

Be flexible



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ENDOCAM Flex HD

The innovative imaging concept

ENDOCAM Flex HD

The innovative imaging concept



Endocam Flex HD is the innovative concept that fulfills the requirement of an easy-to-use, space-saving, and portable imaging system.

With universal connectivity to a large number of endoscopes, **Endocam Flex HD** allows the use of our one-of-a-kind flexible sensor endoscopes along with rigid endoscopes of every type – be flexible!

An attractive price-performance ratio, combined with a customer-oriented service concept, allows **Endocam Flex HD** to fit into any budget.

Be flexible

- **Compact devices** – smaller footprint
- **Plug and Play** for easy use
- **Excellent image quality** and illumination
- **Universal application** with the new flexible endoscopes
- **Optional camera head** for use with existing rigid endoscopes



Genuine Plug and Play:
Just one plug – connect and go.

Just turn it on: Neither white-balancing nor focusing are necessary and brightness control is automatically regulated by **Endocam Flex HD** when using our flexible sensor endoscopes.

**Flexibility =
Experience + Innovation**

ENDOCAM Flex HD stands for innovative flexible endoscopes based on our established camera platform **ENDOCAM Logic HD** and which can be applied in various medical disciplines.



ENDOLIGHT Flex LED

ENDOLIGHT Flex LED expands the application of the **ENDOCAM Flex HD** to endoscopes with conventional optical systems.

ENDOLIGHT Flex LED features modern, low maintenance LED technology and simple operation with a high light output comparable to a 180 W xenon light source.

With use of the camera head for **ENDOCAM Flex HD**, many applications in rigid endoscopy are also possible, also with third-party and with analog flexible endoscopes.



@Urology

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ENDOCAM Flex HD @Urology

Ureterorenoscopy

The number of flexible ureterorenoscopies is steadily increasing. **BOA vision EF** and **COBRA vision EF** cover the entire application spectrum of these procedures.

The small outer diameter of the **BOA vision EF** makes it ideal for many urological applications. **COBRA vision EF**, currently the only flexible dual-channel sensor URS on the market, is recommended for stone therapy. Both endoscopes offer a complete clinical package satisfying the desires of urologists with the optimal technical performance.



The **single chip HD camera head with zoom coupler** combined with the ENDOLIGHT Flex LED offers, for example, the ability to place a guidewire via rigid cystoscopy.



An **angled coupler** is optionally available for resection.



BOA VISION EF

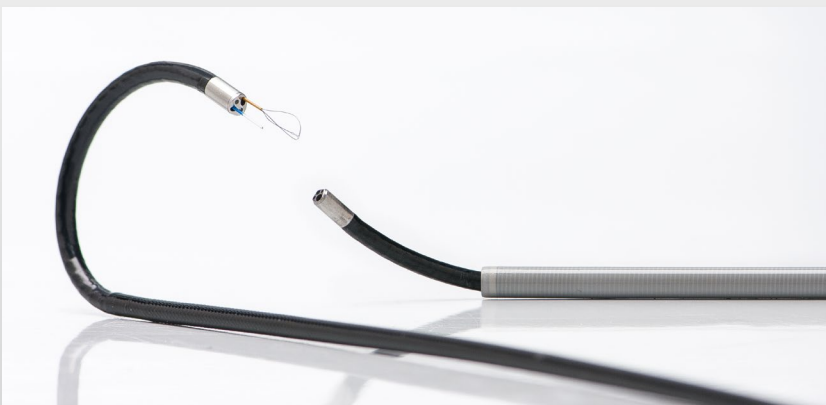
Flexible Single Channel Sensor Ureterorenoscope

- Fits through 9.5 Fr. access sheaths
- Large 3.6 Fr. working and irrigation channel
- 270° deflection upward/downward
- Integrated LED illumination and distal image sensor
- High shaft stiffness

COBRA VISION EF

Flexible dual channel Sensor Ureterorenoscope

- Two channels for the simultaneous use of stone baskets and laser fibers
- Large 3.6 Fr. working and irrigation channel
- Laser channel for fibers up to 365 µm
- 270° deflection upward/downward
- Integrated LED illumination and distal image sensor
- High shaft stiffness



With **ENDOCAM Flex HD**, two unique flexible endoscopes are available for use in the upper urinary tract.

