 mm bndl with one tooth, fine cross toothing, narrow, double-action	19 mm	8393.486	•			•	**83934867**
Grasping forceps, mono Ø 5 mm bndl with two teeth, fine cross toothing, single-action	17 mm	8393.487	•			•	**83934877**
Grasping forceps Ø 5 mm bndl with two teeth wavy gripping surface, double-action	26 mm	8393.490	•		•		**83934907**
		8394.490		•	•		**83944907**
Petelin dissector forceps mono Ø 5 mm bndl angled 30° to the left, with cross toothing, single-action	17 mm	8393.282	•			•	**83932827**

* JL = jaw length when jaw section closed (approximate measurements)
HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 5.0 MM, INSULATED

Jaw insert					Handle, pistol-shaped		Complete instrument • Jaw insert with sheath tube • Handle
			SL 330 mm	SL450 mm	with lock, without HF	with lock, with HF, mono	
	JL*	Product no.	8393933	8394933	83930072	83930074	Product no.
Debakey forceps Ø 5 mm bndl atraumatic, spring jaw sections with cross toothing, double-action	47 mm	8393.291	•		•		**83932917**
Dissector forceps mono Ø 5 mm bndl angled, double-action	18 mm	8393192	•			•	**83931927**
		8394192		•		•	**83941927**
Grasping forceps, mono Ø 5 mm bndl double-action	16 mm	8393193	•		•		**83931937**
		8394193		•	•		**83941937**
Dissector forceps mono Ø 5 mm bndl double-action	24 mm	8393194	•			•	**83931947**
		8394194		•		•	**83941947**
Dissector forceps mono Ø 5 mm bndl double-action	30 mm	8393197	•			•	**83931977**
		8394197		•		•	**83941977**
Dissector forceps mono Ø 5 mm bndl fine tips double-action	33 mm	8393198	•			•	**83931987**
		8394198		•		•	**83941987**

* JL = jaw length when jaw section closed (approximate measurements)
HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 5.0 MM, INSULATED

Jaw insert					Handle, pistol-shaped		Complete instrument • Jaw insert with sheath tube • Handle
			SL 330 mm	SL 450 mm	with lock, without HF	with lock, with HF, mono	
	JL*	Product no.:	8393933	8394933	83930072	83930074	Product no.:
Atraumatic grasping forceps Ø 5 mm bndl atraumatic, with pyramid-shaped toothing and cross toothing, double-action	29 mm	8393223	•		•		**83932237**
		8394223		•	•		**83942237**
Atraumatic grasping forceps Ø 5 mm bndl atraumatic, single fenestrated with cross toothing, double-action	25 mm	8393250	•		•		**83932507**
		8394250		•	•		**83942507**
Atraumatic grasping forceps Ø 5 mm bndl atraumatic, double fenestrated and curved single-action	32 mm	8393229	•		•		**83932297**
		8394229		•	•		**83942297**
Grasping forceps Ø 5 mm bndl atraumatic, narrow and rounded, double-action	15 mm	8393230	•		•		**83932307**
		8394230		•	•		**83942307**
Dissector forceps mono Ø 5 mm bndl curved, double-action	19 mm	8393240	•			•	**83932407**
		8394240		•		•	**83942407**
Dissector forceps mono Ø 5 mm bndl single fenestrated double-action	17 mm	8393242	•		•		**83932427**
		8394242		•	•		**83942427**

* JL = jaw length when jaw section closed (approximate measurements)
HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 10 MM, UNINSULATED

		Handle, axial		
ERAGON axial All jaw inserts and sheath tubes can also be combined with **ERAGONaxial**				
		with lock, without HF connector	with lock, without HF connector, not rotatable	
Rotatable knob	**Product no.**	83930082	83930085	
	8988	•		

