

# medifa

Member of REINSBERG® GROUP



## medifa H!Light

LED operating light system

Made in Germany

# medifa H!Light

- Innovative lighting technology combined with high functionality and 160,000 lux light intensity in every light field
- User-friendly innovativ control concept
- OP adapted color temperature of 3,000 - 5,500 K, with consistently high color rendering Ra>97
- Active shadow management
- One universal handle holder for all cameras (4K and HD) and all handles
- Sterile control at the multifunction handle
- Lightweight construction (aluminium housing)
- VSG safety glass window
- Ideal cleaning and disinfection conditions
- Sustainable energy efficiency with minimal temperature increase
- Long lifespan
- Optional: 360° monitor arm with stopless signal transmission
- Optional: HD or 4K wireless camera





# medifa H!Light - illuminating advantages



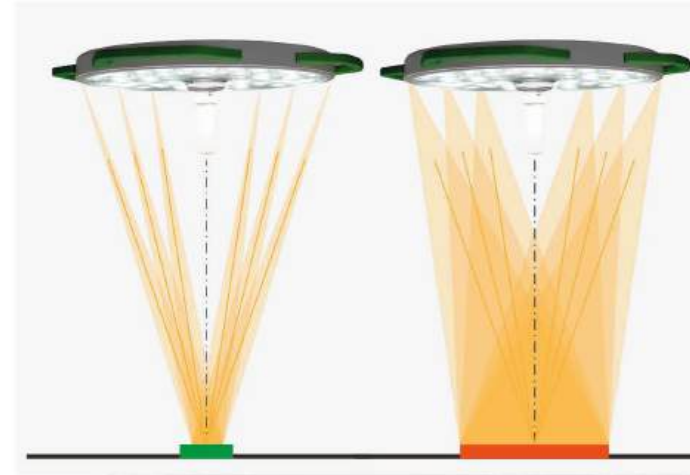
## Light field size and shadow management

- Light field sizes from 18 - 32 cm for the distances of 0.8 to 1.2 metres frequently required in everyday operating theatres with a maximum working range of up to 1800 mm.
- More than 330 individually calculated free-form facets per lens enable a beam path concept that avoids shadow formation (passive shadow management).
- With the active shadow management of medifa H!Light plus, additional sensors ensure automatic light guidance and intelligent control of the individual LEDs, thus ensuring a homogeneously illuminated situs.



## LED Technology

- The newest medifa LED technology for a homogeneous mixture of cold and warm white LEDs behind the lenses.
- The mixed light emerges as white light and is distributed evenly over the wound area.
- This prevents the creation of colour shadows by the surgeon's head or hands in the light channel of the operating light.



## Focus

- Electronic focus through the medifa dual lens system, consisting of 72 versatile lenses with 144 warm and cool white LEDs.
- No mechanical adjustment of the optical components necessary.
- Thanks to the dual-lens system and the homogeneous mix of cool/warm white LEDs behind the lenses and not in the operating field, the shade values remain constant even at extreme color temperatures such as 3,000k or 5,500k with high color rendering.



## Universal handle holder

- The universal handle holder offers unique flexibility.
- All handle adapters and available cameras fit into the same handle holder.
- Tool-free changing of components.

# medifa H!Light - illuminating advantages



## Colour temperature

- The right colour temperature for every type of tissue and wound structure.
- From 3,000 K to 5,500 K.



## Airflow optimised shape

- Aerodynamic shape of the closed light body with smooth surface, no edges, no screws or notches.
- For the specific requirements of ventilation systems in the operating theatre as well as easy cleaning and disinfection.
- Due to the shape of the outer handles 2 lights can be positioned directly next to each other.



## Endoscopy mode

- The inner area is illuminated in green for higher contrast on the monitor.
- Extremely user-friendly for minimally invasive procedures.



## Prepared for hybrid ORs

- With long extension arms and X-ray protection shields on the spring arm, the medifa H!Light series meets all requirements in the modern hybrid OR.



