

# RING LIGHT

## RL-65-M30.5

Direct lighting for most surfaces. The light is equipped with an integrated internal thread for easy and quick mounting on most lenses.

HOMOGENEOUS LIGHTING

ANALOGUE CONTROL OF LIGHTING INTENSITY

INTERNAL THREAD FOR EASY MOUNTING

INTEGRATED DIGITAL CONTROL OF STROBING PULSES



## 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 10-24 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 10-24 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.

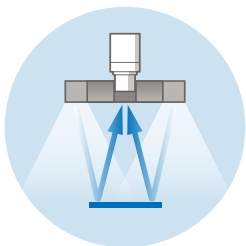
### STROBE MODE

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 4 by the voltage span of 2.7 -10 V. Bringing a voltage of 10-24 V to the pin number 4, the light works at its maximum intensity. The maximum PWM frequency is  $\leq 40$  kHz.

## WAYS OF USE



\*Applies for devices with wavelength UV405, UV395, UV385 and UV365. This type of a light has a source of ultra violet radiation. Avoid direct exposure of eyes and unprotected parts of skin. Install the light in a safe way to avoid accidental or deliberate damage of unprotected human skin by UV light radiation. Mark room/area of use with a warning sign.

## ORDERING CODE

example of the ordering code

RL	-	65	B	-	M30.5
Ring Light		Ø of Active Area	Wavelength		Thread Ø

## CONFIGURATION

## ILLUMINATION INTENSITY

Model	Wavelength [nm]	LED Beam Angle [°]	Thread Ø [mm]	Distance [mm]	Value [lx]
RL-65W	White	80	30.5	100	1 100
RL-65IR	850	90	30.5	200	3 238
RL-65HR	660	90	30.5	300	6 530
RL-65R	625	80	30.5	500	21 580
RL-65G	528	80	30.5		
RL-65B	470	80	30.5		
RL-65UV	405   395   385   365	120	30.5		


## ELECTRIC PARAMETERS

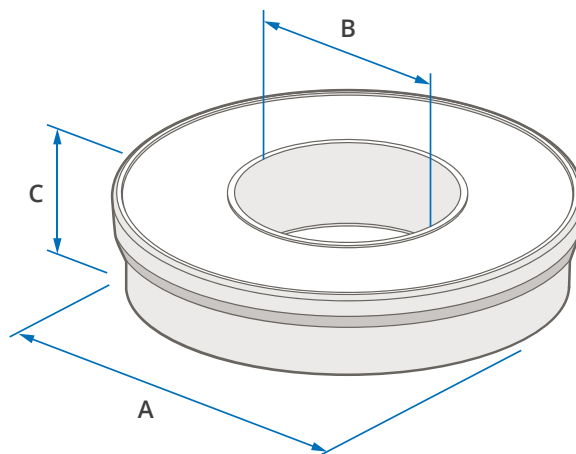
Model	RL-65W	RL-65IR	RL-65HR	RL-65R	RL-65G	RL-65B	RL-65UV
$U_n$ Voltage Span	12-28 V	12-28 V	12-28 V	12-28 V	12-28 V	12-28 V	12-28 V
$U_{jn}$ Nominal Voltage	24 V	24 V	24 V	24 V	24 V	24 V	24 V
$I_{jn}$ Nominal Current	200 mA	200 mA	200 mA	200 mA	200 mA	200 mA	210 mA
$P$ Input	4.8 W	4.8 W	4.8 W	4.8 W	4.8 W	4.8 W	5 W

$U_{trig}$ Trigger Voltage	≥ 10 - 24 V <sup>2</sup>	$I_{trig}$ Trigger Current	2.3 mA <sup>2</sup>	$U_{EN}$ Analogue Dimming	≥ 2.7 .. ≤ 10 V <sup>2</sup>
$U_{str}$ Strobe Voltage	3 - 24 V <sup>3</sup>	$I_{str}$ Strobe Current	1.9 mA <sup>3</sup>	$I_{EN}$ PWM Dimming	> 10 V .. ≤ 24 V <sup>1</sup>

<sup>1</sup> PWM maximal rate is ≤ 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> Outer Ø [mm]	72
<b>B</b> Inner Ø [mm]	26
<b>C</b> Height [mm]	21
 Weight [g]	72



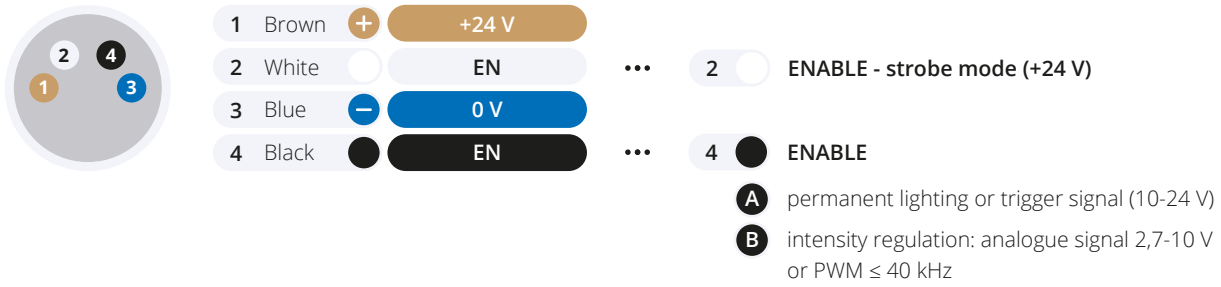
**i** For more details please see our 2D drawings.

## TECHNICAL DATA

IP Category: <b>IP50</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



## ACCESSORIES

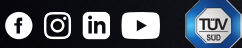
- ✓ Straight Cable M8-4PIN (5 m)
- ✓ Diffusion Glass **67-68% & 48-50% transparency**

## OPTIONAL ACCESSORIES

- + Angular Cable M8-4PIN (5 m)
- + Diffusion Glass **36-38% transparency**
- + Polarizing Filter
- + Controller **Smart Light CT-SL4D**
- + Controller **CM-01**
- + Reduced Ring **M30.5-M27**
- + Reduced Ring **M30.5-25.5**

 SmartView

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