

TOP-LINE series

Bar light

- >> extremely versatile (brightfield, darkfield...)
- >> compact housing
- >> 3 standard lengths available:
2TE (113mm), 3TE (169mm) and 4TE (225mm)
- >> well-priced design
- >> simple and versatile mounting
- >> for continuous, switched and pulsed operation
(depending on type)



TOP-LINE-2TE white and
TOP-LINE-3TE red



Darkfield arrangement
with 4 TOP-LINE

Technical specifications



Housing	Aluminium, black or natural anodised
Front cover (within the scope of supply)*	-
Total weight	2TE: approx. 105g; 3TE: approx. 160g; 4TE: approx. 190g
Operating / ambient temperature	max. 50°C recommended
IP protection class	depending on the version
Connector	M8 plug (4-pin)**
Supply voltage***	24VDC type or 12VDC type: 24VDC resp. 12VDC SC type: For use in conjunction with a controller
Number of LEDs	2TE: 16; 3TE: 24; 4TE: 32
LED lifetime	The LED lifetime of our lights is very high, but depends on many different factors such as ambient temperature, current load, and so on. Further information is available in the Technical information LED lifetime .

* more information and further front covers see section Accessories

** Cable not included in the scope of supply

*** more information see section Operating modes

Characteristics

Colour *	LED characteristics		typical characteristics per light								
	Wavelength (approx.)	Viewing angle	Current demand (24V type) ** / constant current max. (SC type) [mA]			Pulse current max. (SC type) *** [mA]			Intensity **** [W/m ²]		
			2TE	3TE	4TE	2TE	3TE	4TE	2TE	3TE	4TE
red	617nm	30°	70	105	140	200	300	400	25	28	31
red	617nm	60°	70	105	140	200	300	400			25
red	635nm	120°	50	75	100	200	300	400			
white	6500K	120°	50	75	100	200	300	400	4	6	6
SH white	6500K	120°	160	240	320	1200	1800	2400	14	20	
IR	850nm	30°	65	95	130	800	1200	1600	22		
IR	850nm	50°	65	95	130	800	1200	1600		20	
IR	850nm	120°				800	1200	1600			
blue	470nm	20°	85	125	170	320	480	640	5	5	5
UV	375nm	120°	80	110	140				7	7	7

* other colours and types from UV to infrared on request

** stated current values of the 24V types should be considered approximate values

*** depending on the strobe conditions, recommended maximum values for a flash time of 1ms

**** approximately data measured in DC mode; Measuring distance 100mm



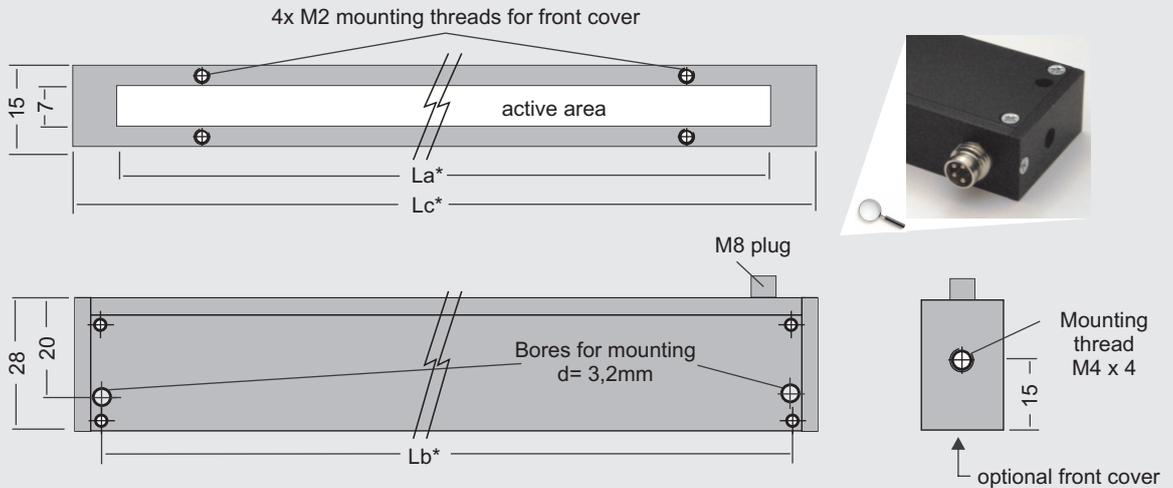
Safety note!

LED light systems can produce very intense radiation, which may possibly damage the eyes on improper use. Do not look directly into the light beam with unprotected eyes! Use eye protection!

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Bar light

Dimensions



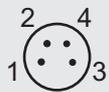
* The length specification TE describes the single unit of 56mm of the active LED-PCB.

Consequently following lengths result for La/Lb/Lc:

2TE = 113/119/129mm | 3TE = 169/175/185mm | 4TE = 225/231/241mm

PIN assignment connector

M8 plug 4-pin
(Front view on housing)



24VDC type

PIN	Colour	Function
1	brown	+ 24V
3	blue	-

12VDC type

PIN	Colour	Function
2	white	+ 12V
3	blue	-

SC type

PIN	Colour	Function
4	black	+
3	blue	-

Operating modes

24VDC type / 12VDC type

The lights are designed depending on the version for continuous operation at 24VDC or 12VDC.

The following operating modes are possible:

- DC operation at an appropriate power supply with 24VDC or 12VDC
- Switched operation with a matching power supply e.g. via PLC, opto-relay or controller (GS or SC series)
- Brightness-controlled operation via controller (GS or SC series) in conjunction with suitable power supply
- Pulsed mode via controller (GS or SC series) in conjunction with suitable power supply. The LED current can be increased in pulse mode up to a factor of 2 to 3.

SC type

For pulsed, switched or brightness-controlled operation, the lights are also available as optimized SC versions. They can be used in combination with our controllers of the GS and SC series and provide optimized and maximum current flow, especially in pulsed operation. We will assist you in selecting the right components.

Application notes

Incident light application



Darkfield application



technical changes reserved

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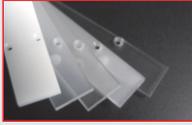
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IMAGING LIGHT TECHNOLOGY
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Accessories



Front covers / diffusers

Through the use of different diffuse front covers, the optical characteristics of the illumination can be changed.

More information can be found in the **Technical information Front materials**.



Mounting plate

With the mounting plates, several TOP-LINE lights can be connected together, e.g. for darkfield applications.



Tilting bracket

For variable adjustment of the tilt angle of the light. Combination of multiple tilting brackets is also possible.



Cylindrical lens

With the optionally available lens the light can be focused to a narrow strip with increased intensity.



Slit diaphragm

By the use of the slit diaphragm, the light output of the TOP-LINE lights are narrowed.