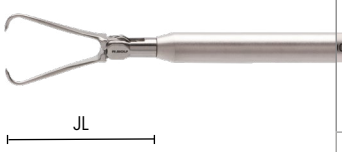
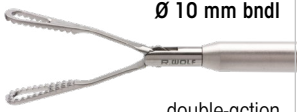
Jaw insert			Sheath tube, Ø 10.0 mm, insulated		Handle, pistol-shaped	Complete instrument • Jaw insert with sheath tube • Handle
			SL 327 mm	SL 447 mm	with lock, without HF	
	JL*	**Product no.**	8395902	8396902	83930072	**Product no.**
Maryland dissector forceps Ø 10 mm bndl double-action	36 mm	8395.225	•		•	**83952257**
		8396225		•	•	**83962257**
Dissector forceps Ø 10 mm bndl angled, double-action	35 mm	8395.226	•		•	**83952268**
		8396226		•	•	**83962267**
Grasping forceps Ø 10 mm bndl Pike-mouth double-action	20 mm	8395.236	•		•	**83952368**
		8396236		•	•	**83962367**
Grasping forceps Ø 10 mm bndl 2/3 jaws single-action	49 mm	8395.204	•		•	**83952048**
		8396204		•	•	**83952047**

* JL = jaw length when jaw section closed (approximate measurements)
HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON modular

Ø 10 MM, UNINSULATED

Jaw insert			Sheath tube, Ø 10.0 mm, insulated			Handle, pistol-shaped		Complete instrument • Jaw insert with sheath tube • Handle
								
			SL 327 mm	SL 447 mm	SL 387 mm	with lock, without HF		
	JL*	Product no.	8395902	8396902	8397902	83930072	83930082	Product no.
Claw grasping forceps Ø 10 mm bndl double-action	38 mm	8395.489	•			•		**83954897**
Claw grasping forceps Ø 10 mm bndl with additional row of teeth, double-action	38 mm	8395490	•			•		**83954907**
Babcock forceps Ø 10 mm bndl large distal gripping surface with fine cross toothing, double-action	42 mm	8395.187	•			•		**83951877**
		8396187		•		•		**83961877**
Babcock forceps Ø 10 mm bndl double-action	38 mm	8395.214	•			•		**83952148**
Plate-shaped grasping forceps Ø 10 mm bndl  double-action	50 mm	8395.234	•			•		**83952347**
		8396234		•		•		**83962347**
Spoon forceps Ø 10 mm bndl single-action	31 mm	8395.244	•			•		**83952448**
Stapler head grasping forceps Ø 10 mm bndl angled 30°, double-action		8397.655			•		•	**83976558**

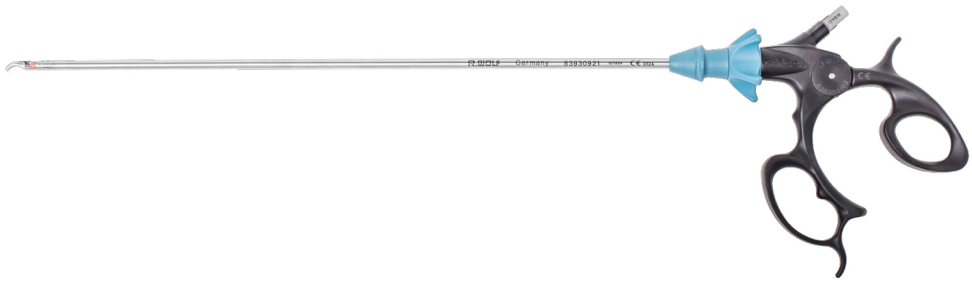
* JL = jaw length when jaw section closed (approximate measurements)/HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON bipolar

MODULAR BIPOLAR INSTRUMENTS, 5.5 MM

ROTATABLE



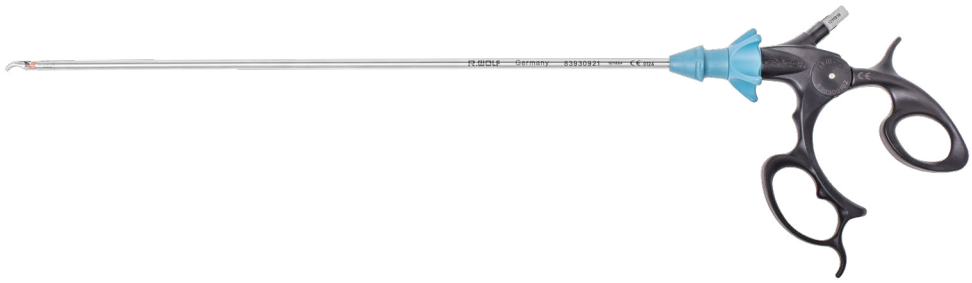
Jaw insert			Sheath tube Ø 5.5 mm		Handle, pistol-shaped, bipo	Complete instrument • Jaw insert • Sheath tube • Handle
			SL 320 mm	SL 435 mm	rotatable	
	JL*	Product no.	83930921	82340024	839300102	Product no.
Grasping forceps bipo Ø 5.5 mm bndl	21 mm	83930031	•		•	839300312
		839400310		•	•	839400312
Maryland dissector bipo Ø 5.5 mm bndl	23 mm	83930032	•		•	839300322
		839400320		•	•	839400322
Dolphin dissector bipo Ø 5.5 mm bndl	21 mm	83930033	•		•	839300332
		839400330		•	•	839400332
Grasping forceps bipo Ø 5.5 mm bndl	23 mm	83930034	•		•	839300342
		839400340		•	•	839400342
Preparation forceps bipo Ø 5.5 mm bndl	19 mm	83930035	•		•	839300352
		839400350		•	•	839400352

