medifa

Member of REINSBERG GROUP

medifa H!Light

LED operating light system

Made in Germany

Competence around operating rooms

medifa GmbH

As one of the leading manufacturers of medical devices, medifa GmbH offers innovative complete solutions and products for the entire operating room in hospitals or ambulatory surgical centres. The product portfolio includes modular solutions, mobile operating tables, mobile carbon operating tables, operating lights, examination and treatment chairs and a wide range of high-quality functional accessories.

Development, design and production of medifa products take place in Germany. With a large share of added value in the group of companies, 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, quality and service from a single source.

Since 2023, medifa has been part of the international Reinsberg Group.

medifa - Member of Reinsberg Group

Reinsberg Group

Reinsberg Group encompasses European companies specializing in providing high-quality solutions in the field of healthcare. Under the unified umbrella brand, the group manages companies such as the German medifa, the UK-based Brandon Medical, or the Polish companies FAMED Zywiec and ALVO Medical. The group helps its companies to grow and be an active, reliable, and dynamic partner for the public and commercial sectors on the global market.

By combining several synergistic effects, Reinsberg Group can focus more on strengthening science and research, thereby expanding a portfolio of goods and services. The holding structure enables partner companies to respond more quickly to needs of the market as well as to explore new investment opportunities within the healthcare sector.

The goal of Reinsberg Group is to build a powerful MedTech Group of European based medical manufacturers, which globally provide their customers

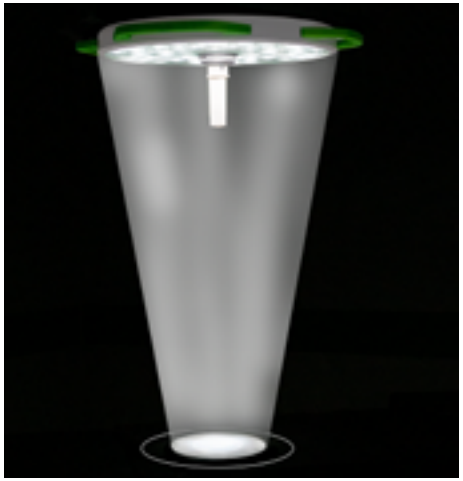
REINSBERG® GROUP

European MedTech Solution

medifa H!Light

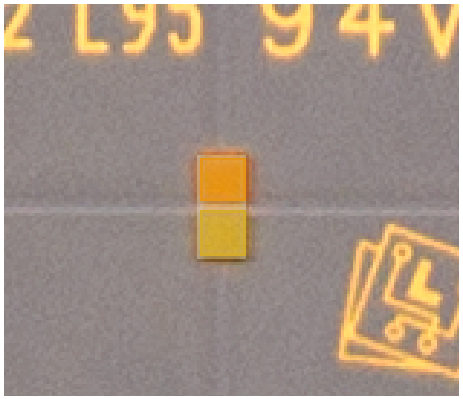
- Innovative lighting technology combined with high functionality and 160,000 lux light intensity in every light field
- User-friendly innovativ control concept
- OR adapted color temperature of 3,000 - 5,500 K, with consistently high color rendering Ra>97
- Active shadow management
- One universal adapter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

medifa H!Light - illuminating advantages



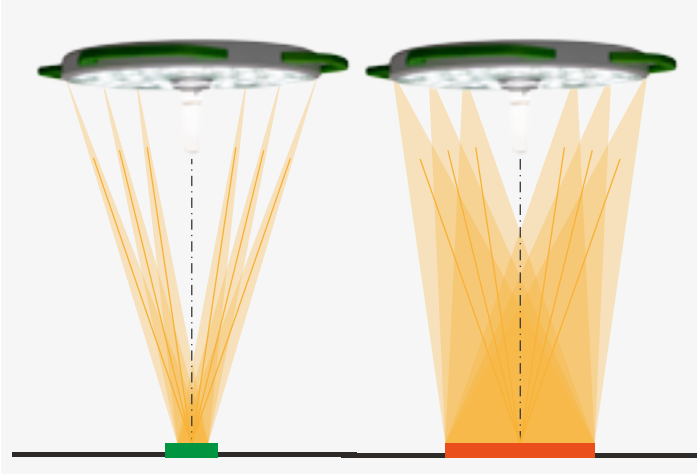
Light field size and shadow management

- Light field sizes from 15 - 30 cm for the distances of 0.8 to 1.6 metres frequently required in everyday operating rooms
- 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



