

Simply visionary.

BOA  
VISION

COBRA  
VISION

MAMBA  
VISION



## Flexible Sensor Endoscopes

for ENDOCAM® Logic 4K



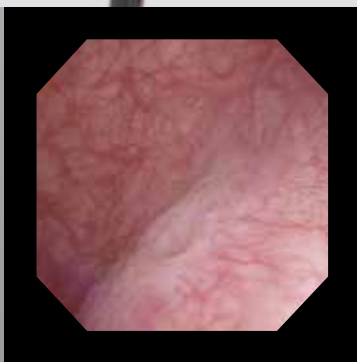
## Flexible Sensor Cystoscope

Ultimate flexibility meets sensor technology.

Introducing Richard Wolf's newest flexible sensor endoscope for the ENDOCAM Logic 4K camera system. The **MAMBA vision** offers 210° bidirectional deflection, allowing the surgeon to easily visualize and navigate the bladder.

Featuring a slim outer sheath, 11.5 Fr. atraumatic distal tip, and a large 7.5 Fr. working channel, the **MAMBA vision** provides enhanced patient comfort without sacrificing irrigation. Its cutting-edge sensor technology generates a brilliant image and its lightweight, ergonomic handle helps ensure ease of use throughout a procedure.

# Cystoscopy



Sensor Cystoscope Picture



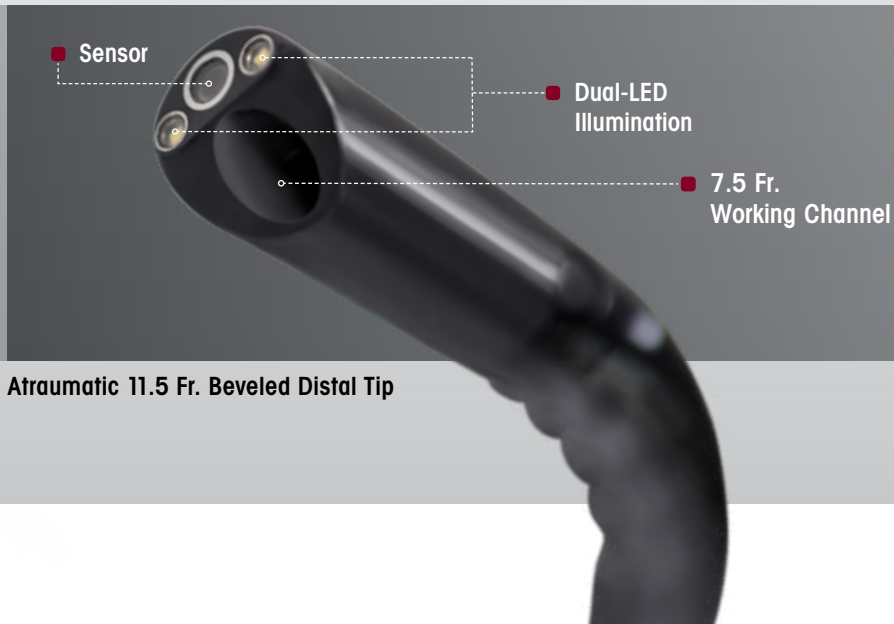
210° Bidirectional Deflection



# mamba VISION

## Flexible Sensor Cystoscope

- 210° bidirectional deflection for precise control and navigation.
- Large 7.5 Fr. working channel for optimal irrigation.
- Atraumatic 11.5 Fr. beveled distal tip for easy insertion and enhanced patient comfort.
- 16.2 Fr. sheath.
- Two distally-integrated LEDs for superior illumination.
- Two programmable camera buttons.
- Special Imaging Modes (SIM).
- Ergonomic handle and axial cable.



**Atraumatic 11.5 Fr. Beveled Distal Tip**



# Single-Channel Flexible Sensor Ureteroscope

The multifaceted instrument for all-around application.

## Ureteroscopy

Engineered with Richard Wolf's latest sensor technology, the **BOA vision** produces a crisp, clear image of the upper and lower urinary tract. Its stiff shaft, slim 6.6 Fr. distal tip, and 270° bidirectional deflection make this flexible ureteroscope ideal for complex anatomy.

Featuring a 3.6 Fr. working channel, the **BOA vision** can be inserted through an access sheath as small as 9.5 Fr.