* JL = jaw length when jaw section closed (approximate measurements)
Bipolar connection cable: see sheet BDE118/119

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON bipolar

MODULAR BIPOLAR INSTRUMENTS, 5.5 MM, ROTATABLE



Jaw insert			Sheath tube Ø 5.5 mm		Handle, pistol-shaped, bipo	Complete instrument • Jaw insert • Sheath tube • Handle
			SL 320 mm	SL 435 mm	rotatable	
	JL*	Product no.	83930921	82340024	839300102	Product no.
Sterilization forceps bipo Ø 5.5 mm bndl as per Hasskamp	19 mm	83930036	•		•	**839300362**
Münster grasping forceps bipo Ø 5.5 mm bndl	22 mm	83930037	•		•	**839300372**
		83930038	•		•	**839300382**
Maryland dissector bipo Ø 5.5 mm bndl	15 mm	839400380		•	•	**839400382**
Metzenbaum scissors bipo Ø 5.5 mm bndl	22 mm	83930041	•		•	**839300412**
		839400410		•	•	**839400412**

* JL = jaw length when jaw section closed (approximate measurements)
Bipolar connection cable: see sheet BDE118/119

||123|| Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ELECTRODES 5.0 MM

MONOPOLAR

		Outer Ø	WL	Product no.
	Coagulation electrode mono Ø 5 mm WL 330 mm	5.0 mm	330 mm	8383.40
	Coagulation electrode mono Ø 5 mm WL 450 mm	5.0 mm	450 mm	8384.40

		Outer Ø	WL	Product no.
	Hook electrode mono Ø 5 mm WL 340 mm	5.0 mm	340 mm	8383.423
	Hook electrode mono Ø 5 mm WL 420 mm		420 mm	8384.423
	Needle electrode mono Ø 5 mm WL 340 mm	5.0 mm	340 mm	8383.426
	Spatula electrode mono Ø 5 mm WL 340 mm	5.0 mm	340 mm	8383.428
	Myoma dissector mono Ø 5 mm WL 340 mm	5.0 mm	340 mm	8383429