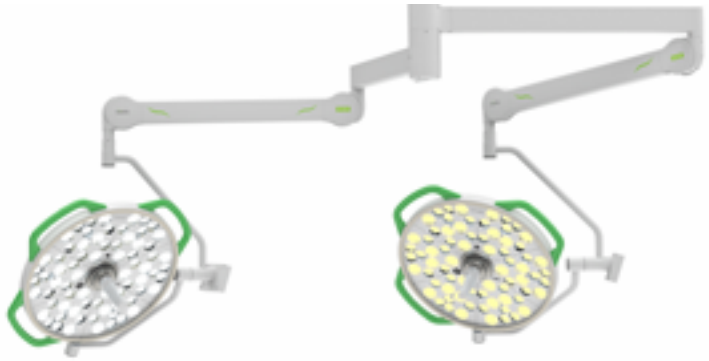
Focus

- 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 3,000 K or 5,500 K with high color rendering

Universal adapter

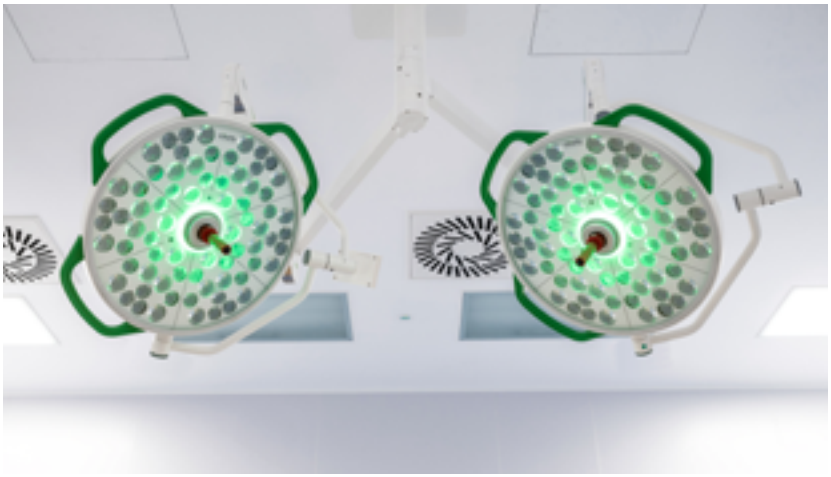
- The universal adapter offers unique flexibility
- The multifunctional handle and available cameras fit into the same universal adapter
- Tool-free changing of components

medifa H!Light - illuminating advantages



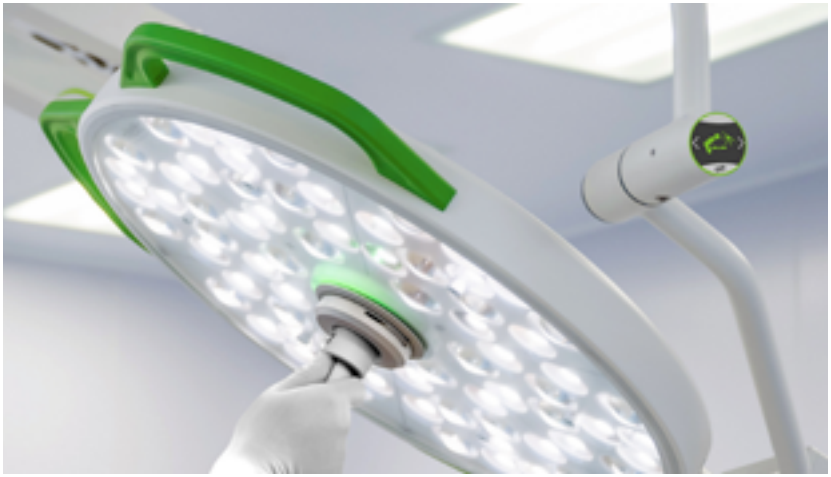
Colour temperature

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



Endoscopy mode

- The inner area is illuminated in green for higher contrast on the monitor or any other RGB colour
- 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

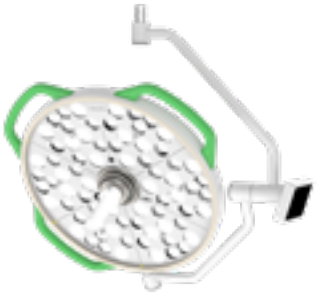
medifa H!Light plus
Art-no. 100400

	Colour temperature 3,000 K - 5,500 K	●	●
	Cardanic with 5“ touch display	◆	◆
	Cardanic with 1,3“ touch display	◆	◆
	Sterile control at the multifunction handle	●	●
	Passive shadow management	●	●
	Active shadow management		●
	Prepared for attachment of cameras	●	●
	Prepared for wired signal transmission	◆	◆
	Camera	◆	◆
	Endoscopy mode	●	●
	Memory-function	●	●