Sensor Ureteroscopy Picture



9.5 Fr.

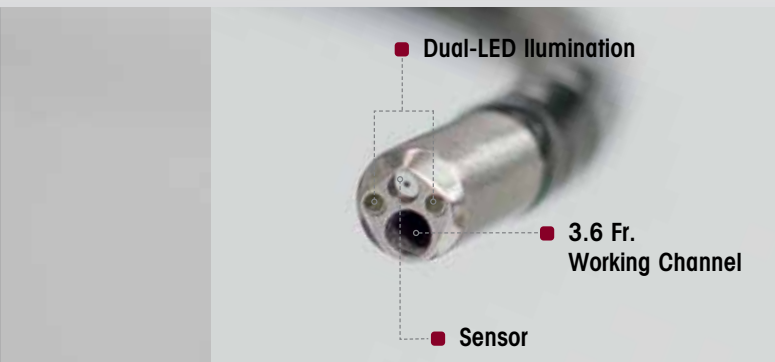
Compatible with a 9.5 Fr. Access Sheath



**Boa**  
VISION

**Single-Channel Flexible  
Sensor Ureteroscope**

- Compatible with a 9.5 Fr. access sheath.
- 270° bidirectional deflection.
- 3.6 Fr. working channel.
- Atraumatic 6.6 Fr. beveled distal tip for easy insertion.
- 8.7 Fr. sheath.
- Integrated LED illumination and distal image sensor.
- Two programmable camera buttons.
- Special Imaging Modes (SIM).
- Ergonomic handle and axial cable.



**Atraumatic 6.6 Fr. Beveled Distal Tip**



**270° Bidirectional Deflection**



# Dual-Channel Flexible Sensor Ureteroscope

Optimizing stone therapy.

As the first and only dual-channel sensor ureteroscope on the market, the **COBRA vision** is changing the landscape of stone therapy.

Two independent working channels allow the surgeon to perform laser lithotripsy and extraction without having to interrupt a procedure to change auxiliary instruments.

The **COBRA vision** also has a unique laser shifter, which can be used to precisely position and fix a laser fiber during a stone procedure.

## Ureteroscopy



Sensor Ureteroscope Picture



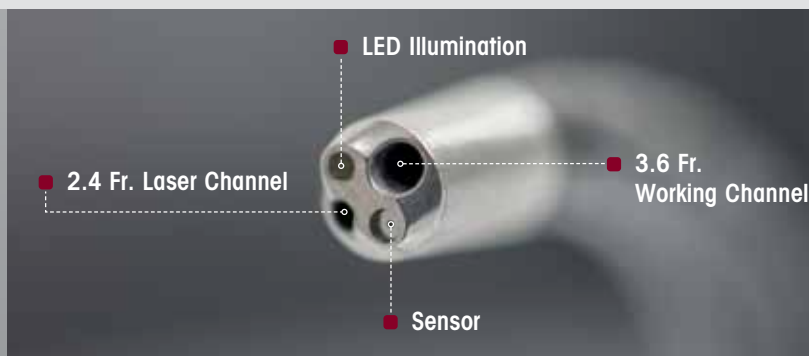
Two Independent Channels



## COBRA VISION

### Dual-Channel Flexible Sensor Ureteroscope

- 270° bidirectional deflection.
- Two independent channels (3.6 Fr. and 2.4 Fr.) for the simultaneous use of tipless baskets and laser fibers.
- Atraumatic 5.2 Fr. beveled distal tip for easy insertion.
- 9.9 Fr. sheath.
- Integrated LED illumination and distal image sensor.
- Two programmable camera buttons.
- Special Imaging Modes (SIM).
- Ergonomic handle and axial cable.



Atraumatic 5.2 Fr. Beveled Distal Tip

# ENDOCAM Logic 4K

The new definition of sharp.

The ENDOCAM Logic 4K camera system—the newest addition to the ENDOCAM Logic line—brings the clarity and brilliant detail of 4K to the operating room.

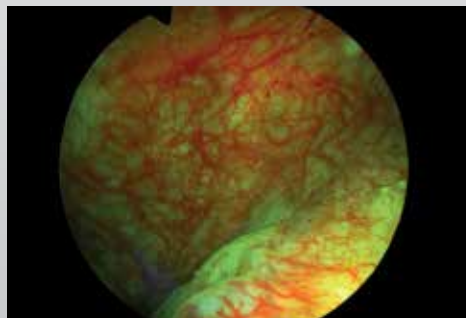
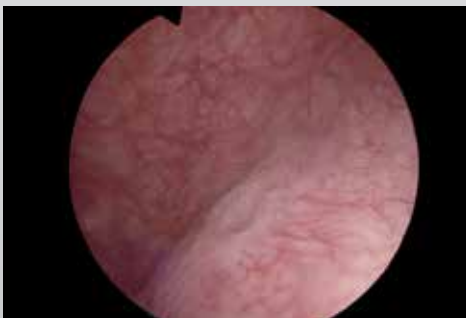
The ENDOCAM Logic 4K is a true plug-and-play system, allowing the user to plug any Richard Wolf flexible sensor endoscope directly into the camera control unit.

The built-in touch screen offers intuitive control, as well as the ability to make quick setting changes and create custom user profiles.