# Models



**medifa H!Light**  
Art-no. 100200



**medifa H!Light plus**  
Art-no. 100400

	Colour temperature 3,000 K -5,500 K	●	●
	Control element on light head	●	●
	Sterile control at the multifunction handle	◆	◆
	Passive shadow management	●	●
	Active shadow management		●
	Prepared for attachment of cameras	●	●
	Camera	◆	◆
	Endoscopy mode	●	●
	Memory-function	●	●

● included ◆ optional



# medifa H!Light - combinations

## Single light

Art.-no. 106100



## Mobile light

Art.-no. 106120



## Duo combination light and monitor

Art.-no. 106200



## Single monitor

Art.-no. 106100



## Trio combination 2 lights and monitor

Art.-no. 106300



## Duo combination lights

Art.-no. 106200



## Trio combination 3 lights

Art.-no. 106300



Each combination can consist of medifa H!Light, medifa H!Light plus, medifa H!Light Ic or medifa H!Light plus Ic for the operating light.

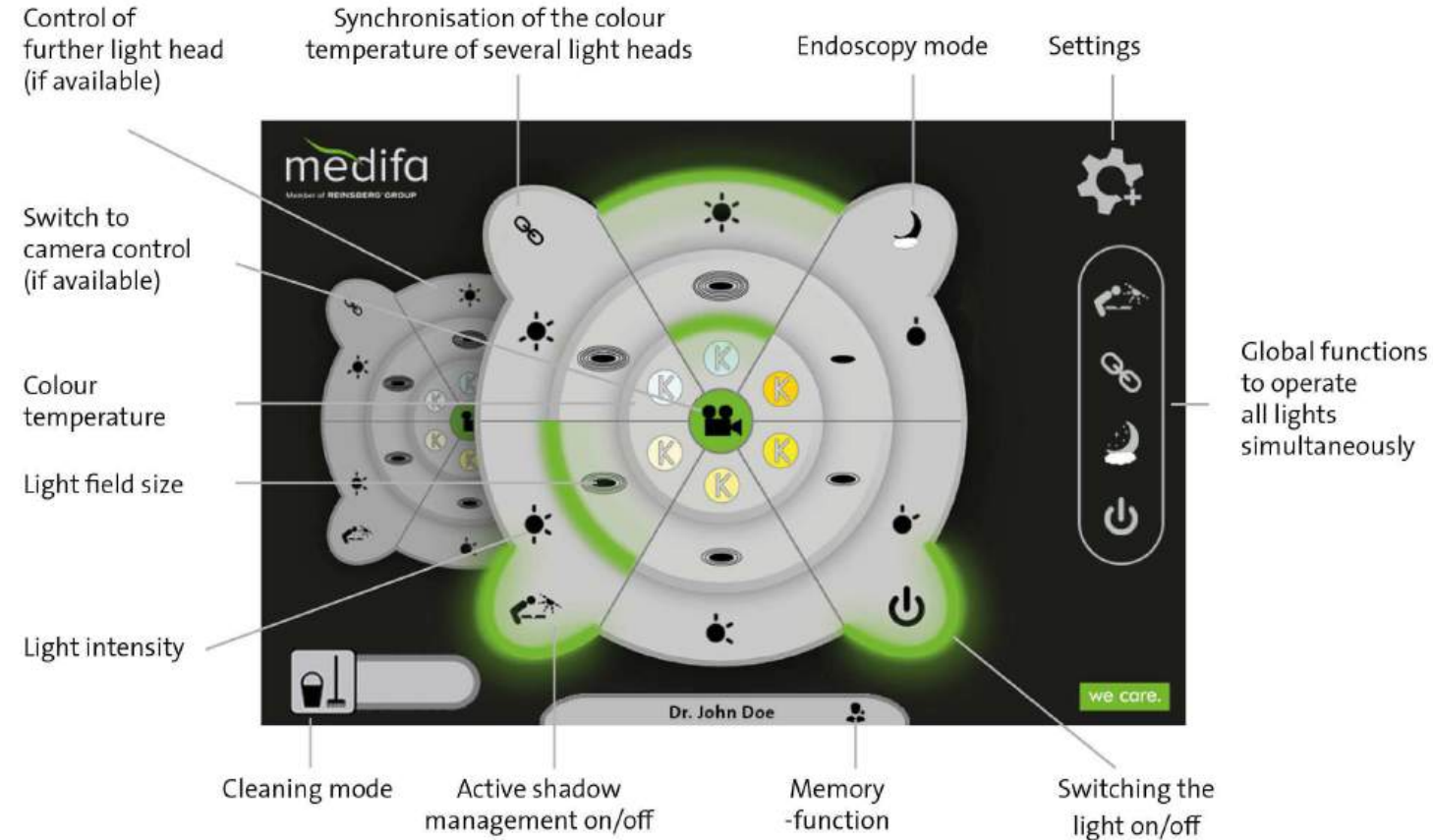


# User-friendly control concept

## Operating light

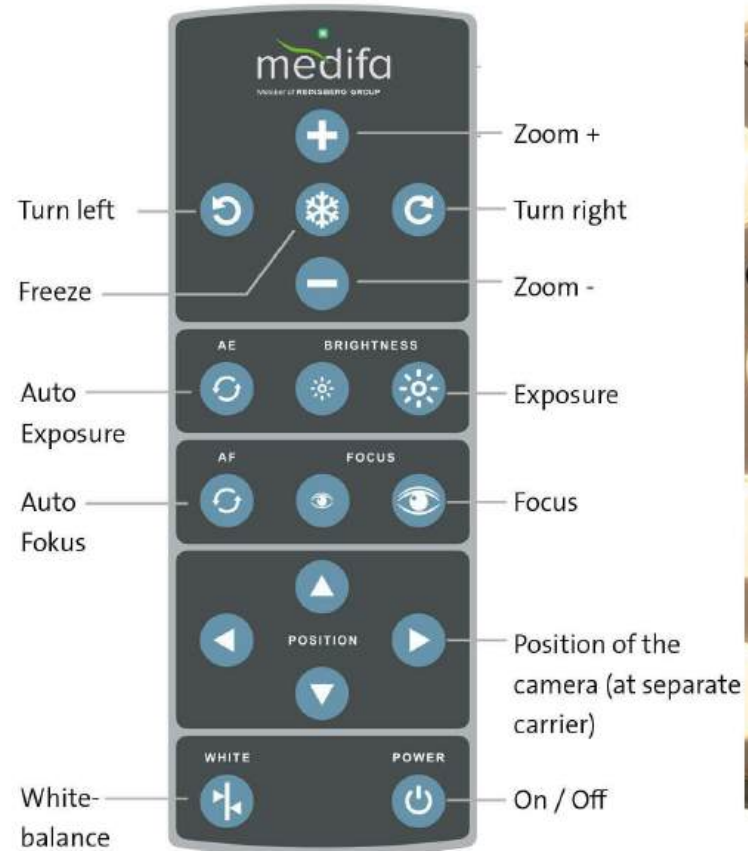
### Touch control element

on the light head and optionally as wall control units surface-mounted (Art. no. 105600), flush-mounted (Art. no. 105650) or panel-mounted (Art. no. 105660).



## Wireless-camera

### Remote control



### Option: Sterile control at the multifunction handle

Intensity, light field size, colour temperature and endoscopy mode can be controlled on the sterile handle.