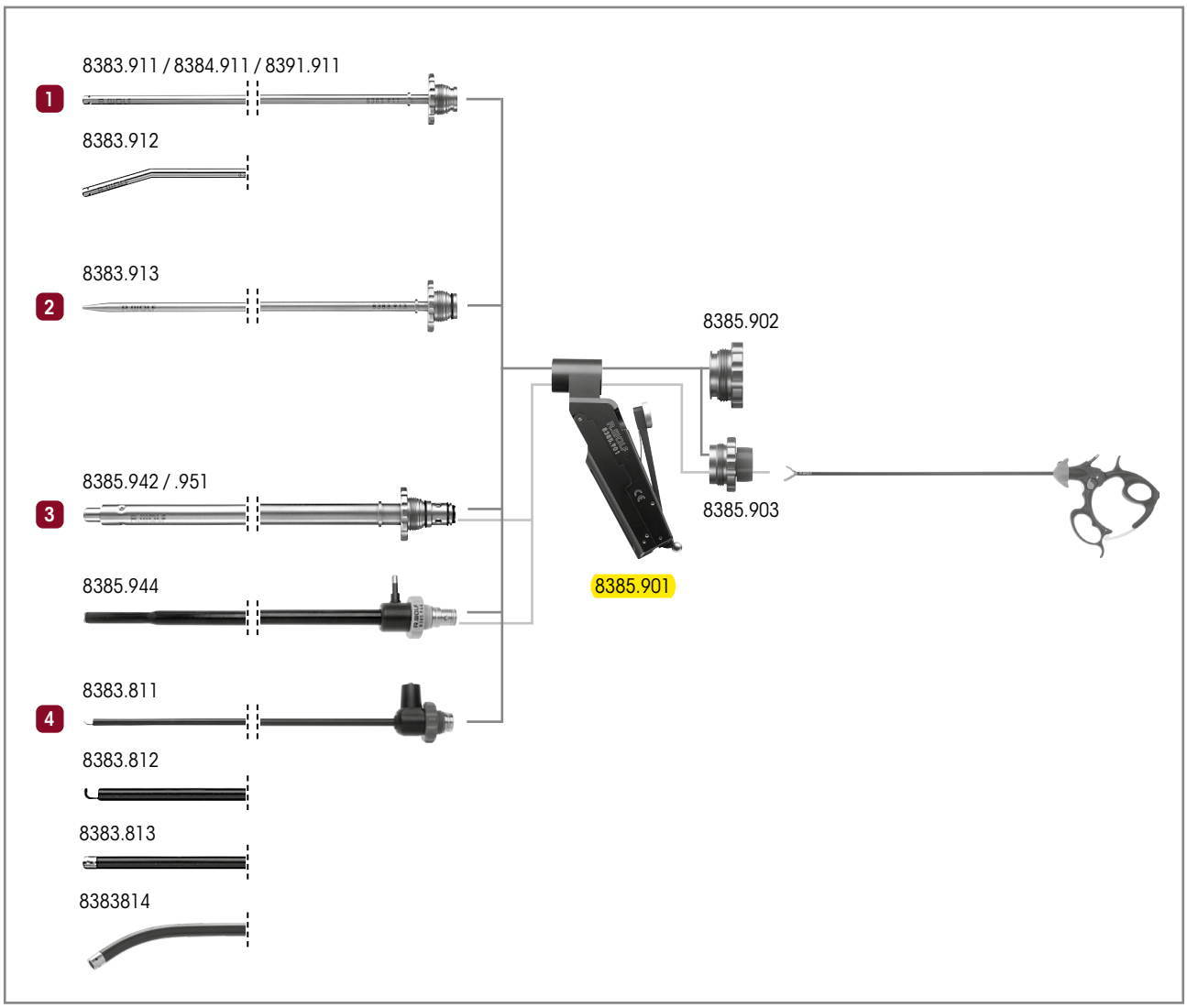
HF connection cable: see sheet BDE116/117

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

RICHARD WOLF
spirit of excellence

MULTIFUNCTIONAL SUCTION IRRIGATION SYSTEM

COMBINATION OPTIONS



1 **Suction or irrigation:**

Suction irrigation tube Ø 5 mm WL 310 mm 8383.911
Suction irrigation tube Ø 5 mm WL 450 mm 8384.911
Suction irrigation tube Ø 3.5 mm WL 300 mm 8391.911
Suction irrigation tube curved Ø 5 mm WL 310 mm... 8383.912
for this: **Sealing cap** 8385.902

2 **Blunt aquadissection:**

Pressure irrigation tube Ø 5 mm WL 310 mm 8383.913
for this: **Sealing cap** 8385.902

3 **Suction, irrigation, and use of auxiliary instruments Ø 5 mm:**

Suction irrigation tube Ø 10 mm WL 225 mm..... 8385.942
Suction irrigation tube Ø 10 mm WL 330 mm 8385951
Suction irrigation tube Ø mono 10 mm WL 330 mm,
insulated, with atraumatic preparation tip 8385.944
for this: **Sealing adapter** 8385.903

4 **Preparation of tissue with HF:**

HF suction irrigation tube Ø 5.2 mm WL 317 mm
insulated with integrated HF spatula probe 8383.811
HF suction irrigation tube Ø 5.2 mm WL 317 mm
insulated with integrated HF hook electrode 8383.812
HF suction irrigation tube Ø 5.2 mm WL 317 mm
insulated with integrated HF button electrode 8383.813
HF suction irrigation tube Ø 5.4 mm WL 380 mm
curved with distal openings,
insulated with integrated HF button electrode 8383.814
for this: **Sealing cap** 8385.902

