

## DATA SHEET

### Double Head Operating Light with Camera and Wall Mounted Medical Monitor

Model : LD20.24S



Inspital LED operating lights are designed to meet all lighting and viewing requirements of operating theatres. Powerful LED technology with high-tech camera option helps the surgeons to operate and view the surgery area clearly. LED lights can be adapted in any size of operating theatres including large hybrid types with variety of models & combinations.

#### STANDARDS

**Classification** Class 1 (MDD 93/42 EEC)

**EU Conformity** CE

**Standards** EN 60601-1, EN 60601-2-41

#### PACKAGE DIMENSIONS

100x120x150 cm - 180 kg

#### CAMERA SPECIFICATIONS

Full HD Analog Camera

1/3" type CMOS sensor

Full HD 1920x1080p

10x optical zoom

HDMI video output

AutoFocus

#### MATERIAL SPECIFICATIONS

**Lamp Head** Static Painted (RAL 9002) Aluminum / Polycarbonate

**Joint Handle** Static Painted (RAL 9002) Aluminum

**Sterile Handle** Plastic (ABS + PC)

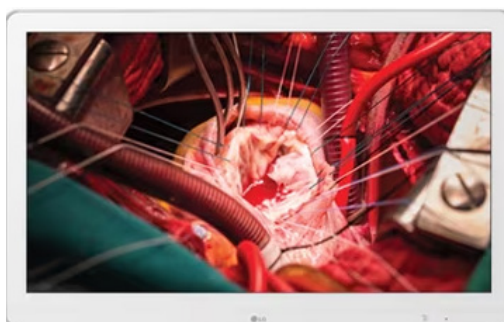
The handle should be sterilized at 134 °C between 3.5-5 minutes and at 121°C during 10 minutes.

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TECHNICAL SPECIFICATIONS	MAIN LIGHTHEAD	SATELLITE LIGHTHEAD
Diameter of lighthouse with outer handle	Ø670 mm	Ø490 mm
Illumination power, at 1 m	160.000 Lux	120.000 Lux
Color temperature (adjustable)	3000 K - 5000 K	3000 K - 5000 K
Color rendering index, Ra CRI	96%	96%
Dimming Range (adjustable)	% 1 – 100	% 1 – 100
Light Field Diameter d10	24 - 36 cm/9.5"-14.2"	25 - 27 cm/9.45"-10.63"
Light Field Diameter d50	13 - 28 cm/5.1"-11"	12 - 14 cm/4.7"-5.5"
Number of LED modules	60	28
Lifetime of LED	>60.000 h	>60.000 h
IP	IP 43	IP 43
Total power consumption (max)	130 W	55 W
Degree of turbulence(standard value 37.5% max.)	29%	25%
Irradiance at nominal illuminance	510 W/m2	430 W/m2
UV radiation intensity	0,2 W/m2	0,2 W/m2
Depth of the volume of light L1 + L2 at 20%	130 cm / 51.2"	185 cm / 72.8"
Input Voltage	220-240 VAC / 50-60 Hz	220-240 VAC / 50-60 Hz
Depth of Lightning (L1+L2) at 60%	76 cm/30"	92 cm/36.2"
Weight of lighthouse	13.2 kg	9 kg
Additional options	Wall Control Panel, UPS, Camera	-
Number of lighthouse	1	1



