

SIMEON BusinessLine Great Light. Great Value.



PUSHING TECHNOLOGY TO EXCELLENCE

# SIMEON BusinessLine – The new Sim.LED 700, 500 and 450 good light for any OR

SIMLED 700 SC

With its BusinessLine, SIMEON has developed a completely new light range, with which we are opening up an entirely new market segment for the SIMEON brand, since the BusinessLine brings technological excellence to any OR in the world. The BusinessLine completes SIMEON's product portfolio. In the future, there will be no limits to the combinations of small Sim.LED 450, medium-sized Sim.LED 500 and large Sim.LED 700 surgical lights in single and multi-color, with and without cameras. SIMEON's BusinessLine offers the perfect light for every OR situation and every user. SIMEON offers trendsetting light and system solutions that can be retrofitted easily and without special preparation. This includes, for example, the wireless equipping of your surgical lights with cameras.





# SIMEON BusinessLine Sim.LED 700, 500, 450 – clear advantages

The newest multi-color or single-color LEDs, the patented reflector technology, and the arrangement of the LEDs in a unique design provide more light without shadows. BusinessLine lights provide optimal illumination for conducting operations.

#### High-end materials:

- Use of aluminum and safety glass
- Aluminum light head as ideal heat sinks
- Optimal heat management
- Ideal laminar air flow conditions
- Intelligent LED technology: patented Sim.POD reflector

\* Available starting 3rd quarter/2018

#### Wireless solution

- Wireless Sim.CAM HD and 4K\*, easy replacement and retrofitting of existing surgical lights
- Sim.LED mobile lights with removable battery

#### Cost effectiveness

- Very long life time > 60,000 h
- Exceptional energy efficiency, low power consumption
- Optimal heat management

Sim LED 500 SC

Highest level of hygiene

## NEW:

 my.GRIP: sterile control of two operating functions in parallel and directly on the sterile handle

#### Intelligent solutions

- Innovative Sim.FLEX suspension system
- All surgical lights ready for Sim.CAM HD and Sim.CAM 4K
- my.LED: personalized settings can be simply saved and called up at the press of a button

# Cutting-edge LED technology. Revolutionary design. Absolutely high-end.

Patented reflector technology

- Sim.POD: three high-performance LEDs of the latest generation, positioned in the center of a high-gloss aluminum reflector
- sun.LED: The combination of LED and reflector achieves a constantly high color rendering index Ra > 96 in every color temperature setting, with 3,500 K, 4,000 K, 4,500 K, 5,000 K as well as 5,500 K.

#### Shadow-free light

 Reflector Shadow Resolution System (RSRS) for a unique light quality: large light-emitting surface, shadow-free light, for ideal illumination entirely without sensor systems or automatic adaptation of the light values

#### Long life time

- > 60,000 h
- 5-year warranty for Sim.PODs
- Guaranteed life time thanks to ideal heat management

#### Design

 The light body and suspension system, made of light aluminum, allow for a fast and smooth positioning.

#### User-friendly

 my.LED: personalized settings can be simply saved and called up at the press of a button

#### NEW:

 my.GRIP: sterile control of two operating functions in parallel and directly on the sterile handle

## 5-year warranty for Sim.PODs

#### Environmentally friendly

- Highest energy efficiency
- Minimal heat build-up

SIMEON BusinessLine – better hygienic conditions and user-friendly operation

#### Better hygiene thanks to

high-end materials - aluminum and safety glass

Sim.LED 700 MC

- Aluminum light head as the ideal heat sink
- Scratch-resistant safety glass guarantees an optimal light transmittance throughout the entire lifecycle of the lights – no plastic effect!



