

The new definition
of sharp.

4K

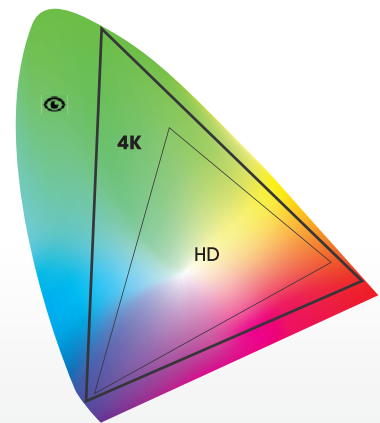
ENDOCAM[®] Logic 4K
Camera System

ENDOCAM® Logic 4K


The new definition of sharp.

With four times the resolution of HD and the capability to reproduce more than one billion distinct colors, 4K technology is the future of endoscopic imaging. Fine details are sharper. Spatial depth is magnified. Colors are truer.

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.



More Colors than HD

-  - Colors perceivable by the human eye
- 4K** - Reproduces 1+ billion colors
- HD** - Reproduces 16+ million colors





End-to-End 4K

From endoscope to monitor, and everything in between, the **ENDOCAM Logic 4K** camera system achieves a continuous 4K imaging chain. Each component plays a critical role in the generation or reproduction of a true 4K image:

- **PANOVIEW ULTRA Telescope**
- **Distortion-Free Objective Lens**
- **ENDOCAM® Logic 4K Camera Head**
- **ENDOCAM® Logic 4K Camera Controller**
- **ENDOLIGHT LED 2.2 Light Source**
- *fusion* Light Cable
- **4K UHD Monitor**

The new definition of sharp.
The new definition of sharp.

ENDOCAM
Logic
4K

ENDOCAM® Logic 4K

The future is logic.

Built on the ENDOCAM Logic HD platform, **ENDOCAM Logic 4K** combines the versatility and user-friendly features of Richard Wolf's previous-generation system with the stunning detail of 4K.

- **4K UHD Resolution**

3840 x 2160 pixels.

- **Equipment Versatility**

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

- **Integrated Recording System**

Allows user to store HD images and video on a USB stick.

- **User-Friendly Interface**

Built-in touchscreen enables quick setting changes.

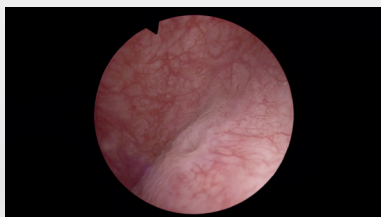
- **core-Capable**

Compatible with **core nova**, Richard Wolf's network-based integrated OR system.

Special Imaging Modes

The difference is in the detail.

The **ENDOCAM Logic 4K** camera controller is equipped with several Special Imaging Modes (SIM), each designed for improved tissue differentiation. To help save valuable OR time, SIM can easily be switched on and off using one of the programmable camera head buttons.



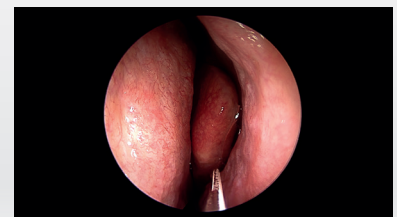
COLOR CONTRAST I-III

Enhances contrast and reproduces select colors.



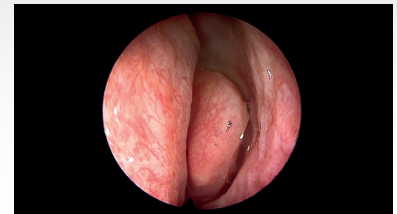
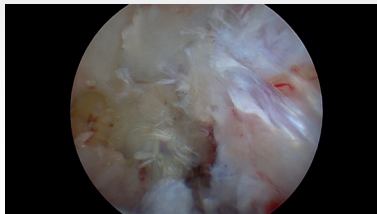
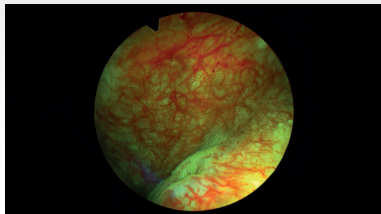
CONTRAST I - II

Enhances anatomical structures without altering their natural color.



