

RING LIGHT

RL-65

Universal illumination for the majority of your applications.



HOMOGENOUS LIGHT FIELD

COMPACT DESIGN

UNIVERSAL MOUNTING

LIGHT OPERATING MODES

PERMANENT ILLUMINATION MODE

The 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 bellow.

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 of 24 V 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 bellow.

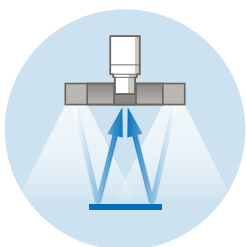
STROBE MODE

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 10 ms, while the light idle time must be at least 10 times longer, which in this case makes 100 ms. Bringing a permanent logical 1 signal (10-24 V voltage) to a light strobe input, the light standardly operates in a 10 ms ON and 100 ms OFF cycle. The strobe operation pulse might be chosen in the time span of 1-10 ms. Please do not use a trigger mode during strobing function, do not bring a voltage to the pin number 3.

LIGHT SOURCE INTENSITY REGULATION

The light intensity might be regulated by a PWM signal at a pin number 4 (black wire), or by an external controller. The maximum PWM frequency is ≤ 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

Ring Light Ø of Active Area Wavelength

CONFIGURATION

Model	Wavelength [nm]	LED Beam Angle [°]
RL-65W	White	80
RL-65IR	850	90
RL-65HR	660	90
RL-65R	625	80
RL-65G	528	80
RL-65B	470	80
RL-65UV	405 395 385 365	120

LIGHTING INTENSITY

Distance [mm]	Intensity [lx]
100	1 100
200	3 238
300	6 530
500	21 580

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_{jm} Nominal Voltage	24 V	24 V	24 V	24 V	24 V	24 V	24 V
I_{jm} 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

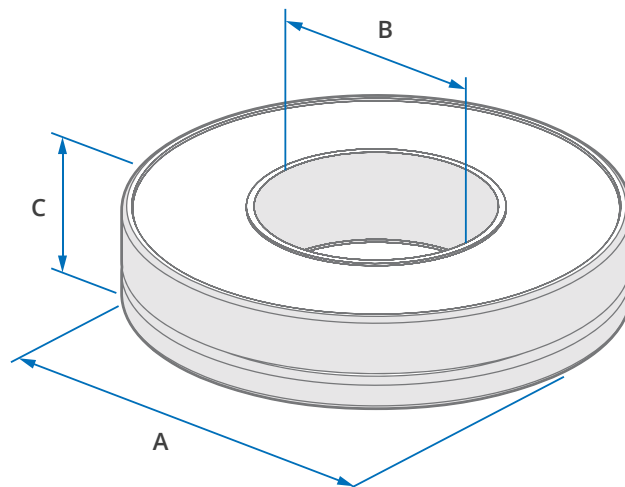
U_{trig} Trigger Voltage	≥ 10 - 24 V ²	I_{trig} Trigger Current	2.3 mA ²	U_{EN} Analogue Dimming	≥ 2.7 .. ≤ 10 V ²
U_{str} Strobe Voltage	3 - 24 V ³	I_{str} Strobe Current	1.9 mA ³	I_{EN} PWM Dimming	> 10 V .. ≤ 24 V ¹

¹ PWM maximal rate is ≤ 40 kHz ² EN (Enable) trigger signal values, M8 connector - pin number 4 ³ Driving voltage and current M8 connector - pin number 2

DIMENSIONS & WEIGHT

A Outer Ø [mm]	72
B Inner Ø [mm]	30
C Height [mm]	19
Weight [g]	72

i For more details please see our 2D drawings.

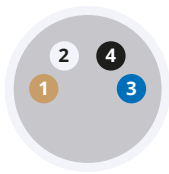


TECHNICAL DATA

IP Category: IP50	Protection Category: III	Ambient Temperature: -20 - +40 °C	Isolation Resistance: 500 V	Housing Material: Aluminium alloy
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CONNECTOR M8-3PIN ASSIGNMENT

light connector front view



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

... 2 ENABLE - strobe mode (+24 V)

... 4 ENABLE

A permanent lighting or trigger signal (10-24 V)

B light intensity regulation: analogue signal 2.7-10 V or PWM \leq 40 kHz

ACCESSORIES

✓ Straight Cable M8-3PIN (5 m)

✓ Diffusion glass of 67-68% and 48-50% transparency

OPTIONAL ACCESSORIES

+ Angular Cable M8-3PIN (5 m)

+ Diffusion glass of 36-38% transparency

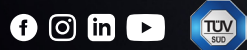
+ Polarizing Foil

+ Controller Smart Light CT-SL4D

+ Controller CM-01

 SmartView

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VISION
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