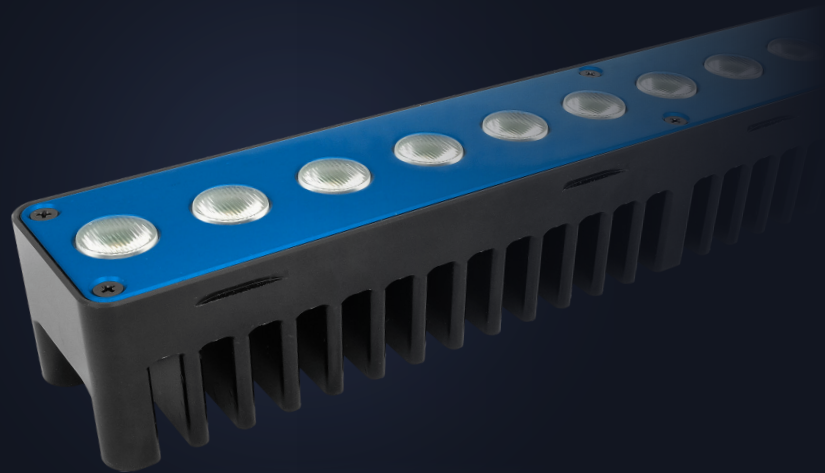


# LENS BAR LIGHT

LL2-600-S-67

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



IP67 RATED PROTECTION

ANALOGUE REGULATION OF LIGHT INTENSITY

## 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.

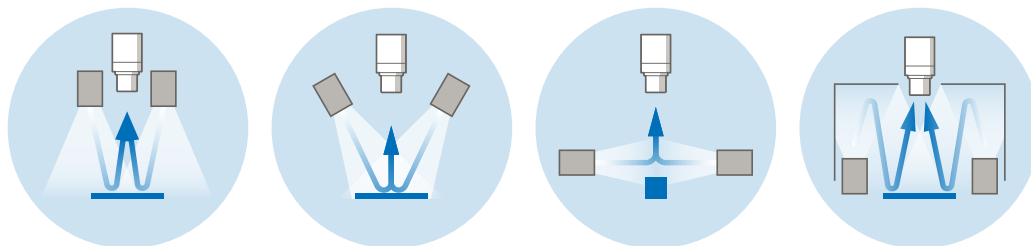
### STROBE MODE

Strobe function significantly multiplies the maximum intensity of the light. The strobing function saves energy, extends the light lifetime and in many cases improves the stability of the entire inspections system. Pin number 2 (white wire) of the M8 connector is used to activate the strobe function. The maximum strobe pulse time is 470 ms, while the light idle time must be at least 3 times longer. Please do not use a trigger mode during strobing function, do not bring a voltage to the pin number 4.

### LIGHT SOURCE INTENSITY REGULATION

The light intensity might be regulated by an 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



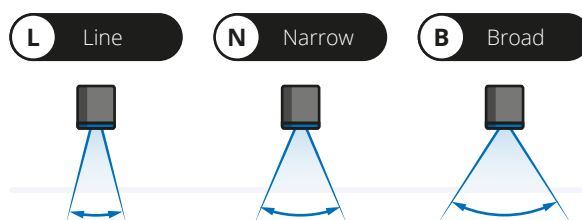
## CONFIGURATION

example of the ordering code

|              |   |              |            |   |          |   |             |   |             |
|--------------|---|--------------|------------|---|----------|---|-------------|---|-------------|
| LL2          | - | 600          | <b>B</b>   | - | <b>L</b> | - | <b>S</b>    | - | <b>67</b>   |
| Linear Light |   | Light Length | Wavelength |   | Optics   |   | Strobe Mode |   | IP Category |

## OPTICS

different types of light optics



## CONFIGURATION

| Model            | Wavelength [nm] | Light Length [mm] | Risk Group (EN 62471) |
|------------------|-----------------|-------------------|-----------------------|
| LL2-600W-X-S-67  | CTR 5000 k      | 600               | RG 0                  |
| LL2-600IR-X-S-67 | 850             | 600               | RG 1                  |
| LL2-600R-X-S-67  | 625             | 600               | RG 1                  |
| LL2-600G-X-S-67  | 528             | 600               | RG 1                  |
| LL2-600B-X-S-67  | 470             | 600               | RG 2                  |