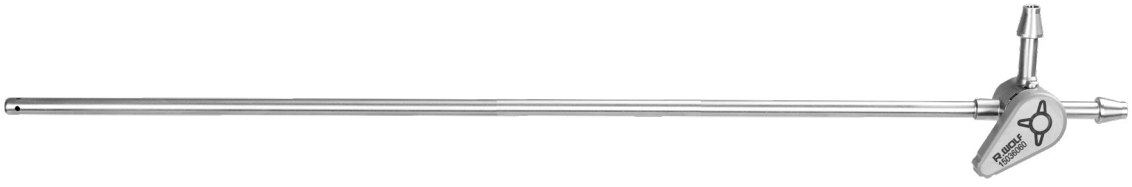
III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ACCESSORIES

FOR SUCTION AND IRRIGATION

		Outer Ø	WL	Product no.
graduated, with 3 mm Luer connector	**Suction tube graduated Ø 5 mm WL 330 mm**	5.0 mm	330 mm	**8383.68**

		Outer Ø	WL	Product no.
with stop valve	**Suction irrigation tube Ø 5 mm WL 300 mm**	5.0 mm	300 mm	**8383.94**



		Outer Ø	WL	Product no.
with maintenance-free two-way stopcock, sheath tube, with distal openings, reusable	**Suction irrigation tube WL 290 mm**	5.0 mm	290 mm	**8583732**
	Suction irrigation tube WL 410 mm	5.0 mm	410 mm	**8584732**

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

TISSUE RETRACTOR 5 MM

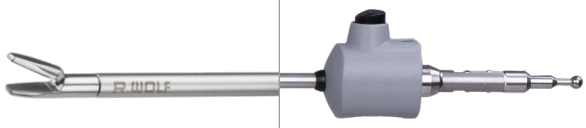
		Outer Ø	WL	Product no.
	tissue retractor **Ø 5 mm WL 320 mm**	5.0 mm	320 mm	**8383.691**

Accessories	Product no.
Luer sealing cap	**887.00**

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

ERAGON stitch

NEEDLE HOLDER Ø 5.0 MM

Needle holder jaw insert			Sheath tube, Ø 5.0 mm		Needle holder handle		Complete instrument • Jaw insert • Sheath tube • Handle
							
			SL 330 mm	SL 450 mm	with on-off detent mechanism, single-action		
					Axial	Angled	
	JL*	Product no.	8393533	8394533	8393943	8393944	Product no.
Needle holder Ø 5 mm bndl curved right with carbide insert single-action	19 mm	8393518	•		•		83935183
			•			•	83935184
		8394518		•	•		83945183
				•		•	83945184
Needle holder Ø 5 mm bndl Curved left with carbide insert single-action	19 mm	8393519	•		•		83935193
			•			•	83935194
		8394519		•	•		83945193
				•		•	83945194

Accessories for manual and machine reprocessing		Product no.
	Irrigation adapter cleaning Ø 9 mm, length 64 mm for uninsulated sheath tubes	163503

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

CANNULAS 3.0 MM/4.7 MM

with Luer connector		Outer Ø	WL	Product no.
Tip Ø 1.4 mm	**Injection cannula Ø 3 mm WL 340 mm**	3.0 mm	340 mm	**8379.732**

with 3 mm Luer connector		Ø	WL	Product no.
Tip Ø 1.8 mm	**Injection cannula Ø 4.7 mm WL 350 mm**	4.7 mm	350 mm	**8383.65**

with suction regulator and 4 mm Luer connector		Ø	WL	Product no.
Tip Ø 1.8 mm	**Puncture cannula Ø 4.7 mm WL 320 mm**	4.7 mm	320 mm	**8383.49**

for this:		WL	Product no.
	Introduction sleeve size 5.5 mm WL 45 mm This sleeve prevents damage to the cannula tip when the trocar sleeve valve is opened	45 mm	**8383.00**

