

# LENS BAR LIGHT

## LL-600

Strong, direct, exchangeable-optics illumination of distant surfaces. Allows the use of Dark and Bright Field sources depending on the distance and angle towards the scanned object.



3 TYPES OF EXCHANGEABLE OPTICS

ANALOGUE REGULATION OF LIGHT INTENSITY

INTEGRATED TRIMMER

## LIGHT OPERATING MODES

### PERMANENT ILLUMINATION MODE

This light is designed for both the permanent and light-triggering mode. For permanent illumination bring the voltage of 12-28 V to the pin number 4 (black wire). The light is ON during the time when the 24 V EN signal is activated. Use a PCL, camera or another binary signal source. For the light intensity control, please see the text below.

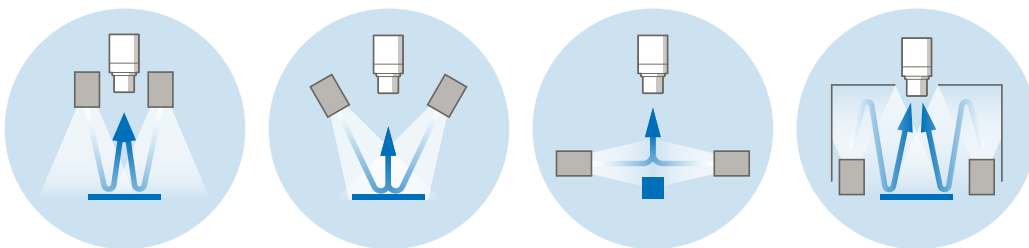
### LIGHT TRIGGERING MODE

Light triggering mode saves energy and extends the lifetime of the light. Trigger operation mode is recommended when a parallel operation of 2 or more lights might affect the quality of the acquired image. To start using a triggering mode, bring the pin number 4 (black wire) to a 12-28 V signal. The light is ON when a voltage signal is present at pin number 4 then. Use a PCL, camera, or another binary signal source for triggering. For the light intensity control, please see the text below.

### LIGHT SOURCE INTENSITY REGULATION

The light intensity might be regulated by an internal trimmer, analogue voltage, PWM signal or an external controller. In case of using an analogue signal, the light intensity might be regulated in a linear way at a pin number 2 by the voltage span of 2.7 -10 V. Bringing a voltage of 12-28 V to the pin number 2, the light works at its maximum intensity. The maximum PWM frequency is  $\leq 40$  kHz.

## WAYS OF USE



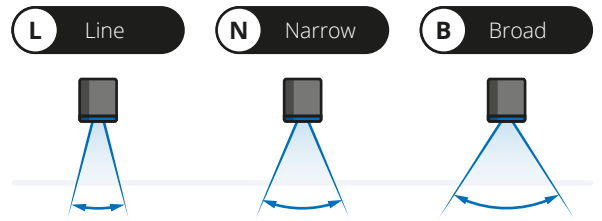
## CONFIGURATION

example of the ordering code

LL - 600 B - L  
 Linear Light    Light Length    Wavelength    Optics

## OPTICS

different types of light optics



## CONFIGURATION

Model	Wavelength [nm]	Light Length [mm]
LL-600W	CTR 5000 k	600
LL-600IR	850	600
LL-600R	625	600
LL-600G	528	600
LL-600B	470	600

## ELECTRIC PARAMETERS

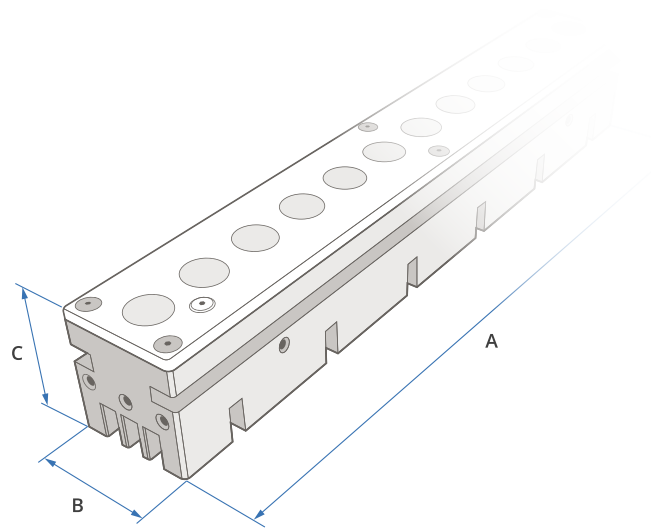
Model	LL-600W	LL-600IR	LL-600R	LL-600G	LL-600B
$U_n$ Voltage Span	17-28 V	17-28 V	17-28 V	17-28 V	17-28 V
$U_{jm}$ Nominal Voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
$I_{jm}$ Nominal Current	2.1 A	2.1 A	2.1 A	2.1 A	2.1 A
$P$ Input	50.4 W	50.4 W	50.4 W	50.4 W	50.4 W
$U_{trig}$ Trigger Voltage	$\geq 10 - 24 V$ <sup>2</sup>	$U_{EN}$ Analogue Dimming $\geq 2.7 .. \leq 10 V$ <sup>2</sup>			
$I_{trig}$ Trigger Current	2.3 mA <sup>2</sup>	$I_{EN}$ PWM Dimming $> 10 V .. \leq 24 V$ <sup>1</sup>			

<sup>1</sup> PWM maximal rate is  $\leq 40$  kHz    <sup>2</sup> EN (Enable) trigger signal values, M8 connector – pin number 4

## DIMENSIONS & WEIGHT

<b>A</b> Length [mm]	600
<b>B</b> Width [mm]	45
<b>C</b> Height [mm]	48
<b>Weight [g]</b>	2 504

**i** For more details please see our 2D drawings.

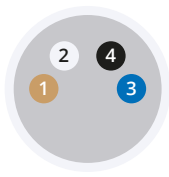


## TECHNICAL DATA

IP Category: <b>IP60</b>	Protection Category: <b>III</b>	Ambient Temperature: <b>-20 - +40 °C</b>	Isolation Resistance: <b>500 V</b>	Housing Material: <b>Aluminium alloy</b>
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## CONNECTOR M8-4PIN ASSIGNMENT

Light connector front view



1	Brown	+	+24 V
2	White		EN
3	Blue	-	0 V
4	Black		EN

...

2  **ENABLE**

Light intensity regulation: analogue signal 2.7-10 V or PWM  $\leq$  40 kHz

...

4  **ENABLE - permanent illumination or trigger signal (+24 V)**

Light intensity regulation by an internal trimmer

## ACCESSORIES

✓ Angular Cable M8-4PIN (5 m)

✓ Optics from **Optional Accessories**

## OPTIONAL ACCESSORIES

+ Straight Cable M8-4PIN (5 m)

+ Line optics

+ Broad optics

+ Narrow optics

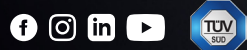
+ Controller **Smart Light CT-SL4D**

+ Controller **CM-01**

+ IP Category **IP67**

 **SmartView**

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