## ELECTRIC PARAMETERS

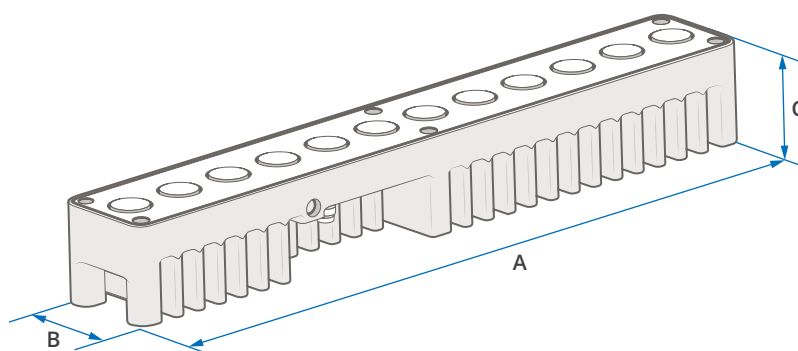
| Model                      | LL2-600W                      | LL2-600IR                  | LL2-600R            | LL2-600G                  | LL2-600B                              |
|----------------------------|-------------------------------|----------------------------|---------------------|---------------------------|---------------------------------------|
| $U_n$ Voltage Span         | 17-28 V                       | 17-28 V                    | 17-28 V             | 17-28 V                   | 17-28 V                               |
| $U_{jn}$ Nominal Voltage   | 24 V DC                       | 24 V DC                    | 24 V DC             | 24 V DC                   | 24 V DC                               |
| $I_{jn}$ 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> | $I_{trig}$ Trigger Current | 2.4 mA <sup>2</sup> | $I_{EN}$ PWM Dimming      | $> 10 V \dots \leq 24 V$ <sup>1</sup> |
| $U_{str}$ Strobe Voltage   | 3 - 24 V <sup>3</sup>         | $I_{str}$ Strobe Current   | 3.6 mA <sup>3</sup> | $U_{EN}$ Analogue Dimming | $\geq 2.7 \dots \leq 10 V$            |

<sup>1</sup> PWM maximal rate is  $\leq 40$  kHz <sup>2</sup> EN (Enable) trigger signal values, M8 connector - pin number 4 <sup>3</sup> Driving voltage and current M8 connector - pin number 2

## DIMENSIONS & WEIGHT

|                      |       |
|----------------------|-------|
| <b>A</b> Length [mm] | 600   |
| <b>B</b> Width [mm]  | 45    |
| <b>C</b> Height [mm] | 48    |
| <b>Weight [g]</b>    | 1 505 |

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

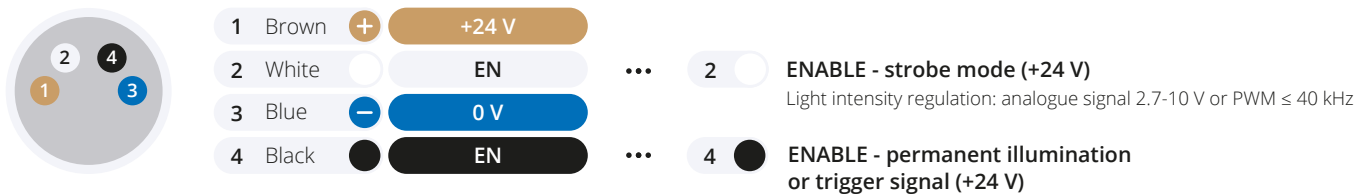


## TECHNICAL DATA

|                          |                                 |                                          |                                    |                                          |
|--------------------------|---------------------------------|------------------------------------------|------------------------------------|------------------------------------------|
| IP Category: <b>IP67</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> |
|--------------------------|---------------------------------|------------------------------------------|------------------------------------|------------------------------------------|

## CONNECTOR M8-4PIN ASSIGNMENT

Light connector front view



## ACCESSORIES

- ✓ Angular Cable M8-4PIN (5 m)
- ✓ Optics Line / Narrow / Broad
- ✓ IP Category IP67

## OPTIONAL ACCESSORIES

- + Straight Cable M8-4PIN (5 m)
- + Controller **Smart Light CT-SL4D**
- + Controller **CM-01**

 **SmartView**

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