ENDOCAM Flex HD @Urology

The new flexible **vision EF cystoscope** for the ENDOCAM Flex HD platform combines an extremely thin and highly flexible outer sheath for patient comfort with a brilliant picture and homogenous illumination thanks to two powerful distally integrated LEDs.

Ease of use and time-savings remain possible with a generous distal tip deflection of 220° in each direction and high irrigation flow through the 7.5 Fr. working channel, along with Plug and Play operation.

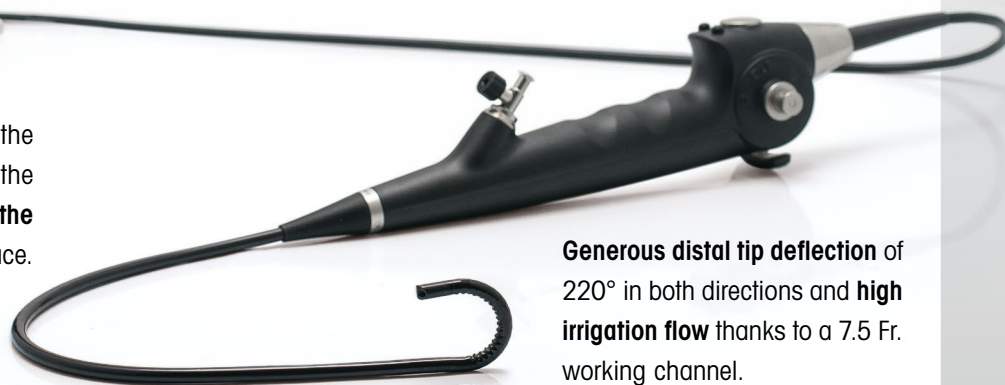
Cystoscopy



Excellent image quality and illumination through two distally integrated LEDs.



Made-to-fit brackets allow the space-saving mounting of the camera and light-source **behind the monitor** with a VESA 100 interface. (See page 11)



Generous distal tip deflection of 220° in both directions and **high irrigation flow** thanks to a 7.5 Fr. working channel.

		BOA vision EF flexible Sensor URS	COBRA vision EF flexible Sensor URS	vision EF flexible Sensor Cystoscope
Number of working channels		1	2	1
Sheath ø		8.7 Fr.	9.9 Fr.	16.2 Fr.
Distal tip		ø 6.6 Fr. atraumatic stainless steel tip	ø 5.2 Fr. atraumatic stainless steel tip	ø 11.5 Fr. atraumatic plastic tip
Working/irrigation channel ø		3.6 Fr.	3.6 Fr.	7.5 Fr.
Laser channel ø		–	2.4 Fr.	–
Angulation		270° upward, 270° downward	270° upward, 270° downward	220° upward, 220° downward
Working length		680 mm	680 mm	400 mm
Viewing angle		90°	90°	110°
Lighting		LED integrated to handle	LED integrated to handle	two distally integrated LEDs
Handle		ergonomically contoured handle with axial camera cable	ergonomically contoured handle with brake for locking the instru- ment tip and axial camera cable	ergonomically contoured handle with axial camera cable
Positioning of the working and irrigation channel to the image		at 9 o'clock	at 6 o'clock	at 3 o'clock
Positioning of the laser and irrigation channel to the image		–	at 9 o'clock	–
Endoimage		square, 1.5 x zoom, detail enhancement, automatic white-balance and light control, no focusing necessary	square, 1.5 x zoom, detail enhancement, automatic white-balance and light control, no focusing necessary	octagon, detail enhancement, automatic white-balance and light control, no focusing necessary
Cable length		2.5 m	2.5 m	2.5 m
Compatible endocamera		ENDOCAM Flex HD	ENDOCAM Flex HD	ENDOCAM Flex HD
Included accessories		Leak tester (163.903), pressure equalization valve (163.904), disposable cleaning brush (pack of 10) for working channel (7990001), irrigation set V (163910)	Leak tester (163.903), pressure equalization valve (163.904), dis- posable cleaning brush (pack of 10) for working channel (7990001), dis- posable cleaning brush (pack of 10) for laser channel (7990003), clam- ping element (pack of 20), orange (15394144), adapter (163914), 2 x irrigation set V (163910)	Leak tester (163.903), pressure equalization valve (163.904), disposable cleaning brush (pack of 100), for working channel (7990004), Luer sealing cap (15023205), irrigation set V (163910)
Endoscope: Control lever distal – deflectionup	735510761 (incl. Endoscope 73551076)	735610761 (incl. Endoscope 73561076)	731510061 (incl. Endoscope 73151006)
	...down	735510711 (incl. Endoscope 73551071)	735610711 (incl. Endoscope 73561071)	731510011 (incl. Endoscope 73151001)