#### User-friendly thanks to: Intuitive operation

- On the cardanic
- On the wall control
- On the sterile handle
- The light intensity, light field and color temperature can all be easily set using the cardanic or wall control
- For endoscopic interventions, the Sim.BIANCE mode is available
- my.LED: personalized settings can be simply saved and called up at the press of a button

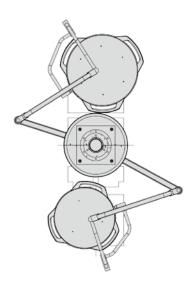


#### NEW:

User-friendly thanks to my.GRIP – One Handle. Personalized Options. SIMEON Multifunction Handle

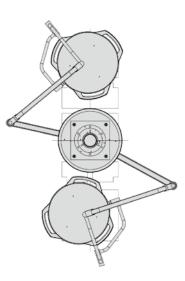
- Sterile control of two operating functions in parallel and directly on the sterile handle
- Up to 12 freely selectable combinations
- Additional step for optimal hygienic conditions
- Easily programmable using cardanic control panel

# SIMEON BusinessLine – Great Light. Great Value.



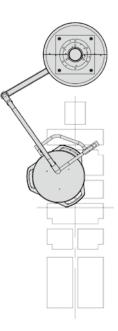
#### General surgery

A combination of the BusinessLine Sim. LED 700/500 is ideally suited for this application.



#### Emergency rooms

A combination of the BusinessLine Sim.LED 500/500 puts the surgical field in its true light.



#### Induction

The BusinessLine Sim.LED 450 is ideally suited for this purpose.

There are no limits to the combinations of small Sim.LED 450, medium-sized Sim.LED 500 and large Sim.LED 700.



Sim.LED 450/450



Sim.LED 450/500



Sim.LED 500/500

SIMEON BusinessLine	Sim.LED 700 MC/SC	Sim.LED 500 MC/SC	Sim.LED 450 MC/SC
Central illumination intensity at a distance of 1 meter [Ix]	160,000	140,000	120,000
Electronical dimmability from/to [lx]	48,000-160,000	42,000-140,000	36,000-120,000
Color temperature [K]	3,500 – 5,500 [MC] 4,500 [SC]	3,500 – 5,500 [MC] 4,500 [SC]	3,500 – 5,500 [MC] 4,500 [SC]
Focusable field size d10 at a distance of 1 meter [mm]	180 - 300	180 - 290	160 – 230 [MC] 160 – 250 [SC]
Electronic field adjustment	yes	yes	yes
Color rendering index Ra in every color temperature setting	96	96	96
Red rendering index R9	94 [MC]/96 [SC]	94 [MC]/96 [SC]	94 [MC]/96 [SC]
"Skin color" rendering index R13	98	98	98
Illumination depth without refocusing (L1+L2) at 20% [mm]	915 [MC] 875 [SC]	945 [MC] 930 [SC]	925 [MC] 975 [SC]
Illumination depth without refocusing (L1+L2) at 60% [mm]	450 [MC] 420 [SC]	495 [MC] 460 [SC]	510 [MC] 470 [SC]
Light head weight [kg]	18	15	13
Light head power consumption [W]	66 [MC] 62 [SC]	62 [MC] 53 [SC]	51 [MC] 45 [SC]
LED life time [h]	> 60,000	> 60,000	> 60,000
Temperature increase at head height	< 1 °C	< 1 °C	< 1 °C
Light-emitting surface	3320 cm <sup>2</sup>	2360 cm <sup>2</sup>	1650 cm <sup>2</sup>
Sim.CAM	optional	optional	optional
Approval	CE	CE	CE

Tolerance ±10 %; technical specifications are subject to change







Sim.LED 700/450



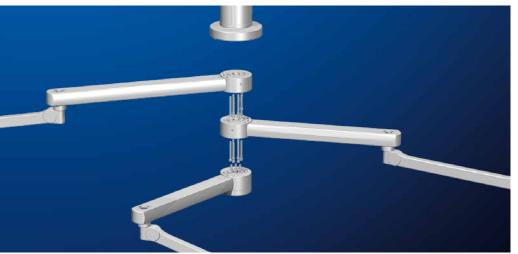


Sim.LED 700/500

Sim.LED 700/700

Exemplary OR solutions for surgical lights, suspension systems, cameras, monitors ...







#### Sim.FLEX

Maximum flexibility for OR planners: With an extension arm length of up to 2,000 mm, our light systems are also easy to use in hybrid ORs. And with Sim.FLEX, it is possible to expand the system by adding mounting arms at any time – even after installation.

