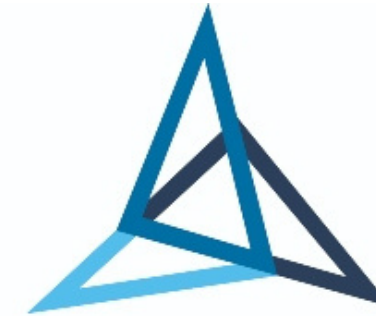# medifa
the medical factory

medifa H!Light

LED operating light system

we care.

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astralhealthcare
INNOVATION AND BEST IN CLASS SOLUTIONS

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Web: www.astralhealthcare.com

medifa H!Light

- Innovative lighting technology combined with high functionality and 160,000 lux light intensity

- User-friendly control concept

- Operating theatre adapted colour temperature from 3,000 - 5,500 K

- Large, homogeneous surface illumination

- 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
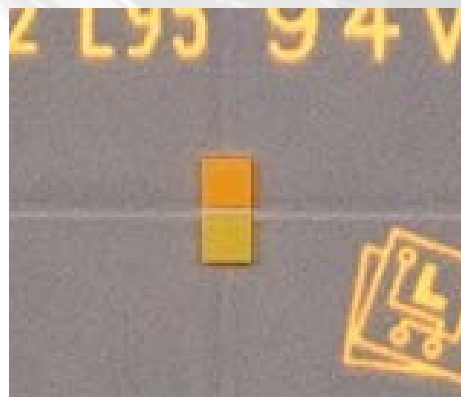
- Optional: HD or 4K wireless camera
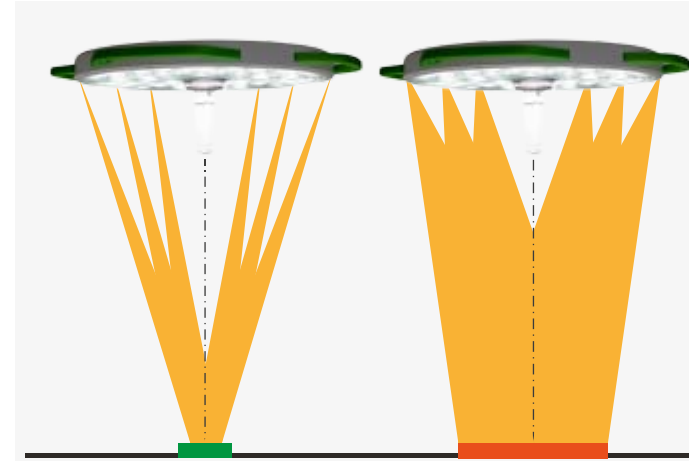
medifa H!Light - illuminating advantages

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.

• 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.

Focus

• Electronic focus through the medifa dual lens system, consisting of 72 versatile lenses in 2 sizes.

• 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, the shading values remain constant even at extreme colour temperatures such as 3,000K or 5,500K.

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.

Universal handle holder

• The universal handle holder offers unique flexibility.

• All handle adapters and available cameras fit into the same handle holder.

• Tool-free change possible.

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.

5,500 K   3,000 K

Endoscopy mode

• The inner area is illuminated in green for higher contrast on the monitor.

• Extremely user-friendly for minimally invasive procedures.

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.

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

included   u   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 lc or medifa H!Light plus lc for the operating light.