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

INSUFFLATOR HIGHFLOW 45 EVAC

WITH SMOKE GAS EVACUATION

		Product no.
Insufflator 45 EVAC bndl consisting of: Insufflator 45 EVAC FR 45 l/min (2235011), Insufflation tube set L 2.5 m (8170.101), Hygiene filter, sterile, disposable (PACK= 10 PCS) (4171.111), Insufflation tube set L 2.7 m with integrated hygiene filter, sterile, disposable (PACK= 10 PCS) (4170.501) Smoke gas evacuation tube set L 2.7 m, sterile, disposable (PACK= 10 PCS) (4170503) Footswitch with 1 pedal (20301031) and power cable, 3 m long (2440.03)		**22350111**
Accessories: Tube sets for insufflation		
Smoke gas evacuation tube set L 2.7 m, sterile, disposable (PACK= 10 PCS)		**4170503**
Accessories for gas supply		
CO_2 connection tube 1.5 m NIST-NIST		**74021038**
with		
Pressure reducer for CO_2 connector DIN 477-1	DIN 477-1	**74007054**
Pressure reducer for CO_2 connector DIN EN ISO 407	DIN EN ISO 407	**74007055**
Pressure reducer for CO_2 connector ISO 5145	ISO 5145	**74007056**
or		
Connection tube for CO_2 5.0 m DIN for centralized CO_2 gas supply (Dräger)		**74021039**
Connection tube for CO_2 5.0 m NF for centralized CO_2 gas supply (Liquid Air)		**74021040**
Software modules (optional)		
Software module CAN bus CAN bus interface for integration in CORE		**2235101**
Software module BABY MODE BABY MODE for special use in pediatrics		**2235102**
Software module VIDEO DISPLAY: video display using DIALOG via CAN bus		**2235103**

||123|| Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

TECHNICAL DATA

INSUFFLATOR HIGHFLOW 45 EVAC

Insufflator 45 EVAC	2235011
Device properties	
Operating mode	Continuous operation
Operating conditions	+10°C to +40°C, 30% to 75% rel. humidity, atmospheric pressure 700 hPa to 1,060 hPa
Storage and transport conditions	-20°C to +60°C, 10% to 90% rel. humidity, atmospheric pressure 700 hPa to 1,060 hPa
Power supply	
Mains + frequency	100–240 V~, 50/60 Hz
Power consumption	60 VA
Current rating	0.6–0.2 A
Fuse	T 3.15 AH 250 V
Regulatory standards	
Protection class to IEC/EN 60601-1 (UL 60601-1/CSA C222 No6011 – for USA)	I
Electromagnetic compatibility (EMC)	IEC/EN 60601-1-2
Medical Devices Directive 93/42/EEC	Class IIb
Protection against electric shock	Type CF applied part
Degree of protection against the ingress of liquids	IP 20 (not protected)
Degree of protection in the presence of flammable mixtures	Device is not protected against explosions (do not operate this device in explosive atmospheres)
Dimensions and weights	
Weight	8.9 kg (19.5 lbs)
Dimensions (W x H x D)	300 mm x 160 mm x 455 mm

Relevant application parameters	
Insufflation medium	Medical-grade CO_2 (degree of purity > 99.5%)
Intraabdominal pressure	3 mmHg to 25 mmHg (± 2 mmHg) selectable in increments of 1 mmHg
Gas flow rate primary filling	1 l/min (± 50%)
Gas flow rate, High Flow	2 l/min to 45 l/min (± 20%) selectable in increments of 1 l/min
Consumption indicator	0 l to 9,999 l (± 20%)

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FLUID CONTROL LAP 2216

	Product no.
FLUID CONTROL **LAP suction irrigation pump bndl** consisting of: LAP suction irrigation pump (2216001) and power cable 3 m long (2440.03)	22160011

Accessories		Product no.
Bracket	for fixing the suction container on the irrigator stand or MUT cart	**2215.992**
Universal holder	for FLUID CONTROL LAP on RIWOmobil	**32114605**

I123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

LAP SUCTION IRRIGATION PUMP 2216

SUCTION IRRIGATION TUBE SETS

Irrigation			Product no.
Accessories – reusable	**Tube set with piercing spike**	with Luer-Lock connection, autoclavable, incl. 10 spare membranes, reusable for 20 reprocessing cycles	**8171223**
Accessories – disposable	**Irrigation tube set with piercing spike, L 3 m**	(PACK= 10 PCS), with Luer-Lock connection, sterile, disposable product	**4171223**
	Tube set with CARE-LOCK, L 3 m	(PACK= 10 PCS), sterile, disposable product	**4171224**
	Suction irrigation tube set	(PACK= 10 PCS), with piercing spike, sterile disposable product, PVC	**4171225**
	Day irrigation tube set	(PACK= 10 PCS), sterile, disposable product, PVC	**4171226**
	Patient irrigation tube set, sterile	(PACK= 10 PCS), with Luer-Lock connection, sterile, disposable product, PVC	**4171227**
	Note: Day tube and patient tube can only be used together. A new patient tube is required for each patient; the day tube can be used for up to 20 patients		