- Selection of the function by pressing the push button at the handle
- The selected function can be adjusted by turning the sterilisable handle

# medifa H!Light for your OR



**Everything from one source for your Operating theatre:**

1. Operating lights
2. Modular room system
3. Mobile operating tables and accessories
4. Medical furniture and customized solutions



## Technical data operating light

Light intensity in 1 m distance (in lx)	40,000 - 160,000
Adjustability of the light intensity (in %)	25 - 100
Colour temperature (Kelvin)	3,000 - 5,500
Colour rendering index $R_a$	97
Colour rendering index $R_g$ (blood)	97
Colour rendering index $R_{13}$ (skin)	99
Focusable light field size (Diameter $d_{10}$ in cm)	18 - 32
$d_{50}/d_{10}$ ratio	0.5 - 0.6
Working distance (in cm)	60 - 180
Diameter of light head (in cm)	60
Temperature increase in the head area	<0.5°
Number of lenses	72
Life-span of the LEDs (in hours)	> 60,000
Depth of light field L1+L2 at 60% $E_c$ (cm)	65
Depth of light field L1+L2 at 20% $E_c$ (cm)	120
Radiation energy	< 600 W/m <sup>2</sup>
Total power consumption (per light head)	160 VA

All values are conform to IEC 60601-2-41 and are subject to a general industrial tolerance of ± 5%.

\*In accordance with the IEC 60601-2-41 standard, the maximum illuminance must not exceed 160,000 lx. The industrial tolerance is therefore only -5%.

## Technical data wireless-camera

	wireless HD (Art.-no. 103200)	wireless 4K (Art.-no. 103200)
Resolution (in pixel)	approx. 2,140,000	8,510,000
Resolution	1,920 x 1,080	3,840 x 2,160
Zoom	30x optical, 12x digital	20x optical, 12x digital
Image rotation	limitless, motorised	limitless, motorised
Video outputs	HDMI 1.4, DVI	HDMI 1.4, DVI
Aspect ratio	16:9	16:9
Dimensions (∅, length)	68 mm x 179 mm	68 mm x 179 mm
Weight camera (in kg)	1	1
Security of data transmission	exclusively between coupled transmitter + receiver AES 128 bit encryption	exclusively between coupled transmitter + receiver AES 128 bit encryption



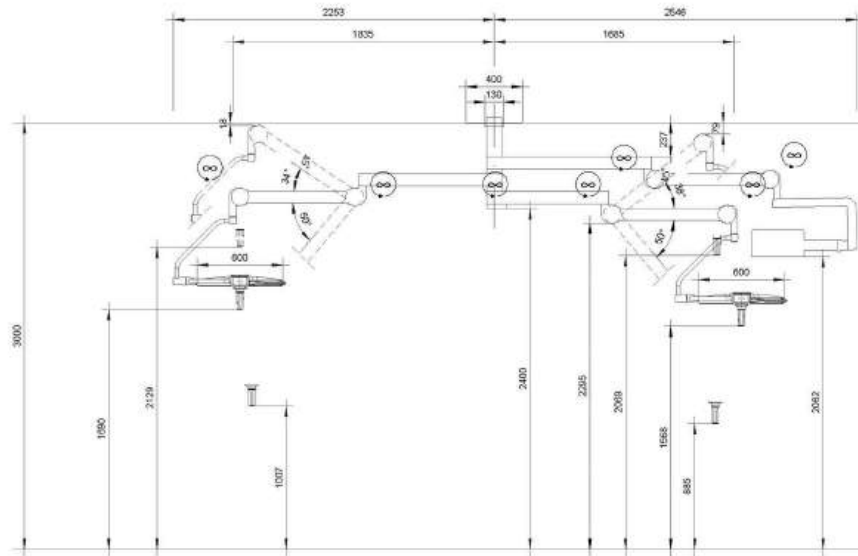
Use our wireless camera systems in the operating theatre for detailed, precise representation and highest image quality

Our cameras offer you finely structured images, optimum detail and brilliant reproduction with clear, sharp contours and perfect colour reproduction from every position.

A wired solution is also available on request.

