



*progress in surgery*

# K4000 Laparoscopy 4K 3 CHIP UHD CAMERA

# 4K



# DEVICES

## 4K 3 CHIP UHD-CAMERA K4000

For the first time surgeons can trust an accurate laparoscopic 2D picture during the surgery.

Especially during laparoscopic procedures where large cavities need to be shown correctly, our new K4000 camera gives precise details.

Our Ultra-High-Definition 4K complements and supports the human eye (retina) by currently best imaging technique.

The new K4000 camera shows in particular deep located operating areas, tissue deformations by giving a correct perspective.

This systems improves the learning curve of surgeons and reduces the OR-time tremendously.

### Features:

- K4000 offers excellent details
- natural color-correct images with greater depth perception so the OR team can see more details during procedures and use for the first time a digital zoom in real practice
- simple application of the UHD K4000 4K camera and less complicated as 3D technology
- faster operating time
- less expensive as a complete 3D System as some standard products i.e. telescopes, can be used

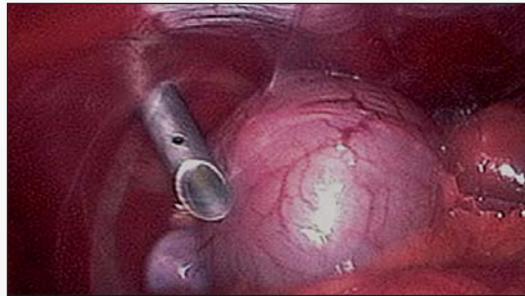
# 4K



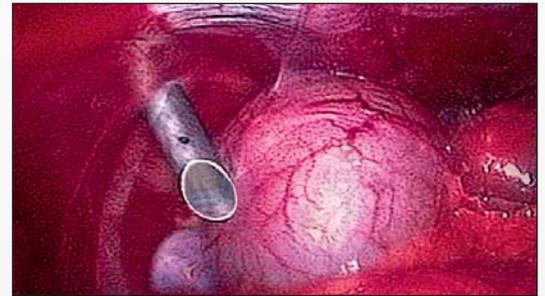
300-001-840

4K 3 Chip UHD-Camera K4000

## 3 CHIP 4K UHD IMAGING

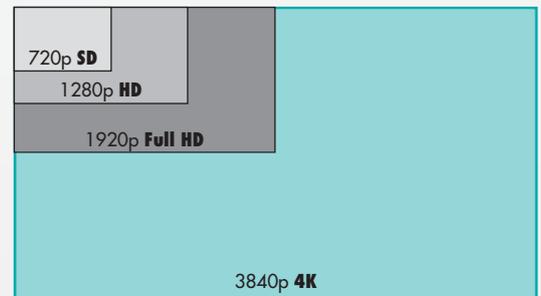


Standard Full HD Image



Improved UHD 4K Image

- Significant more detail and structure enhancement
- Color and brightness improvement
- 4 times higher resolution



### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Consumption	60 VA
Sensor	3 MOS
TV resolution	3840 x 2160 pixels (4K)
Image resolution	1600 TV lines
Index ratio	16:9
S/N Ratio	54dB
Video outputs:	1x HDMI 4K 1 x HDMI Full HD 1x SDI 4K 1x SDI Full HD
Dimensions	Control unit: 355 x 103 x 350 mm (WxHxD); Weight 6.2 kg
Camera Head	145g

### Delivery Contains:

- Main Unit (300-001-840) • Camera head (300-001-841)
- HDMI cable • USB Pen Drive • Mains cable
- Operating manual

UHD CAMERA HEAD

# MULTIFUNCTIONAL HIGH-END CAMERA HEAD



- Ergonomic, raised push buttons
- 4 freely programmable buttons



- Weight-reduced
- Soakable, STERRAD® 100S
- Cable length: 3m

## TV-ADAPTERS

All RZ TV-Adapters with c-mount, soakable



FIXED FOCAL LENGTH

300-001-813          f=14mm

300-001-814          f=25mm

300-001-815          f=28mm

with manual lock



ZOOM FUNCTION

250-015-036

Zoom

f=15 - 36mm

## SETUP



300-001-841  
(Included)



USB pen drive  
(Included)



300-001-610  
(Optional)



300-001-616  
(Optional)



300-900-300  
LUMEN LED 3



300-010-455

4K Medical Grade  
Monitors (optional)



300-010-432

## OPTIONAL ACCESSORIES



300-001-610  
Footswitch  
cable length: 2m



300-001-616  
Title generator keyboard, waterproof IP68  
US-Layout, USB connector, cable 1.8m  
Color: grey, 305x140x15mm, 600gr.