● **included** ◆ **optional**

medifa H!Light - combinations

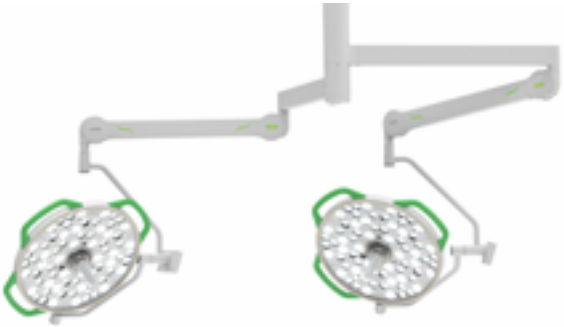
Single light
Art.-no. 106100



Single monitor
Art.-no. 106100

Mobile light
Art.-no. 106120

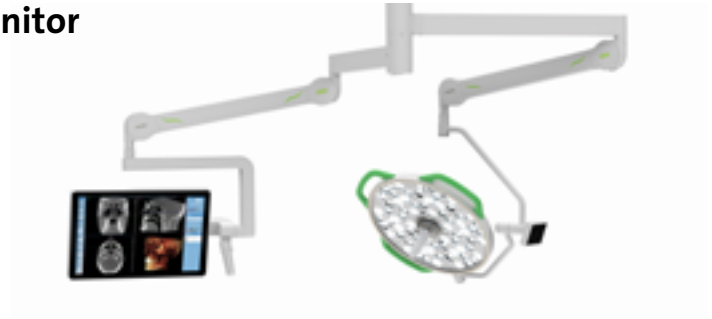
Duo combination lights
Art.-no. 106200



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.

Duo combination light and monitor

Art.-no. 106200



Trio combination 2 lights and monitor

Art.-no. 106300

Trio combination 3 lights

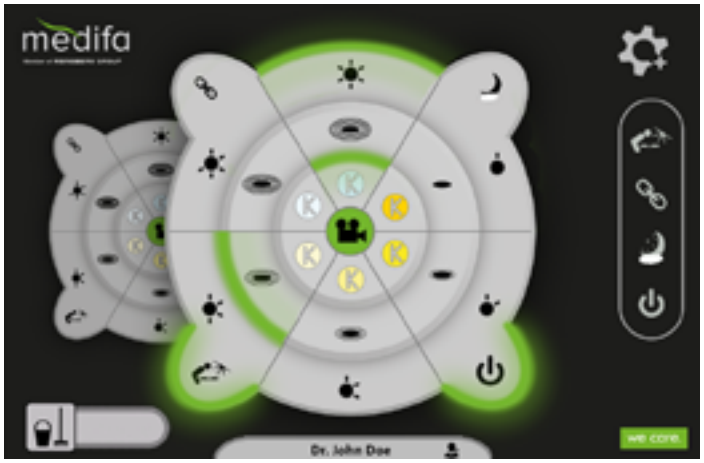
Art.-no. 106300

User-friendly control concept

Operating light

5“ Touch Display

The 5“ touch display provides users with intuitive control of all functions at a glance. All settings are accessible with a single tap, allowing the user to select and control each light in the network individually from a central point. Additionally the 5“ touch display is available as a wall-mounted unit in two versions: flush-mounted (Art.-no. 105650) and surface-mounted (Art.-no. 105600).



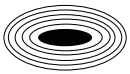
1,3“ Touch Display

The 1.3“ touch display with its intuitive navigation concept also provides all the control functions of the light (except camera control). In multiple lighting systems, it complements the 5“ touch display and is the perfect extension to the wall control unit.

Switching the light on/off

Settings

Light intensity


Light field size

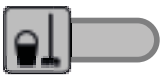
Colour temperature

Active shadow management on/off

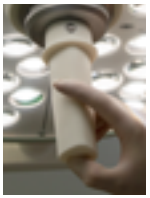
Memoryfunction

Endoscopy mode

Switch to camera control (if available)