# Configuration examples

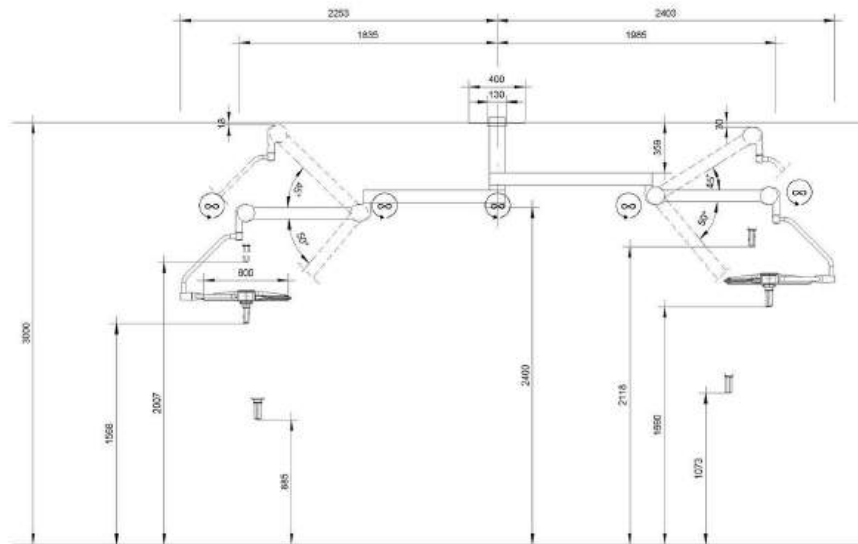
## Triple combination with monitor holder



### Combination of

- **Art.-no. 105075** Flat cover 400x400
- **Art.-no. 105060** Ceiling tube 105 mm
- **Art.-no. 105300** Central axis trio
- **Art.-no. 100200** medifa H!Light
- **Art.-no. 100400** medifa H!Light plus
- **Art.-no. 105700** 2x medifa handle adapter standard or  
**Art.-no. 105750** medifa handle adapter sterile control
- **Art.-no. 102400-1** medifa H!Light monitor holder stopless or  
**Art.-no. 102200-1** medifa H!Light monitor stop

## Double combination



### Combination of

- **Art.-no. 105075** Flat cover 400x400
- **Art.-no. 105060** Ceiling tube 105 mm
- **Art.-no. 105200** Central axis duo
- **Art.-no. 100200** medifa H!Light
- **Art.-no. 100400** medifa H!Light plus
- **Art.-no. 105700** 2x medifa handle adapter standard or  
**Art.-no. 105750** medifa handle adapter sterile control

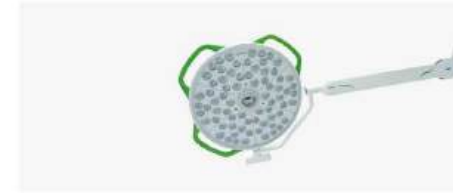
# Models and accessories



### medifa H!Light Art.-no. 100200

#### Art.-no. 100400 with active shadow management

- Power supply 100 ~ 240 V AC oder 24 V DC
- Spring arm standard height
- Light head with double yoke and camera prep. wireless



### medifa H!Light lc (low ceiling height) Art.-no. 100200L

#### Art.-no. 100400L with active shadow management

- Power supply 100 ~ 240 V AC oder 24 V DC
- Spring arm low ceiling height
- Light head with single yoke and camera prep. wireless



### medifa H!Light monitor holder

#### Art.-no. 102400-1 with 4K transmission through slip rings

#### Art.-no. 102200-1 with STOP for cable pulling on site

- Spring arm 12,5 - 21,5 kg
- Monitor holder single up to 32"
- Interface VESA 75x75, 100x100, 100x200, 100x400



### Ceiling fixation set Light

#### Art.-no. 105050

- For intermediate ceiling
- Max. distance intermediate/bare ceiling 1,200 mm for installation with flat cover
- Consisting of: 1x Ceiling anchor plate M16, 6x Distance unit M16