## UHD MEDICAL GRADE MONITORS



Article No.	300-010-455
Size	55" / 49 <sup>7</sup> / <sub>8</sub> x 30 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>8</sub> inches (1264 x 771 x 85mm)
Resolution	3840 x 2160 pixels (16:9)
Signal Input	SD-SDI, HDMI, DVI
Panel	LCD with IPS
Weight	35,2 kg



Article No.	300-010-432
Size	31" / 29 <sup>3</sup> / <sub>4</sub> x 18 x 2 <sup>3</sup> / <sub>4</sub> inches (753 x 456 x 69mm)
Resolution	4096 x 2160 pixels (17:9)
Signal Input	SD-SDI, HDMI, DVI
Panel	LCD with IPS
Weight	12 kg

## LIGHT SOURCE

Latest PHASER® Technology for unsurpassed medical lighting. Excellent light sources are characterized by high color rendering, high luminance and a very low ultraviolet and infrared radiation. With the LUMEN LED 3 light source RZ Medizintechnik offers the latest technology in medical lighting, Made in Germany. Whether the light source is used with modern head lights or in endoscopic surgeries, the new PHASER® technology always generates enough light for meaningful pictures.

### Features:

- More than 10.000h lamp lifetime
- 300 Watt daylight quality
- Latest PHASER® – Technology
- Waterproof touch control panel
- High color rendering
- High luminance
- Daylight color temperature
- Low noise level
- No UV or IR light
- Low power consumption



300-900-300  
LUMEN LED 3

### DELIVERY CONTAINS:

- Main Unit (300-900-300)
- BNC cable
- Mains cable
- Operating manual

## Technical Data

Mains voltage	100-240 VAC, 50-60 Hz	Relative humidity	
Power consumption	300W	Storage:	10% to 90%
Mains fuses	2 Fine fuses, 5x20mm, delay acting 6,3 AT, with high breaking capacity (I <sub>a</sub> = 1500 A)	Operation:	30% to 75%
LED Lifetime	> 10.000h	Atmospheric pressure	
Color temperature	6000 – 6500° K	Storage:	600 mbar to 1300 mbar
Connections	Light guide STORZ	Operation:	700 mbar to 1060 mbar
Video-IN terminal	1 x VHS (BNC)	Classification / Conformity	1 / BF
Service	1 x RJ45	Test according to	IEC 601-1ff, EN 60601-1ff
Storage temperature	- 20°C to +60°C	CE marking according to	MDD 93/42/EEC
Operation temperature	+10°C to +40°C	Dimensions	380 x 125 x 360 mm (WxHxD)
		Weight	approx. 12.5 kg

# PHASER® TECHNOLOGY



**LED**

**300 WATT  
DAYLIGHT QUALITY**

## 4K LAPAROSCOPES

State-of-the-art Laparoscopes to achieve excellent image quality and finest details in Ultra High Definition.



UHD 4K Laparoscope,  $\varnothing$  10mm, autoclavable

300-100-400	0°, 330mm
300-100-430	30°, 330mm
300-200-400	0°, 450mm
300-200-430	30°, 450mm



UHD 4K Laparoscope,  $\varnothing$  5mm, autoclavable

300-155-400	0°, 330mm
300-155-430	30°, 330mm
300-255-400	0°, 450mm
300-255-430	30°, 450mm

## LIGHT GUIDE CABLES



Light Guide Cable, without adapter piece  
 250-048-180 Ø 4.8 mm, 1800 mm  
 250-048-230 Ø 4.8 mm, 2300 mm  
 250-048-300 Ø 4.8 mm, 3000 mm

Adapter piece for fibre light guide to use with **Endoscope**



250-042-000 RZ/Storz/Olympus

Adapter piece for fibre light guide to use with **LUMEN LED3**



250-039-000 RZ/Storz adapter



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