Cleaning mode

Switching the synchronization of the lamp head on or off



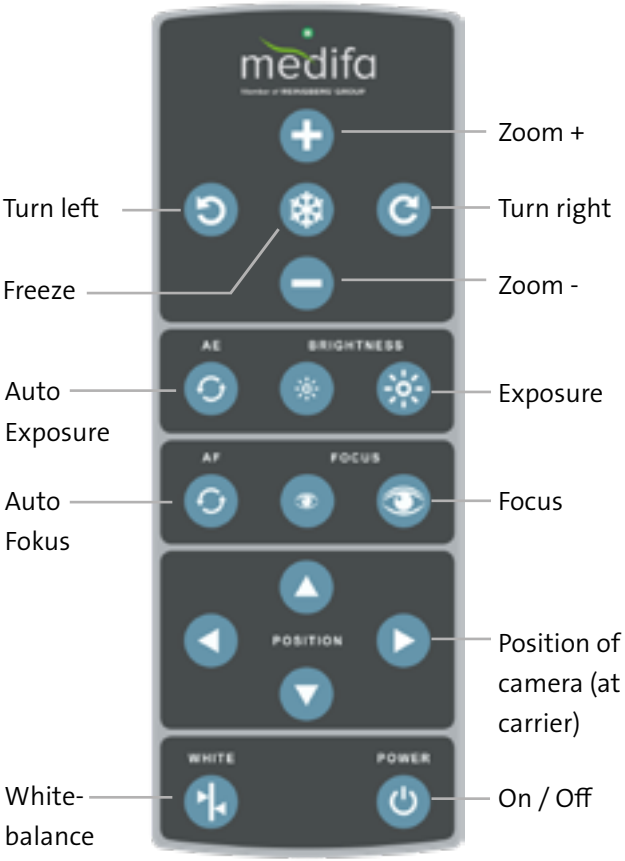
Option: Sterile control at the multifunction handle

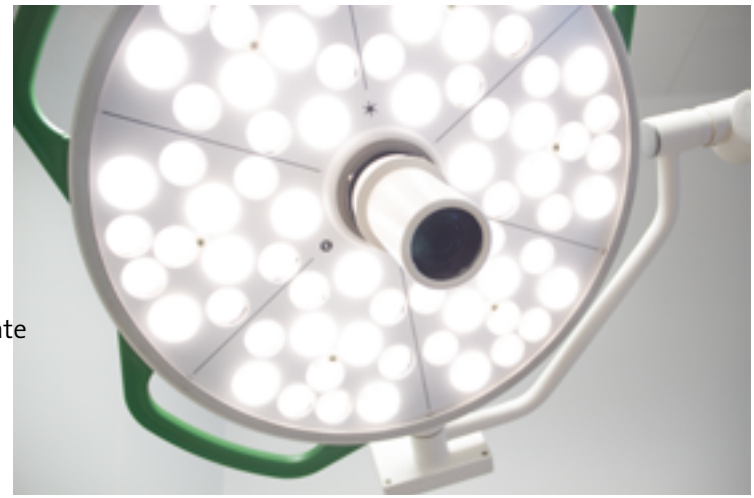
Intensity, light field size, colour temperature and endoscpoy mode can be controlled on the sterile handle.

- 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





Technical data wireless-camera

	wireless HD (Art.-no. 103200)	**wireless 4K** (Art.-no. 103400)	**wired 4K** (Art.-no. 103600)
Resolution (in pixel)	approx. 2,140,000	8,510,000	8,510,000
Resolution	1,920 x 1,080	3,840 x 2,160	3,840 x 2,160
Zoom	30x optical, 12x digital	20x optical, 12x digital	20x optical, 12x digital
Image rotation	limitless, motorised	limitless, motorised	limitless, motorised
Video outputs	HDMI 1.4, DVI	HDMI 1.4, DVI	HDMI 1.4, DVI
Aspect ratio	16:9	16:9	16:9
Dimensions (Ø, length)	68 mm x 179 mm	68 mm x 179 mm	68 mm x 179 mm
Weight camera (in kg)	1	1	1
Security of data transmission	exclusively between coupled transmitter + receiver AES 128 bit encryption	exclusively between coupled transmitter + receiver AES 128 bit encryption	exclusively between coupled transmitter + receiver

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.

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

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
Colour rendering index R_{13} (skin)	99
Focusable light field size (Diameter d_{10} in cm)	15 - 30
d_{50}/d_{10} ratio	0.5 - 0.7
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% Ec (cm)	79
Depth of light field L1+L2 at 20% Ec (cm)	160
Radiation energy	< 650 W/m2
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 ± 10%.
*In accordance with the IEC 60601-2-41 standard, the maximum illuminance must not exceed 160,000 lx. The industrial tolerance is therefore only -10%.