User-friendly control concept

Operating light

Touch control element

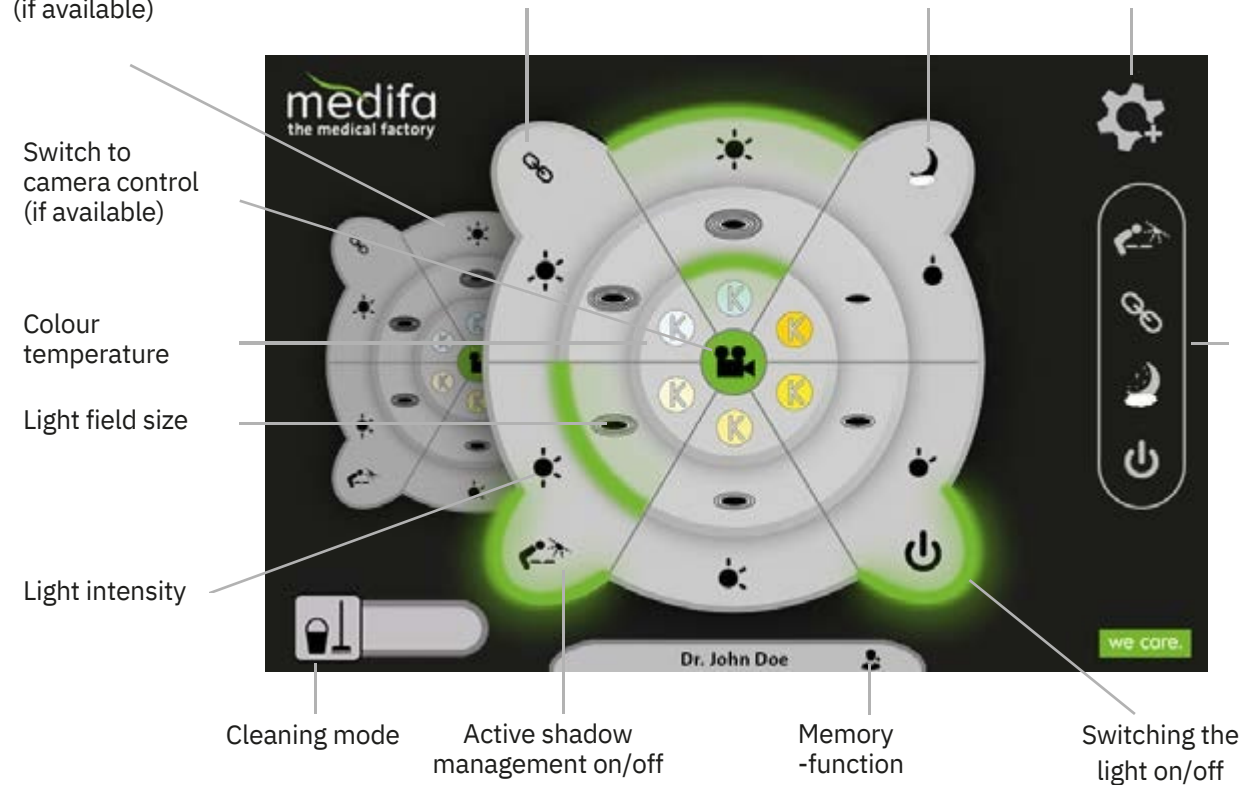on the light head and optionally as wall control units surface-mounted (Art. no. 105600), flush-mounted (Art. no. 105650) or panel-mounted (Art. no. 105660).

Control of Synchronisation of the colour
further light head temperature of several light headsEndoscopy mode Settings (if available)

Labels:
- Switch to camera control (if available)
- Colour temperature
- Light field size
- Light intensity
- Cleaning mode
- Active shadow management on/off
- Memory -function
- Switching the light on/off
- Global functions to operate all lights simultaneously

Dr. John Doe

we care.

Option: Sterile control at the multifunction handle
Intensity, light field size, colour temperature and endoscpoy 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

Wireless-camera

Remote control

Labels:
- Turn left
- Freeze
- Auto Exposure
- Auto Fokus
- White-balance
- Zoom +
- Turn right
- Zoom -
- Brightness
- Focus
- Position of the camera (at separate carrier)
- On / Off

medifa H!Light for your OR

Everything from one source for your Operating theatre:

1. Operating lights

2. Modular room system RooSy

3. Mobile operating tables and accessories

4. Medical furniture and customized solutions

Technical data

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 9 (blood)	97
	99
Colour rendering index R 13 (skin)	18 - 32
Focusable light field size (Diameter d 10 in cm)	0.5 - 0.6
	70 - 150
d 50/d10 ratio	60
Working distance (in cm)	<0.5°
Diameter of light head (in cm)	72
Temperature increase in the head area	> 60,000
Number of lenses	65
Life-span of the LEDs (in hours)	
Depth of light field L1+L2 at 60% Ec(cm)	120
Depth of light field L1+L2 at 20% Ec(cm)	< 600 W/m2
Radiation energy	160 VA
Total power consumption (per light head)	

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%.