High Dynamic Range (HDR)

Lightens dark areas and reduces overexposure.



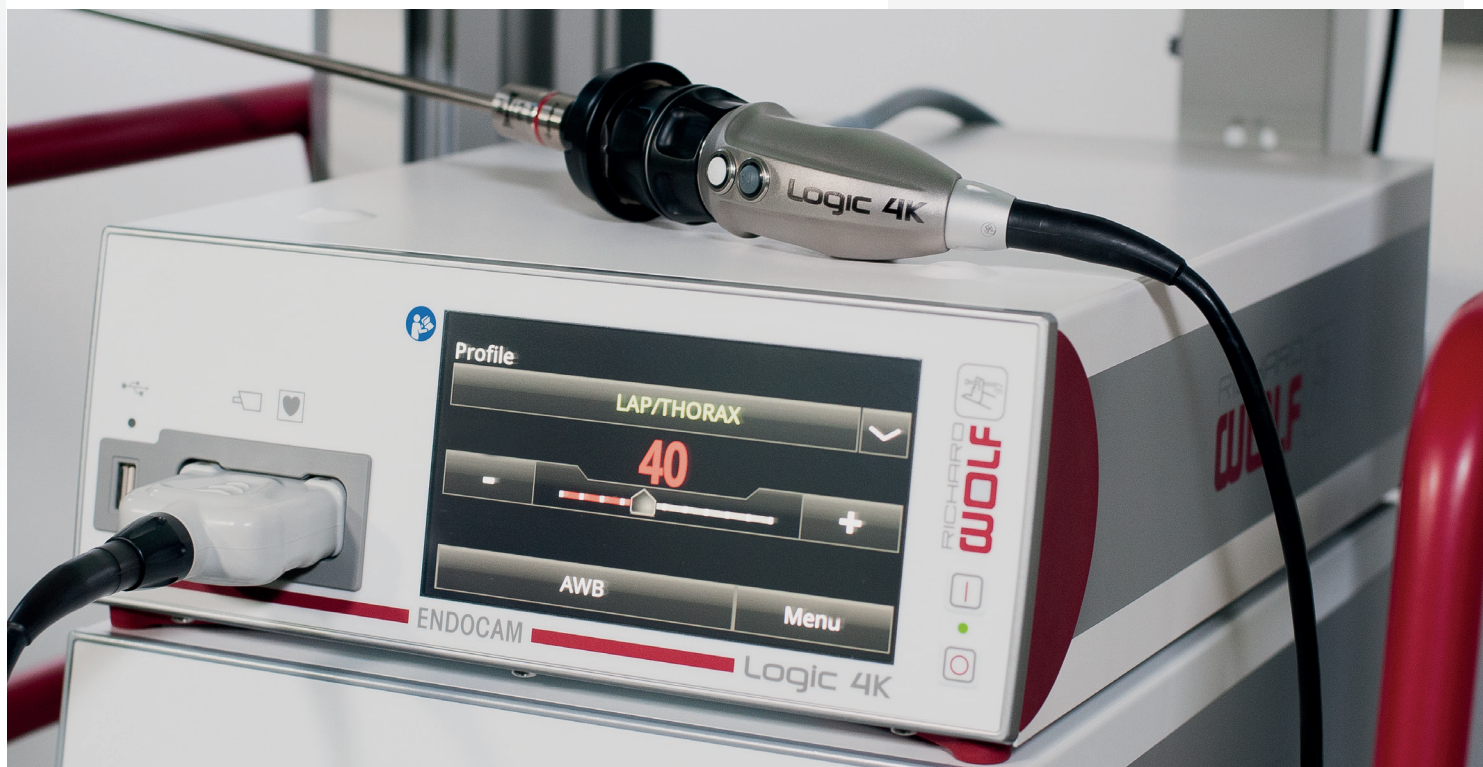
True 4K Image Generation

The **ENDOCAM Logic 4K** camera head produces a 4K UHD image, which allows data to be directly processed without upscaling. Designed with surgeons top of mind, its lightweight, ergonomic design helps reduce hand fatigue during a procedure.

- Three CMOS image sensors
- Universal c-mount threading
- Two programmable camera head buttons capable of controlling up to four functions
- Autoclavable

*For more information pertaining to sterilization, please reference IFU BB-A282-05.