Configuration examples

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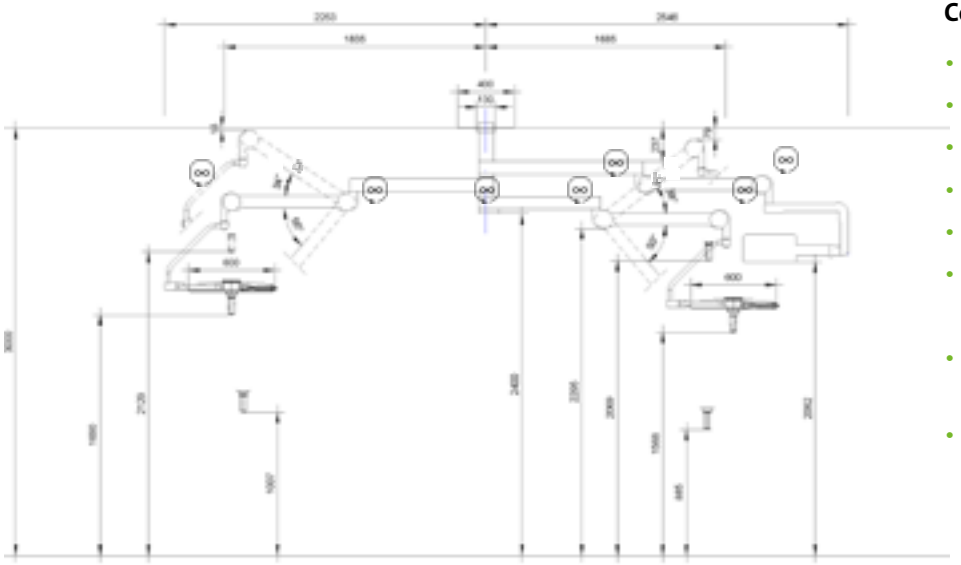
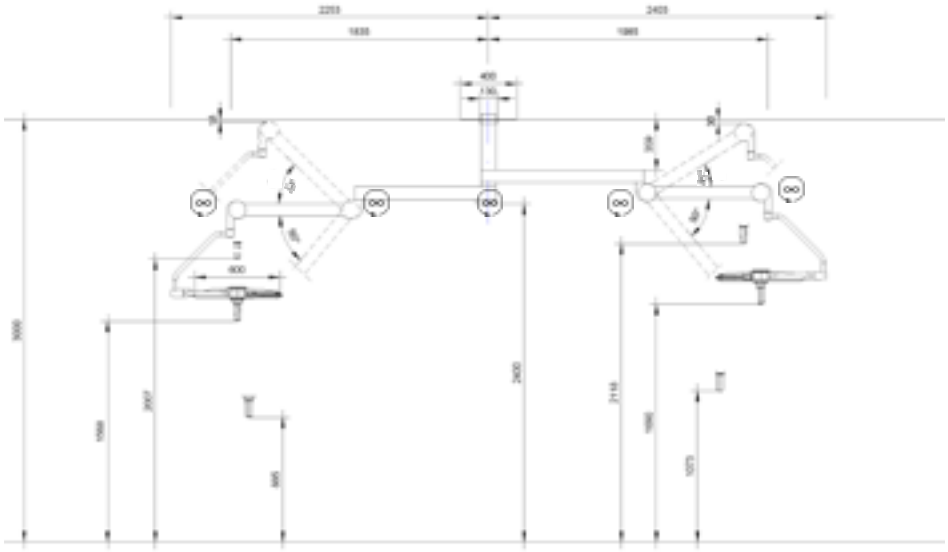
Triple combination with monitor holder



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. 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. 105750** medifa handle adapter sterile control

Accessories

medifa handle adapter
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 with one medifa handle standard
- 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 with one medifa handle standard
- Camera module 4K and receiver module 4K
- DVI-D connector
- 20x optical zoom, 12x digital zoom
- IR remote control

Models and accessories

medifa H!Light wired 4K
Art.-no. 103600 with one medifa handle standard
- Camera module 4K with switchover to HD, suitable for any infrastructure
- DVI-D connector
- 20x optical zoom, 12x digital zoom
- IR remote control

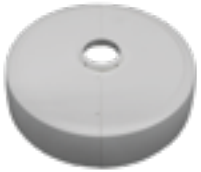
medifa H!Light
Art.-no. 100200 without active shadow management
- Also available in a version for low ceilings
- Standard spring arm
- Power supply 100 ~ 240 V AC oder 24 V DC
- Light head with single yoke and camera prep. wireless

medifa H!Light
Art.-no. 100400 with active shadow management
- Also available in a version for low ceilings
- Standard spring arm
- Power supply 100 ~ 240 V AC oder 24 V DC
- Light head with single yoke and camera prep. wireless

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

Accessories



Cover 590
Art.-no. 105095
- Solo canopy
- 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

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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.

CE

Made in Germany