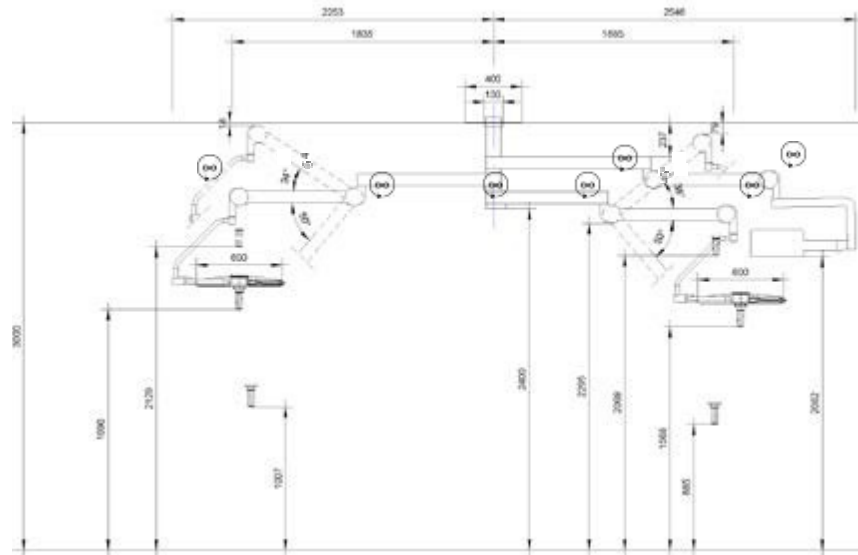| Technical data wireless-camera	wireless HD (Art.-no. 103200)	wireless 4K (Art.-no. 103200)
Resolution (in pixel)	approx. 2,140,000	8,510,000
Resolution	1,920 x 1,080	3,840 x 2,160
Zoom	30x optical, 12x digital	20x optical, 12x digital
Image rotation	limitless, motorised	limitless, motorised
Video outputs	HDMI 1.4, DVI	HDMI 1.4, DVI
Aspect ratio	16:9	16:9
Dimensions (Ø, 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.

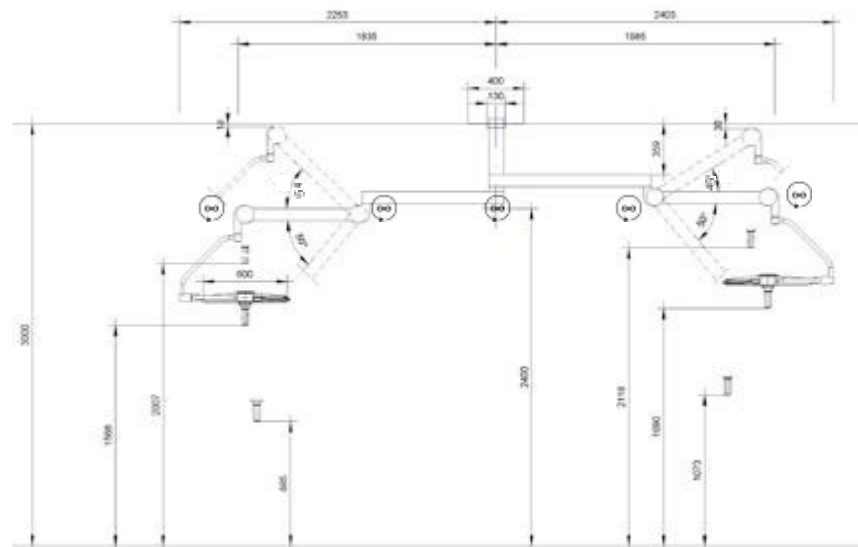A wired solution is also available on request.

Configuration examples

Triple combination with monitor holder

Combination of

- Flat cover 1050x750
- Art.-no. 105075
- Ceiling tube 105
- Art.-no. 105060 mm
- Central axis 300
- Art.-no. 105300
- medifa H!Light
- Art.-no. 100200
- medifa H!Light plus
- Art.-no. 100400
- 2x medifa handle adapter standard or Art.-no. 105700
- 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
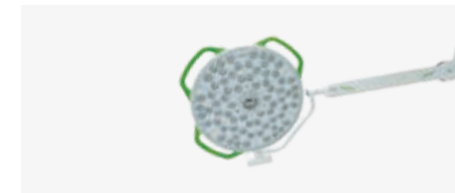
Double combination

Combination of

- Flat cover 1050x750
- Art.-no. 105075
- Ceiling tube 105
- Art.-no. 105060 mm
- Central axis 300
- Art.-no. 105300
- medifa H!Light
- Art.-no. 100200
- medifa H!Light plus
- Art.-no. 100400
- 2x medifa handle adapter standard or Art.-no. 105700
- Art.-no. 105750 medifa handle adapter sterile control

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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 side
- 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