ENDOCAM Logic 4K  
Camera Control Unit

**COLOR CONTRAST I-III:** Enhances contrast and reproduces select colors.



**CONTRAST I - II:** Enhances anatomical structures without altering their natural color.







## ENDOCAM Logic 4K

- **Sustainable Technology**

The camera control unit's USB port enables in-field software updates, ensuring the system is always in sync with our latest video technologies.
- **Equipment Versatility**

The ENDOCAM Logic 4K is compatible with all Richard Wolf vision sensor endoscopes. This turnkey system also gives facilities the flexibility to upgrade their ENDOCAM Logic HD system incrementally.
- **User-Friendly Interface**

The camera control unit's built-in touch screen provides ease-of-use and intelligent menu navigation.
- **Tailored Visualization**

The ENDOCAM Logic 4K is equipped with several preset surgical profiles that have been field-tested to deliver vivid images for various endoscopic procedures, including cystoscopy, ureteroscopy, and resection.

### Special Imaging Modes: The Difference is in the Detail

Richard Wolf's vision family of sensor endoscopes allow the user to select, at the touch of a button, one of several SIM modes, each designed to help facilitate easier tissue differentiation.

# Modes

**High Dynamic Range (HDR):** Lightens dark areas and reduces overexposure.



# Flexible Sensor Endoscopes

## Technical Specifications

	<b>MAMBA vision</b> Flexible Sensor Cystoscope	<b>BOA vision</b> Single-Channel Flexible Sensor Ureteroscope	<b>COBRA vision</b> Dual-Channel Flexible Sensor Ureteroscope
Number of working channels	1	1	2
Sheath	16.2 Fr.	8.7 Fr.	9.9 Fr.
Distal tip	11.5 Fr. atraumatic, plastic	6.6 Fr. atraumatic, stainless steel	5.2 Fr. atraumatic, stainless steel
Working/irrigation channel	7.5 Fr.	3.6 Fr.	3.6 Fr.
Laser/irrigation channel	–	–	2.4 Fr.
Deflection	210° bidirectional	270° bidirectional	270° bidirectional
Working length	400 mm	680 mm	680 mm
Angle of view	110°	90°	90°
Lighting	Two distally-integrated LEDs	LED integrated into handle	LED integrated into handle
Handle	Ergonomic handle with axial camera cable	Ergonomic handle with axial camera cable	Ergonomic handle with brake (for locking the instrument tip) and axial camera cable
Position of working/irrigation channel in endoscopic image	3 o'clock	9 o'clock	6 o'clock
Position of laser/irrigation channel in endoscopic image	–	–	9 o'clock
Endoscopic image	Octagon, 3-step detail enhancement and 6-fold digital zoom, automatic white balance, light control, and focus	Square, 6-fold digital zoom, automatic white balance, light control, and focus	Square, 6-fold digital zoom, automatic white balance, light control, and focus
Compatible camera systems	ENDOCAM Logic HD ENDOCAM Logic HD <i>lite</i> ENDOCAM Logic 4K	ENDOCAM Logic HD ENDOCAM Logic HD <i>lite</i> ENDOCAM Logic 4K	ENDOCAM Logic HD ENDOCAM Logic HD <i>lite</i> ENDOCAM Logic 4K

## Ordering Information

	<b>MAMBA vision</b>	<b>BOA vision</b>	<b>COBRA vision</b>
<b>Logical Deflection</b> (control lever down, distal tip down)	<b>MAMBA vision Bundle ..... 73150011US</b> <i>Includes:</i> MAMBA vision flexible sensor cystoscope (7315001US)	<b>BOA vision Bundle ..... 73550711</b> <i>Includes:</i> BOA vision single-channel flexible sensor ureteroscope (7355071)	<b>COBRA vision Bundle ..... 73560711</b> <i>Includes:</i> COBRA vision dual-channel flexible sensor ureteroscope (7356071)
<b>Ergonomic Deflection</b> (control lever down, distal tip up)	<b>MAMBA vision Bundle ..... 73150061US</b> <i>Includes:</i> MAMBA vision flexible sensor cystoscope (7315006US)	<b>BOA vision Bundle ..... 73550761</b> <i>Includes:</i> BOA vision single-channel flexible sensor ureteroscope (7355076)	<b>COBRA vision Bundle ..... 73560761</b> <i>Includes:</i> COBRA vision dual-channel flexible sensor ureteroscope (7356076)
	<i>Included with each bundle:</i> 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)	<i>Included with each bundle:</i> Leak tester (163.903) Pressure equalization valve (163.904) Disposable cleaning brush (pack of 10) for working channel (7990001) Irrigation set V (163910)	<i>Included with each bundle:</i> Leak tester (163.903) Pressure equalization valve (163.904) Disposable cleaning brush (pack of 10) for working channel (7990001) Disposable cleaning brush (pack of 10) for laser channel (7990003) Clamping element (pack of 20), orange (15394144) Adapter (163914) 2 x irrigation set V (163910)

**ENDOCAM Logic 4K Bundle ..... 552530115**

*Includes:*

ENDOCAM Logic 4K camera control unit (5525301), remote control (5525401), power cable (N710171), 8 GB USB stick (56540028), HDMI-HDMI cable (103847)



spirit of excellence

Specifications subject to change without notice.

2100-02-02-0321USA