Suction			Product no.
Accessories – reusable	**Tube set for vacuum, incl. filter**	with integrated hygiene filter, PACK= 10 PCS, service life: 30 days (connected to irrigation pump)	**2206207**
	Irrigation tube	L 1.2 m, with Luer-Lock, for suction irrigation handle 8385.901 and tube set 8171223 or 8170.223	**817123**
	Suction tube L 3 m	for suction irrigation handle 8385.901	**8171402**
	Secretion container, 2 l	2 liters, with lid	**8170.655**
	Secretion container, 2 l	2 liters, no lid	**8170.6551**
Accessories – disposable	**Secretion container, 2.5 l**	2.5 liters (PACK= 2 PCS)	**41706566**
	Secretion container bndl consisting of:	Secretion container 2.5 l (41706566) and secretion bag (PACK= 90 PCS) (41706564)	**4170657**
	Tube set for suction (2 connections)	sterile, disposable product, (PACK= 10 PCS) for connecting instruments to collecting container	**T0503-01**
	Angled 90° plug-in coupling	(PACK= 10 PCS) For connecting vacuum tube 2206207 to disposable container systems	**0771019**

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TECHNICAL DATA

FLUID CONTROL LAP 2216

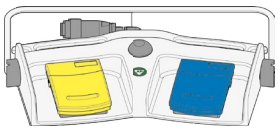
LAP suction irrigation pump		2216001
Device properties		
Operating conditions		+10°C to +40°C, 30% to 75% rel. humidity, atmospheric pressure 700 hPa to 1,060 hPa 3,000 m max. altitude above sea level
Storage conditions		+5°C to +40°C, 5% to 90% rel. humidity, atmospheric pressure 700 hPa to 1,060 hPa
Transport and shipping conditions		-20°C to +60°C, 5% to 90% rel. humidity, atmospheric pressure 700 hPa to 1,060 hPa
Power supply		
Mains + frequency		100–240 V~, 50/60 Hz
Power consumption	100 V/60 Hz	65 VA
	240 V/50 Hz	96 VA
Current rating	100 V/60 Hz	0.65 A
	240 V/50 Hz	0.42 A
Protection class		I
Electromagnetic compatibility (EMC)		IEC 60601-1/EN 60601-1 IEC 60601-1-2/EN 60601-1-2
Medical Devices Directive 93/42/EEC		Class IIa
Protection against electric shock		Type BF applied part
Degree of protection against the ingress of liquids		IP 41
Degree of protection in the presence of flammable mixtures		Device is not protected against explosions (do not operate this device in explosive atmospheres)
Dimensions and weights		
Weight		4 kg
Dimensions (W x H x D) with toggle screw		140 mm x 210 mm x 295 mm

Relevant application parameters	
Maximum delivery rate	Rinsing: 2.0 l/min (± 10%), suction: 2.0 l/min (+0.4/-0.1 l/min)
Maximum pump pressure	400 mmHg (± 50 mmHg)
Motor cut-out	500 mmHg after 5 s (± 25 mmHg)
Suction pressure	between -50 kPa and -60 kPa
Connections	Equipotential bonding, vacuum connection

1123 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

HF GENERATOR 2260

		Product no.
HF surgical generator 400 kHz	for the connection of monopolar and bipolar accessories, international version (BOWA, KLS Martin, Olympus, Karl Storz, Valleylab)	2260001
HF surgical generator 400 kHz	for the connection of monopolar and bipolar accessories, E version (Erbe)	2260002

Accessories required	Cable length	Product no.
Footswitch, 2 pedals L 5 m with fixed connection cable, reusable 		2260021
Neutral electrode for use with high-frequency surgical device, Foil bag with 5 neutral electrodes, (PACK= 50 PCS)		1280H
Mono HF neutral electrode cable, L 4.5 m	4.5 m	2260031
Power cable	3.0 m	2440.03
Bipo HF connection cable L 3 m	3.0 m	8108233
Bipo HF connection cable L 5 m	5.0 m	8108253