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Accessories

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the medical factory

Cover 590
Art.-no. 105095
• Solo cover round
• D = 590 mm H = 125 mm
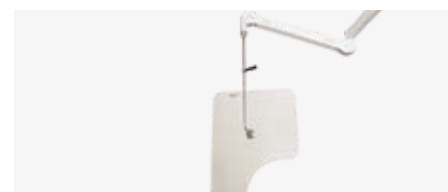• Two part with 6 pcs. Mounting screws • one part holding ring

Central axis duo hybrid
Art.-no. 105210
• Central axis and extension arm
• Extension arm length standard: 1,375mm / 1,525 mm

Flat cover 400x400 Art.-no.
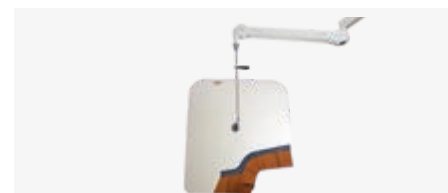105075
• Flat cover Solo
• 400 x 400 mm H = 2 mm • Two part holding ring

Central axis trio
Art.-no. 105300
• Central axis and extension arm
• Extension arm length standard: 775 mm / 925 mm / 1,075 mm

Installationkit Laminar Air Flow
Art.-no. 105080
• Two units, two part holding ring

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

Central axis single Art.-no.
105100
• Central axis and extension arm
• Extension arm length standard: 1,075 mm

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

Central axis duo Art.-no.
105200
• Central axis and extension arm
• Extension arm length standard: 925 mm / 1,075 mm

X-Ray shield disposable covers
• 1 box (50 pieces disposable covers)

Accessories

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

The medifa healthcare group unites competence concerning operating rooms under one roof.

medifa is an owner-run and internationally active complete solution provider in the medical technology.

The product and service portfolio covers all operating room requirements from modular wall, door, ceiling and cabinet systems (RooSy® Room Systems) for the turnkey operating room, as well as operating tables with accessories, operating lights right up to special construction solutions and medical furniture. In addition, one of the largest German OEM suppliers in the medical technology sector also belongs to medifa.

medifa GmbH & Co. KG (Finnentrop), medifa hygienic rooms GmbH (Ötigheim) and medifa metall und medizintechnik GmbH in Rastatt are all part of this group of companies. The medifa healthcare group employs approximately 350 employees at three locations within Germany. The planning, e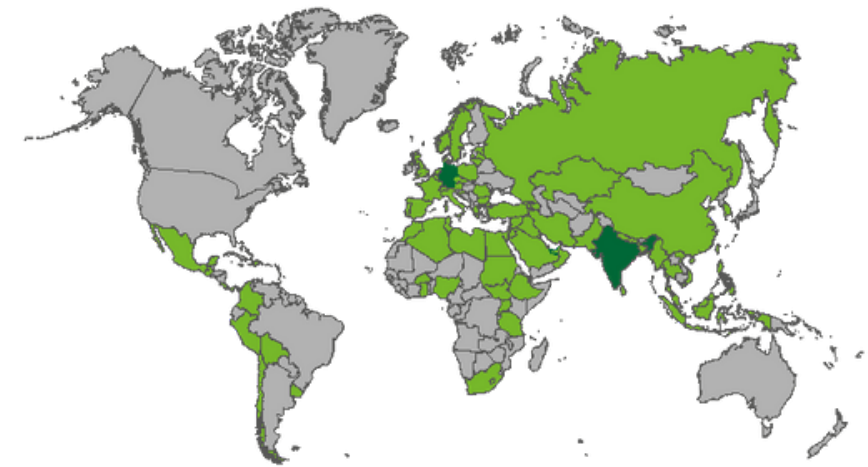ngineering and production take place exclusively in Germany, and with over 80% added value in the group of companies, the group guarantees fast reaction times.

The slogan "we care" means for us that we consistently orientate ourselves according to the requirements of our customers. Customers all over the world can rely on top-class consultation, processing and quality from a single source, made in Germany according to certified national and international quality standards.

Products

• Modular operating room systems (RooSy)

• Operating lights (H!Light)

• Mobile carbon tables for minimally invasive applications

• Operating tables and accessories

• Examination and treatment chairs

• Medical furniture and trolleys

• Customized medical solutions

medifa worldwide

we care.

medifa
the medical factory

astralhealthcare
INNOVATION AND BEST IN CLASS SOLUTIONS

CE

we care. Code

we care.

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