### Ceiling tube 105 mm

- Art.-no. 105060
- Ceiling tube diameter: 105 mm
- Standard length: 300 mm or 500 mm
- Other length on request
- Fixation hole pattern 6x M16 270 mm





**Cover 590**

**Art.-no. 105095**

- Solo cover round
- D = 590 mm H = 125 mm
- Two part with 6 pcs. Mounting screws
- one part holding ring



**Flat cover 400x400**

**Art.-no. 105075**

- Flat cover Solo
- 400 x 400 mm H = 2 mm
- Two part holding ring



**Installationkit Laminar Air Flow**

**Art.-no. 105080**

- Two units, two part holding ring



**Central axis single**

**Art.-no. 105100**

- Central axis and extension arm
- Extension arm length standard: 1,075 mm



**Central axis duo**

**Art.-no. 105200**

- Central axis and extension arm
- Extension arm length standard: 925 mm / 1,075 mm



**Central axis duo hybrid**

**Art.-no. 105210**

- Central axis and extension arm
- Extension arm length standard: 1,375mm / 1,525 mm



**Central axis trio**

**Art.-no. 105300**

- Central axis and extension arm
- Extension arm length standard: 775 mm / 925 mm / 1,075 mm



**medifa H!Light X-Ray shield 76x60**

**Art.-no. 102800-1**

- Spring arm
- X-Ray protection shield Pb =0,5 mm
- Dimensions 76 x 60 cm
- Body cut out



**medifa H!Light X-Ray shield 78x90**

**Art.-no. 102900-1**

- Spring arm
- X-Ray protection shield Pb =0,5 mm
- Dimensions 78 x 90 cm
- Body cut out and additional slats



**X-Ray shield disposable covers**

- 1 box (50 pieces disposable covers)



**medifa handle adapter**  
**Art.-no. 105700 standard without control function**  
**Art.-no. 105750 with control function**

- Weight dummy for light head
- For sterilisable handles



**medifa handle standard (set of 5)**  
**Art.-no. 104100**

- Sterilisable handle made from PPSU

**medifa handle camera (set of 5)**  
**Art.-no. 104200**

- Sterilisable handle camera made from PPSU



**Additional adapter disposable**  
**Art.-no. 104300**

- Adapter for upgrade handle adapter or monitor holder for disposable handles



**medifa H|Light wireless HD**  
**Art.-no. 103200**

- Camera module HD and receiver module HD
- DVI-D connector
- 30x optical zoom, 12x digital zoom
- IR remote control



**medifa H|Light wireless 4K**  
**Art.-no. 103400**

- Camera module 4K and receiver module 4K
- DVI-D connector
- 20x optical zoom, 12x digital zoom
- IR remote control

## Competence around operating rooms

As a leading international manufacturer of medical products, medifa GmbH offers innovative products and solutions for operating rooms, mobile hybrid operating systems and other areas in hospitals or outpatient surgical centers. The big product portfolio includes mobile operating tables and operating accessories, mobile carbon operating tables, operating lights, as well as examination and treatment chairs.

The medifa GmbH is a company of the Reinsberg Group, a leading and globally active European manufacturer of medical products and solutions for hospitals.

The development, construction and production of medifa products take place in Germany. With a large share of added value in the company group, medifa guarantees its customers fast response times and high quality “Made in Germany” in accordance with certified national and international quality standards. medifa consistently focuses on the current and future requirements of its customers. In line with the slogan “we care”, customers from all over the world can rely on top-class consultation, processing and quality from a single source.

## Products

- Operating lights (medifa H|Light)
- Mobile operating tables
- Mobile carbon operating tables for minimal invasive applications
- Accessories for operating tables and lights
- Examination and treatment chairs (gynecology, urology and proctology)
- Medical functional furniture

## medifa worldwide





# medifa

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Subject to modifications due to technical development.

This document is intended to provide information to an international audience outside of the US.



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[www.medifa.com](http://www.medifa.com)

we care.