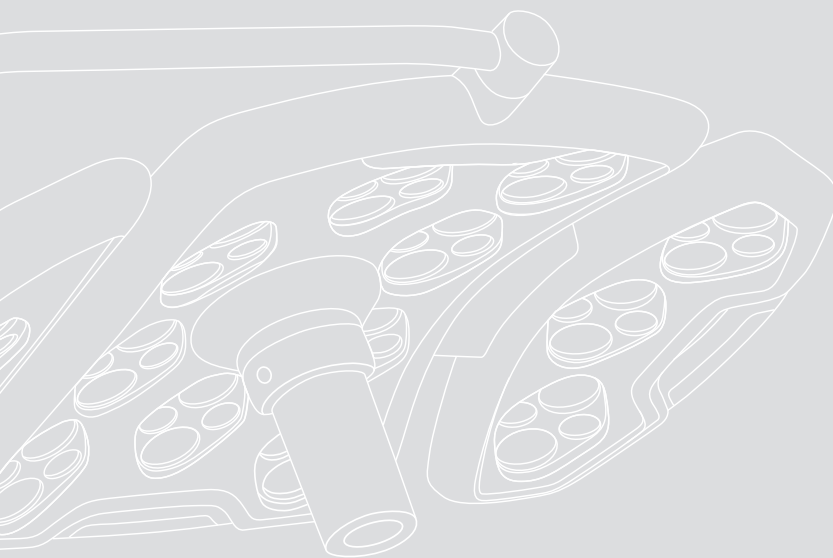




surgiCam® HD Camera

*Eagle eyes in the OR*





## *surgiCam® HD Camera* Eagle eyes in the OR

### *Introduction*

High-quality daylight alone is not enough for surgical site illumination. The HD camera technology offers you more detail and thus a precise image of even the most delicate tissue structures. Thanks to the easy visualization of tissue changes, the HD camera provides the surgeon with valuable diagnostic support.

Telemedical data transmission for large-format display (as required for lecture halls, for example) also benefits from HD image sequences, as the pictures are much sharper in detail than in conventional SD formats.

All KLS Martin operating lights of the marLux® and marLED® series can be equipped with the high-resolution surgiCam® HD camera system. At your option, the camera can be mounted on a suspension arm of its own or integrated within the sterilizable central handle of the operating light. With surgiCam® HD, you get professional image quality in the “Full HD 1080i” format boasting 2 million pixels.

### *1. Models / Upgrade levels*

- **Economy version:** for function control – zoom and image rotation – via the control panel of the operating light
- **Basic version:** for convenient control of all camera functions via a separate control unit.  
Video signal and control signal interface via combination wall socket
  - HD-SDI digital video signal via BNC socket
  - Control signals via multiple DIN socket

### *2. Features*

- 120x zoom (10x optical / 12x digital)
- Full HD video output

#### **Economy (integrated into light head)**

- Zoom and image rotation functions, controllable via the control panel of the operating light

#### **Basic (on separate arm or integrated into light head)**

- Zoom
- Image rotation (“light head” version only)
- Manual focus and auto-focus
- Manual and automatic shutter
- Servomotorized image erection function, remote-controllable
- White balance



### *surgiCam® HD – Eagle eyes in the OR*

- For teleconsultations
- For live transmissions (for education and training)
- For documenting surgical procedures
- Maximum image quality with 2 million pixels in full HD resolution
- HD-SDI digital video signal
- 100% interference-free transmission to external storage media
- No image interference caused by electro-surgery
- 120x zoom
- Available in 2 installation versions:
  - on separate arm
  - integrated into the sterilizable central handle of the operating light, for all marLux® and marLED® lights



| Feature                                   | Technical Details  |
|---|--|
| Image sensor                              | 1/3" CMOS  |
| Number of pixels                          | 1920 x 1080i   |
| Effective pixel number                    | approx. 2,000,000  |
| Signal system                             | Standard: 1080i / 50 Hz<br>Optional: 1080i / 59.94 Hz                          |
|   | 720p / 50 Hz, 720p / 59.94 Hz  |
| Aspect (height-to-width) ratio            | 16:9   |
| Minimum illumination                      | 12 lx  |
| Signal-to-noise ratio (SNR)               | > 50 dB  |
| Zoom                                      | 10x optical / 12x digital  |
| Focal length (zoom lens)                  | f = 5.1 mm to 51 mm  |
| Shutter                                   | 1/2 to 1/10,000 s  |
| White balance                             | automatic  |
| Ambient temperature                       | 0°C – 45°C (32°F – 113°F)  |
| Ambient temperature during operation      | 0°C – 45°C (32°F – 113°F)  |
| Power requirements: control unit / camera | 100-240 V, 50/60 Hz / 24 V AC/DC   |
| Protection class                          | I  |
| Type                                      | B  |
| Protective conductor (PE) terminal        | yes  |
| Power input: control unit / camera        | max. 24 W / approx. 6 W  |
| Camera dimensions                         | 131 x 88 mm (length x diameter)  |
| Weight of camera installed in light head  | approx. 1 kg   |
| Weight of camera mounted on separate arm  | approx. 0.8 kg   |
| Dimensions of control unit (complete)     | 270 x 120 x 280 mm (W x H x D)   |
| Weight of control unit                    | approx. 2 kg   |
| Compatibility                             | marLUX® and marLED® operating lights   |
| Mark of conformity                        | CE   |
| Wall socket connector standard            | 3 x BNC socket for video signal<br>1 x multiple DIN socket for control signals |

### *Distinctive features: SD vs. HD*

|                                | SD               | HD                 |
|--------------------------------|------------------|--------------------|
| Resolution                     | 720 x 576 pixels | 1920 x 1080 pixels |
| Contrast                       | good             | excellent          |
| Aspect (height-to-width) ratio | 4:3              | 16:9               |
| Color differentiation          | good             | excellent          |

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