ENDOCAM Logic 4K



PANOVIEW ULTRA

Bright. Clear. True.

A true 4K image starts with a 4K-optimized endoscope. With the latest generation of high definition optics and an innovative lens system, Richard Wolf's 5.5 mm PANOVIEW ULTRA telescopes are engineered for 4K visualization and the increased illumination it requires. This line delivers a stunning level of brightness and clarity.



PANOVIEW
ULTRA

Bright. Clear. True.

A New Generation of Ultra High Resolution Telescopes

- **Superior Fiber Optics**
Generate brilliant natural color rendition.
- **Low-Dispersion Glass Rod Lenses**
Provide improved peripheral sharpness and a balanced sharpness gradient.
- **Increased Light Fibers**
Deliver more light to the surgical site than traditional fiber optic technologies.
- **Steam Sterilizable**



SONY 4K Monitors

4K resolution at its finest.



spirit of excellence



Brilliant OR Visualization

Our 4K monitors bring the stunning color and detail of 4K to life. Easy to use, easy to maintain, and synchronized to the ENDOCAM Logic 4K camera system, Richard Wolf's line of 4K monitors is ready to meet the visualization needs of any OR.

- **4K UHD Resolution**
- **Richard Wolf Presets**
Optimized for the ENDOCAM Logic 4K camera system.
- **Multiple Display Modes**
PIP, POP, and quad view.
- **OptiContrast Panel™**
Reduces glare and reflection.
- **Multiple Screen Sizes**
Available in 31" and 55".

ENDOLIGHT LED_{2.2}

Light source technology, perfected.

4K imaging requires more illumination at the surgical site. The solution? Richard Wolf's energy-efficient ENDOLIGHT LED 2.2 light source. With light output equivalent to a 300 watt xenon light source, the high-power ENDOLIGHT LED 2.2 is an ideal system for various procedures.

Featuring LED technology, the **ENDOLIGHT LED 2.2** delivers consistent, homogenous illumination regardless of operating hours; over the lifespan of the LED lamp, there is no decrease in brightness at the center or edges of the endoscopic image.

- **LED Technology**

Provides homogenous, harmonized illumination.

- **Environmentally-Friendly**

Uses 80% less electricity than xenon technology.¹

- **Cost-Efficient**

Each LED bulb offers approximately 30,000 hours of illumination.

¹Source: Laboratory Measurements, Richard Wolf Medical Instruments Corporation



Devices in *dialog*

Featuring Richard Wolf's cutting-edge ***dialog*** technology, the **ENDOCAM Logic 4K** camera controller is able to communicate directly with the **ENDOLIGHT LED 2.2** light source, automatically adjusting light intensity in real-time to ensure an ideal level of illumination.

- ***dialog.status***

Displays light source status on the monitor.

- ***dialog.brightness***

Automatically adjusts light output based on an endoscope's proximity to tissue.

- ***dialog.light balance***

Enables a constant color reproduction through the complete brightness range of the LED.

fusion

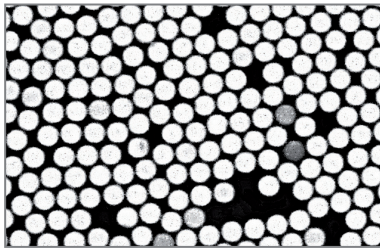


spirit of excellence

Quality in every fiber.

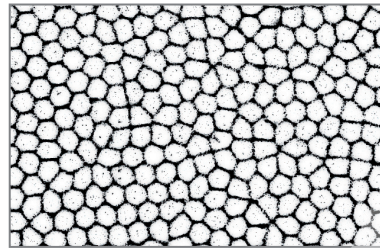
Richard Wolf's fusion light cables are a perfect complement to the **ENDOCAM Logic 4K** camera system and the **ENDOLIGHT LED 2.2** light source. Engineered with fused-glass technology, which eliminates space between individual light fibers, fusion light cables transmit approximately 20% more light than standard cables.² They are also temperature-resistant, highly durable, and designed with a secure snap-on connector.

²Source: Laboratory Measurements, Richard Wolf Medical Instruments Corporation



Standard Light Cable

Adhesive filler reduces light output.