#### Standard suspension system

Easy positioning of the products is an important advantage of the suspension system. Using the standard suspension system, this is possible in single up to quadruple combinations.





#### Controls

SIMEON BusinessLine OR lights can be simultaneously controlled via wall control or directly at the cardanic control.



#### Sim.LED mobile lights

- Mobile and flexible: OR lights with an excellent performance
- Mobile stand with one or two batteries
- Ready for use 24/7
- The only mobile wireless solution on the market



# The new Dimension in Video Images

# NEW: Sim.CAM 4K Wireless\* –

ED 500 MC

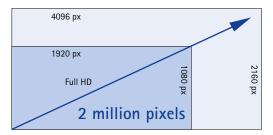
## More Details. Better Treatment.

Fascinating images—with clear, sharp contours and strikingly improved color. Details that Full HD was unable to depict are now clearly and distinctly visualized in 4K ULTRA HD. If needed, a cable version of Sim.CAM 4K as a separate arm solution is available.

Sim.CAM 4K and Sim.CAM 4K Wireless*		
Resolution	8,847,360 pixels	
4K Ultra HD	4096 x 2160	
Zoom	12x optical 12x digital	
Image positioning	> 360°, mechanically and electronically	
Video outputs	HDMI 1.4, DVI	

Technical specifications are subject to change

\* Available starting 3rd quarter/2018



Use 4K ULTRA HD in surgical settings for detail-optimized imagery. The high image quality offers you finely structured images with amazing details and thus a brilliant visual representation.

# Wireless

# NEW: Sim.CAM HD Wireless – More Details. Great Flexibility.

With the new Sim.CAM HD Wireless you obtain a premium HD camera that sends images to your monitor without additional wiring, thanks to the new wireless technology. The integrated HD camera transfers all data sharply and precisely from every selected position. If needed, it is also available as a cable-based solution. Sim.LED 450 MC

Sim.CAM HD and Sim.CAM HD Wireless		
Resolution	2,000,000 pixels	
Full HD	1,920 x 1,080	
Aspect ratio	16:9	
Zoom	10x optical 12x digital	
Image positioning	> 360°, mechanically and electronically	
Video outputs	HDMI, DVI	

Technical specifications are subject to change



Sim.SCREEN – keep your images in view





Imited 450 MC





#### Sim.Screen 32" monitor holder

Despite the fact that commercial monitors are larger and heavier, the mount's new design guarantees a simple and easy use.

#### Sim.SCREEN

Sim.SCREEN is also available as a double monitor holder.





#### NDS Expand OR

- Medically-approved full HD video recorder and streamer
- Bidirectional audio and video streaming
- Simultaneous control of the NDS Expand OR from the device or through the PC software



#### Sim.INTERFACE

With the help of the Sim.INTERFACE, all integration systems that are available on the market can control our products.

# **Excellent solutions are sustainable!**

SIMEON is a dynamic company enjoying sustained growth. We are equally interested in safeguarding the future of our company as we are in safeguarding the future of our environment. For this reason, the concept of sustainability is also reflected in our environmentally-oriented, resource-conserving company policy.

We save energy through the use of photovoltaic systems, we heat and cool using geothermal boreholes, and we use the heat from our compressors for heat recovery. With our products, we rely on high-grade, recyclable materials such as glass and aluminum instead of plastic. As a result, our products are especially durable and many of our pre-fabricated parts can be reused. In our production, any shavings generated are recycled and our product packaging is also reused when possible.

We make a great effort to reduce emissions and save energy - because the protection of our environment is one of our overriding company goals.





# Excellence in medical care

For over 15 years now, LED technology pioneer SIMEON has provided complete, future-oriented top products at a cost-to-benefit ratio which is unparalleled across the world. Thanks to their special design and unique reflector technology, SIMEON's innovative solutions ensure ideal lighting conditions and cover all demands for hygiene and function in the medical field. SIMEON products are made in Germany and undergo certified production with continuous quality control.

Not all accessories/options shown are available in the U.S.A.



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