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HF GENERATOR 2260

TECHNICAL DATA

HF surgical generator 400kHz		2260001/2260002
Device properties		
Type of controls on housing front		Touch panel
Output power	max.cutting power	400 W
	max.coagulation power	350 W
LF and HF leakage currents		acc. to DIN EN 60601-1 and DIN EN 60601-2-2
Signal level		HF indicator 55 dB(A); adjustable 45–60 dB(A) Alarm 65 dB(A)
Operating conditions		+10°C to +40°C, 30% to 75% rel humidity, 700 hPa to 1,060 hPa atmospheric pressure
Storage and transport conditions		- 20°C to + 60°C, 10% to 90% rel humidity, 700 hPa to 1,060 hPa atmospheric pressure
Power supply		
Mains + frequency		100–240 V~, 50/60 Hz
Power consumption	without HF output	45 VA
	at max. output power	650 VA
Current rating		max. 6.3 A
Fuse		T 6.3 AH 250 V
Regulatory standards		
Protection class to EN/IEC 60601-1 (UL 2601-1/CSA C222 No6011 – for USA)		I
Electromagnetic compatibility (EMC)		EN/IEC 60601-1-2
Medical Devices Directive 93/42/EEC		Class IIb
Degree of protection against the ingress of liquids (DIN EN/IEC 60529)		IPX0
Degree of protection against the ingress of solids		IP2X
Duty factor (duty cycle DC)		Intermittent INT 10 s/30 s corresponding to 25% DC
Protection against electric shock		Model CF applied part, defibrillator-proof
Degree of protection in the presence of flammable mixtures		Device is not protected against explosions (do not operate this device in explosive atmospheres)
Dimensions and weights		
Weight		10.2 kg (22.4 lbs)
Dimensions (W x H x D)		300 x 159 x 419 mm

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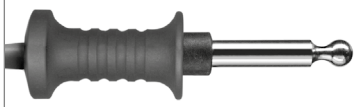
HF CONNECTION CABLE MONO
815xxx

Instrument connector	Device connector		Product no.
WOLF resectoscope 	 Erbe (ACC/ICC)/BOWA (EU) R. Wolf HF surgical generator 400 kHz 2260002	**HF connection cable mono L 3 m**	**815.032**
		HF connection cable mono L 5 m	**815.052**
	 Erbe (T series)	**HF connection cable mono L 3 m**	**815.132**
		HF connection cable mono L 5 m	**815.152**
HF electrodes, monopolar 	 Martin (M-version)/Berchtold/ Aesculap	**HF connection cable mono L 3 m**	**815.031**
		HF connection cable mono L 5 m	**815.051**
	 Bovie/Valleylab/Erbe (Int.)/ BOWA (Int.) R. Wolf HF surgical generator 400 kHz 2260001	**HF connection cable mono L 3 m**	**815.033**
		HF connection cable mono L 5 m	**815.053**
	 BOWA (Int./EU) Eschmann and other devices with 4 mm plugs R. Wolf HF surgical generator 400 kHz 2260001	**HF connection cable mono L 3 m**	**815.034**
		HF connection cable mono L 5 m	**815.054**

III23 || Subject to modifications. Please note that some products may not be available in all countries. Please always take note of the information that is provided with the product. For more detailed information, please consult with your contact partner or directly with Richard Wolf GmbH.

HF CONNECTION CABLE MONO
8106xxx

Instrument connector	Device connector		Product no.
WOLF Instruments/surgical generator	Erbe (ACC/ICC)/BOWA (EU) R. Wolf HF surgical generator 400 kHz 2260002	**HF connection cable mono L 3 m**	**8106.032**
		HF connection cable mono L 5 m	**8106.052**
	Erbe (T series)	**HF connection cable mono L 3 m**	**8106.132**
		HF connection cable mono L 5 m	**8106.152**
HF electrodes, monopolar	Martin (M-version)/Berchtold/ Aesculap	**HF connection cable mono L 3 m**	**8106.031**
		HF connection cable mono L 5 m	**8106.051**
	Bovie/Valleylab/Erbe (Int.)/ BOWA (Int.) R. Wolf HF surgical generator 400 kHz 2260001	**HF connection cable mono L 3 m**	**8106.033**
		HF connection cable mono L 5 m	**8106.053**
	BOWA (Int./EU) Eschmann and other devices with 4 mm plugs R. Wolf HF surgical generator 400 kHz 2260001/2260002	**HF connection cable mono L 3 m**	**8106.034**
		HF connection cable mono L 5 m	**8106.054**

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