ENDOCAM Flex HD

@Pulmonology / Critical Care Medicine

Pulmonology

For pulmonology, the **ENDOCAM Flex HD** concept offers a complete, however space-saving, cost-efficient package for diagnostic and therapeutic procedures.

The new flexible endoscopes deliver a first-class image of the airways via an innovative image sensor and distally integrated LEDs. A handle designed with ergonomics in mind allows tireless handling over long periods of time.

From routine procedures, such as endotracheal or bronchial biopsies with the diagnostic bronchoscope to complex interventional procedures with the therapeutic model, Richard Wolf meets the needs of today's pulmonologist with this revolutionary new system.



At half the size of traditional endoscopic units in width and height, the ENDOCAM Flex HD and ENDOLIGHT Flex LED can be placed in areas with limited space.



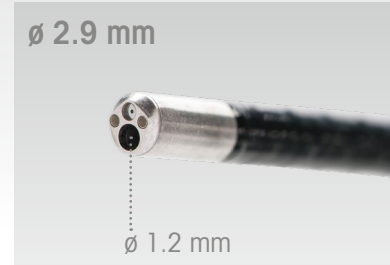
**Flexible Sensor Bronchoscope
"diagnostic model"**

For the daily routine – for biopsy sampling or introduction and placement of endotracheal tubes.



**Flexible Sensor Bronchoscope
"therapeutic model"**

Excellent outer to working channel diameter ratio for interventional procedures and suction of thick secretion



**Flexible Sensor Bronchoscope
"Slim line model"**

Small lumen endoscope for examination of peripheral pathologies or for use in smaller anatomy



Every second counts during treatment of a patient in critical care medicine. With the compact and **portable design** of the ENDOCAM Flex HD system from Richard Wolf, **quick access to the patient** is possible and easy. The brilliant image, thanks to the innovative distal sensor and powerful LEDs in the flexible endoscopes, assist in fast, safe stabilization of the patient in critical care situations.

