SCHOTT Solidur® Mini LED



The world's smallest fully autoclavable family of HB LEDs for Medical and Dental Devices



Ultra small, ultra robust, ultra brilliant: SCHOTT Solidur® Mini LED

Product Information

SCHOTT Solidur® Mini LEDs are the world's smallest hermetic and therefore fully autoclavable High Brightness (HB) LEDs available in the market today. Owing to their gas-tight housing design based on inorganic, non-aging materials, the Mini LEDs are extremely robust, resistant to chemicals, corrosion and pressure – even at varying temperatures.

This makes the SCHOTT Solidur[®] Mini LEDs a highly reliable light source, performing efficiently over a long time period and over thousands of autoclaving cycles. The Mini LEDs can easily be incorporated into medical devices as they are available as a connec-torized format as well as in SMD design.

Applications

The SCHOTT Solidur® Mini LEDs are suitable for applications in medical and dental lightening, especially for devices that need autoclaving. Typical applications include dental turbines, cameras, UV curing devices, endoscopes, laparoscopes, laryngoscopes, otoscopes, surgical equipment and many more. With the Mini LEDs, doctors can bring the light source close to the patient and significantly increase the illumination (light situation) of a difficult to reach area during surgical operations or medical check-ups.

Thanks to their robust and miniaturized design, Solidur® Mini LEDs enable medical devices that in the past had to function without light due to design limitations or autoclaving requirements. With the Mini LEDs, medical device designers can now implement an autoclavable light source directly at the tip of the device.



Surgical instrumentste



Mirrors



Otoscopes



Camera



Turbines



Hand tools



Endoscopes



Tools



Ophthalmoscopes



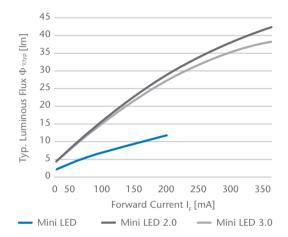
UV devices

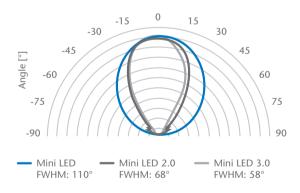


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Parameter	Mini LED	Mini LED 2.0 NEW	Mini LED 3.0 NEW
Color temperature CCT	5.000 - 6.000 K	4.000 - 6.000 K	4.000 - 6.000 K
Color rendering index R _a	> 90	> 92	> 92
Forward current I _F max.	100 mA	350 mA	350 mA
Luminous flux ϕ_v	7 lm at 100 mA	16 lm at 100 mA 42 lm at 350 mA	16 lm a 100 mA 38 lm at 350 mA
Viewing angle (FWHM) $\Theta_{_{ m V}}$	110°	68°	58°
Other colors/wavelengths		available	available
Size Ø	2.3 mm	2.3 mm	2.0 mm
Height h	1.7 mm	1.7 mm	1.4 mm
Autoclavable	yes	yes	yes







Customized color temperature

Advantages

- SCHOTT Solidur® Mini LEDs can be adapted to your application and requirements:
 - Choose your light color
 - Define your color temperature and CRI
- Define your radiation pattern
- Customize your optical properties like luminous flux and lens
- Fully autoclavable, highly reliable light source
- Small size
- Easy to integrate due to electrical interface:
 - Surface Mount Design (SMD)
 - Pigtail
 - Connectorized/Through-hole
- Good thermal management
- Non-aging glass lens with high chemical resistance

About SCHOTT

SCHOTT is an international technology group with more than 130 years of experience in the areas of specialty glasses and materials. More than 600 scientists and engineers are working for and with SCHOTT customers all over the world, while setting the pace by developing new, cutting edge technologies for the requirements of today and tomorrow.

The SCHOTT Group with a workforce of about 15,400 employees maintains close proximity to its customers with manufacturing and sales units in 34 different countries.

SCHOTT AG

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