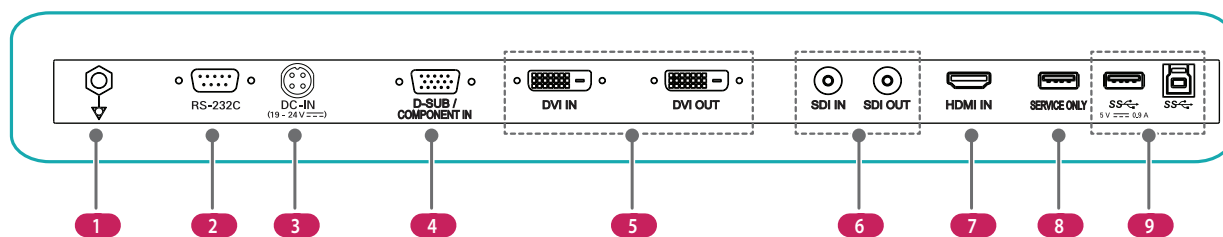
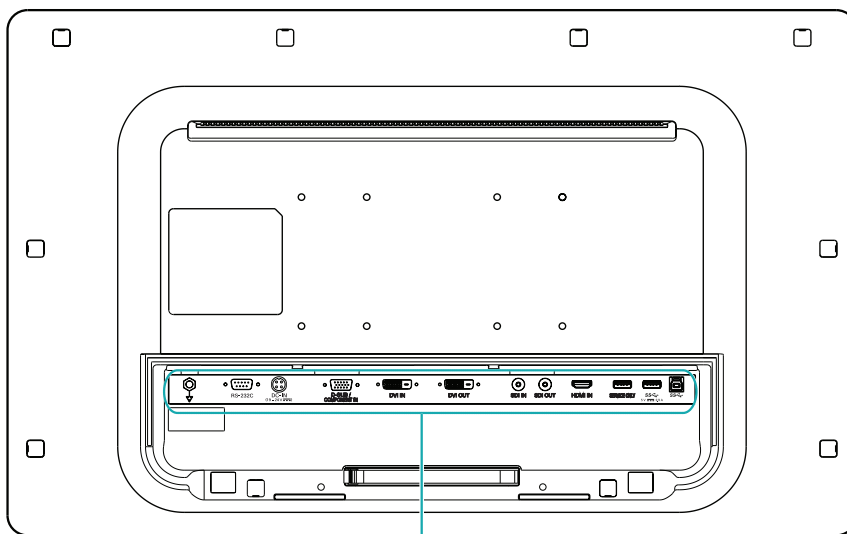
## MEDICAL MONITOR

Backlight Technology	LED
Panel Type	IPS
Screen size	27"
Resolution	Full HD (1920 x 1080)
Display ratio	16:9
Angle of vision	178°
Dimensions	597.89 (H) x 336.31 (V) x 62.2 mm
Input	HDMI x 1 3G-SDI x 1 DVI-D x 1 D-sub x1
Output	DVI-D x1 3G-SDI x1
Weight	7.7 kg

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<b>1</b>	<b>Potential Equalization Conductor</b> • Connect an equipotential plug.
<b>2</b>	<b>RS-232C</b> • Connect the RS-232C terminal with an external device to control the monitor.
<b>3</b>	<b>DC-IN (19 - 24 V)</b> • Connect an AC/DC adapter. • The output of the enclosed adaptor is 19 V. • The product is designed to be used with adaptors that have an output ranging between 19-24 V. Please use the adaptors of medical standards.
<b>4</b>	<b>D-SUB IN / COMPONENT IN</b> • Input an analogue signal.
<b>5</b>	<b>DVI IN / DVI OUT</b> • Receives or transmits digital video signals.
<b>6</b>	<b>SDI IN / SDI OUT</b> • Receives or transmits digital video signals.
<b>7</b>	<b>HDMI IN</b> • Input digital video signal. • Using a DVI to HDMI / DisplayPort to HDMI cable may cause compatibility issues. • Use a certified cable that displays the HDMI logo. The screen may not appear or a connection error could occur if a non-certified cable is used. • Recommended HDMI cable types - High speed HDMI®/™ cable - High speed HDMI®/™ Ethernet cable
<b>8</b>	<b>SERVICE ONLY</b> • This USB port is used only for service.

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**SS ↔ 5V ⎓ 0.9 A / SS ↔ (USB Connector)**

- Used for HW Calibrator (Optional Accessory) connection.
- Connect peripheral device to the USB input port.
- A keyboard, mouse, or USB storage device can be connected.
- To use USB 3.0, connect the A-B type USB 3.0 cable to the PC.

**CAUTION**

Cautions when using a USB storage device.

- A USB storage device which has a built-in automatic recognition program or uses its own driver might not be recognisable.
- Some USB storage devices may not be supported or may not work properly.
- It is recommended to use a USB hub or hard disk drive with power supplied. (If the power supplied is not enough, the USB device may not be detected properly.)

**NOTE**

All signal out terminals (SDI, DVI, etc.) output a signal when the power switch of the monitor is on. When the power switch is off, no signal is outputted.

- This monitor supports the \*Plug and Play feature.