Fusion Light Cable

Temperature-resistant construction with reduced filler enhances light transmission.



fusion

ENDOCAM® Logic 4K

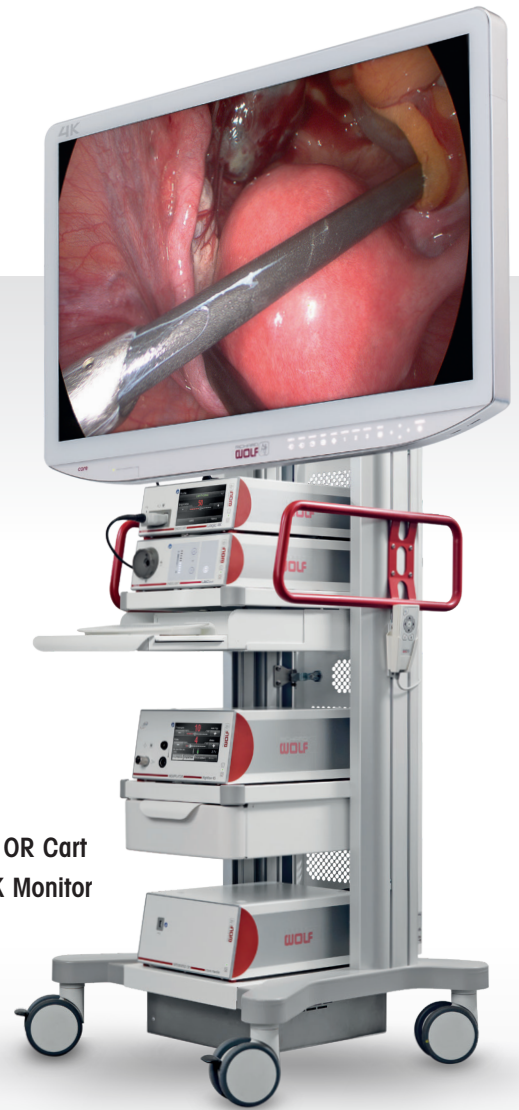
The flexibility of mobile or fixed installation.

RIWomobil OR Cart

RIWomobil is an intelligent solution for today's busy OR. Our OR cart offers a small footprint and sleek design without sacrificing stability or the carrying capacity of a standard cart.

- Two Dual-Lock Casters
- Two CO₂ Tank Holders
- Adjustable Shelving
- Lockable Storage Drawer

RIWomobil OR Cart
with 55" 4K Monitor



corenova

The fully network-based integrated OR.

The ENDOCAM Logic 4K camera system is compatible with Richard Wolf's **core nova** OR integration system — a multifunctional platform designed to optimize workflows and clinical processes. With its small footprint and seamless scalability, **core nova** is an excellent way for facilities to enter the integrated OR space.

For more information about **core nova**, please contact your local Richard Wolf sales representative or call (800) 323-WOLF.



ENDOCAM® Logic 4K

Ordering Information

Camera Controller

ENDOCAM Logic 4K Camera Controller..... 5525301

Camera Head

ENDOCAM Logic 4K Camera Head

3-Chip, CMOS 85525942

Objective Lenses

RIWO Lens, C-Mount

14 mm 85261144

24 mm 85261244

RIWO Zoom Lens, C-Mount

13-29 mm 85261504

Telescopes

PANOVIEW ULTRA Telescope, 5.5 mm

WL 300 mm

0° 8935461

30° 8935462

WL 430 mm

0° 89354416

30° 89354426

Monitors

4K LCD Monitor

31" LMD-X310MD

55" Richard Wolf-Branded LMD-X550NB

Light Source

ENDOLIGHT LED 2.2 Bundle

Includes:

ENDOLIGHT LED 2.2 (5164001), Patch Cable, RJ45

SFTP, 0.5 M (72325378), and Power Cable (N710171),

100-240 V~, 50/60 Hz 51640011

Light cable

Fusion Fiber Light Cable Bundle, 5.0 mm

Includes:

Adapter for Richard Wolf Light Source (8095.07),

Adapter for Richard Wolf Endoscope (809509)

and Fusion Fiber Light Cable (80655030),

3 M 806550301

OR Cart

RIWomobil 321160135