Critical Care Medicine

Technical Data

Flexible Sensor Bronchoscopes

	Flexible Sensor Bronchoscope "diagnostic model"	Flexible Sensor Bronchoscope "therapeutic model"	Flexible Sensor Bronchoscope "Slim line model"
Sheath ø	5.2 mm	6.2 mm	2.9 mm
Distal tip	ø 5.2 mm atraumatic plastic tip	ø 6.2 mm atraumatic plastic tip	ø 2.2 mm atraumatic stainless steel tip
Working channel ø	2.2 mm	3.0 mm	1.2 mm
Angulation	180° upward, 140° downward	180° upward, 140° downward	270° upward, 270° downward
Working length	600 mm	600 mm	680 mm
Viewing angle	110°	110°	90°
Lighting	two distally integrated LEDs	two distally integrated LEDs	LED integrated to handle
Handle	ergonomically contoured handle with axial camera cable	ergonomically contoured handle with axial camera cable	ergonomically contoured handle with axial camera cable
Positioning of the working and irrigation channel to the image	at 3 o'clock	at 3 o'clock	at 9 o'clock
Endoimage	octagon, automatic white-balance and light control, no focusing necessary	octagon, automatic white-balance and light control, no focusing necessary	square, 1.5 x zoom, detail enhancement, automatic white-balance and light control, no focusing necessary
Cable length	2.5 m	2.5 m	2.5 m
Compatible endocamera	ENDOCAM Flex HD	ENDOCAM Flex HD	ENDOCAM Flex HD
Included accessories	Biopsy valve (pack of 100), un-sterile, for single use (4565851), suction valve (pack of 20), sterile, for single use (4565901), biopsy forceps (pack of 10), sterile, with smooth double spoon, coated sheath, for single use (4564611), leak tester (163903), pressure equalization valve (163904), rinsing adapter for automatic cleaning (163912), cleaning brush for suction channel (7268691), disposable cleaning brush (pack of 10) (7990002), protection ring (8199.00)	Biopsy valve (pack of 100), un-sterile, for single use (4565851), suction valve (pack of 20), sterile, for single use (4565901), biopsy forceps (pack of 10), sterile, with smooth double spoon, coated sheath, for single use (4564711), leak tester (163903), pressure equalization valve (163904), rinsing adapter for automatic cleaning (163912), cleaning brush for suction channel (7268691), disposable cleaning brush (pack of 100) (7990004), protection ring (8199.00)	Biopsy valve (pack of 100), un-sterile, for single use (4565851), suction valve (pack of 20), sterile, for single use (4565901), biopsy forceps 3 Fr. , flexible, WL 920 mm (829.601), leak tester (163903), pressure equalization valve (163904), rinsing adapter for automatic cleaning (163912), cleaning brush for suction channel (7268691), disposable cleaning brush (pack of 10), for working channel (7990001), protection ring (8199.00)
	725001 (incl. Endoscope 7250011)	726001 (incl. Endoscope 7260011)	723601 (incl. Endoscope 7236011)

and Accessories

ENDOCAM Flex HD Controller Set

Outputs: 1 x HDMI, 1 x USB 3.0, Resolution: 1920 x 1080 pixel, VESA 100 interface, 100–240 V a.c., 50/60 Hz, dimensions (W x H x D): 150 x 55 x 220 mm. Comprising: ENDOCAM Flex HD Controller (5521101), HDMI/DVI-D cable (103843) and power cable (244003) **5521101**



Light source

ENDOLIGHT Flex LED

High Power LED, LED service life >30,000h, color temperature approx. 6,500 K, continuously variable electronic light quantity control, VESA 100 interface, 100–240 V a.c., 50/60Hz, Dimensions (W x H x D): 150 x 55 x 220 mm. Comprising: ENDOLIGHT Flex LED (5166001) and power cable (244003) .. **5166001**

Mounting solutions

VESA 100 Console

Console for one or two devices of the "Flex" series, installation between VESA 100 mount and VESA 100 monitor,
for one device **5370401**
for two devices,
 with holder for camera head and light cable **5370402**

VESA 100 mount

for mounting one device of "Flex" series to the side of RIWomobil or to other vertical mounting surfaces **32116452**

Camera head

1-Chip HD Camera head for ENDOCAM Flex HD

C-Mount, 1 x 1/3 inch high-resolution image sensor, 2 camera head buttons, angled cable connection, cable length: 2.5 m **5521902**

Lenses

RIWO-Zoom-Lens

f = 13 – 29 mm **5261504**

RIWO-Angular-Lens

f = 17 mm **5257171**



ENDOCAM Flex HD

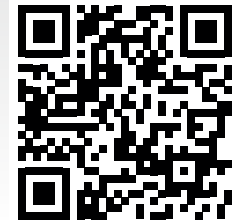


spirit of excellence

**Yes, I would like to request
an ENDOCAM Flex HD Evaluation Set at no charge***



**by Fax: +49 7043-35 4388
or online at
endocamflexhd.richard-wolf.com**



Please complete all fields in the form below to request your personal **ENDOCAM Flex HD Evaluation Set**.

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First name:

Name:

Function:

Hospital/Practice:

Department:

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Postcode/Town:

Country:

Phone:

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Yes, I'd like to receive information about product innovations, promotions and workshops by newsletter from Richard Wolf.

Place / Date

Signature / Stamp

* Charges may apply for consumables

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