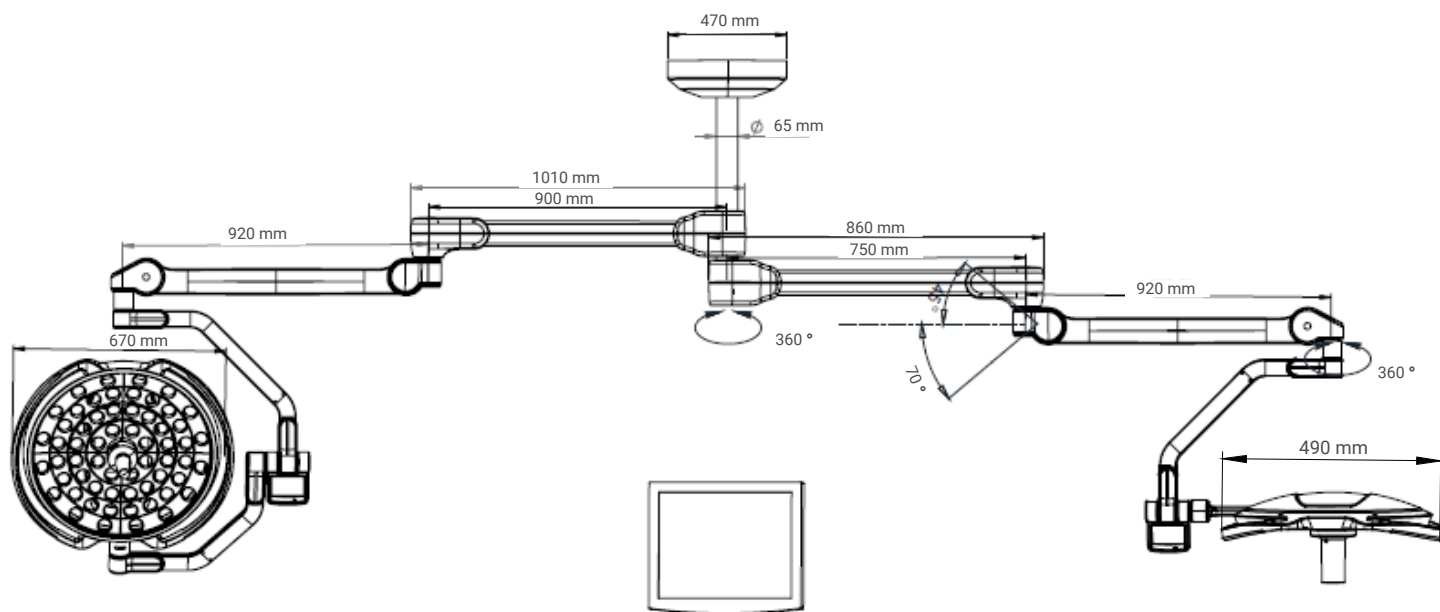
\*Plug and Play: A feature that allows you to add a device to your computer without the need for physical device configuration or user intervention.

- The standard of the DVI and the SDI output terminals for transmitting a screen

DVI OUT: Connect a up to 5-meter cable to transmit a duplicated screen to a monitor.

SDI OUT: Connect a 100-meter cable (BELDEN 1694) to transmit a duplicated screen to a monitor.

## TECHNICAL DRAWING



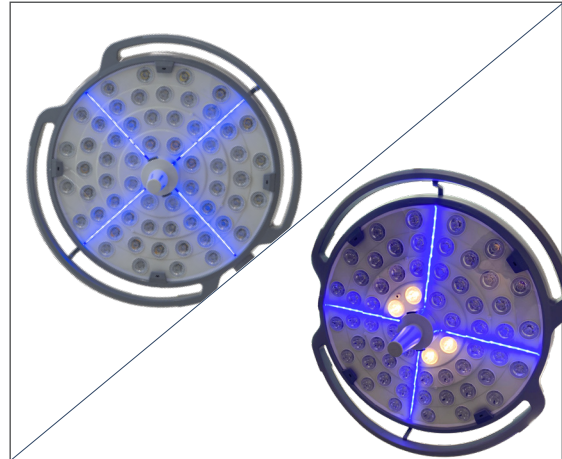
Note:  $\pm 25$  mm tolerance is given for metric measurements and  $\pm 5^\circ$  tolerance is given for angle measurements.

## OTHER SPECIFICATIONS



**\* Active Illumination Control (AIC)**

Inspital LED light technology provides the best illumination, even when surgeons are blocking the LEDs. The loss of illumination when certain LEDs are obstructed is automatically compensated by the AIC system.



**\* StandBy Mode/ Endo Light Mode**

Stylish blue LED strips in standby mode. Endo light mode can be activated with one touch, switching immediately and ready for endoscopic procedures.



**\* Laser Positioning Guide**

Each light head has a laser guide to easily and efficiently position the lighting center.

**\* Auto Light Feature**

When the Auto Light feature is activated, the light intensity at the center remains constant at any height, angle or obstacle using the PID method.

\* This feature is only available in the main lighthead.



**Touch Screen Control Unit**

User friendly 4.3" LCD touch screen unit is used to easily control all functions by tapping and swiping the icons.