

LED PATTERN PROJECTION LIGHTS

PT-21

For applications such as object detection, surface inspection, positioning, stereovision, robot guidance and alignment tasks. The changing scale of the projected pattern allows a rough assessment of the height and distance from the object.



C-MOUNT LENS OF YOUR CHOICE

READY-MADE & CUSTOM-MADE PATTERNS

INTEGRATED MECHANISM FOR PATTERN ORIENTATION ALIGNMENT

MADE FOR CONTINUOUS & TRIGGERING OPERATION MODE

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 below.

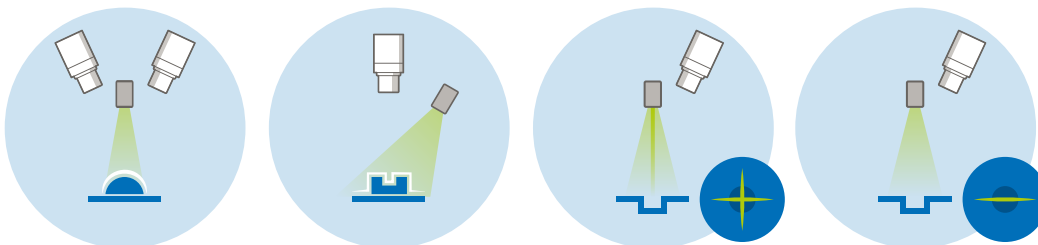
LIGHT TRIGGERING MODE

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 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 below.

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 ≤ 40 kHz.

WAYS OF USE



ORDERING CODE

example of the ordering code

PT - 21

B

LED Pattern
Projection Light

Ø of Pattern

Colour

CONFIGURATION

Model	Wavelength [nm]	Ø of Pattern [mm]
PT-21W	CTR 5700 K	21
PT-21R	625	21
PT-21G	525	21
PT-21B	470	21

ELECTRIC PARAMETERS


Model	PT-21W	PT-21R	PT-21G	PT-21B
U_n	7-28 V	7-28 V	7-28 V	7-28 V
U_{jm}	24 V	24 V	24 V	24 V
I_{jm}	150 mA	130 mA	150 mA	150 mA
P	3.6 W	3.1 W	3.6 W	3.6 W

U_{trig} Trigger Voltage $\geq 2.7 - 24 V$ ² I_{trig} Trigger Current 2.3 mA ²

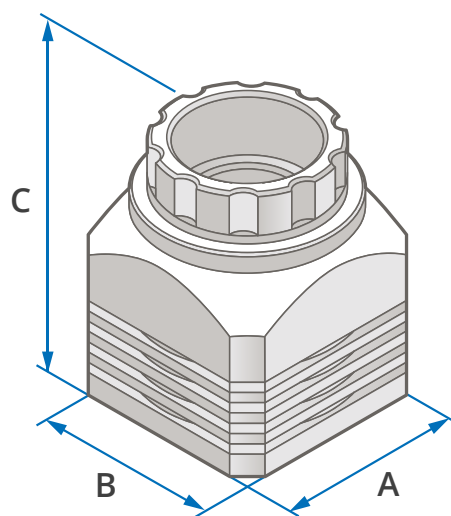
I_{EN} PWM Dimming $> 10 V .. \leq 24 V$ ¹

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

DIMENSIONS & WEIGHT

A	Length [mm]	40
B	Width [mm]	40
C	Height [mm]	51
	Weight [g]	66

i For more details please see our 2D drawings.



TECHNICAL DATA

IP Category: **IP50**

Protection Category: **III**

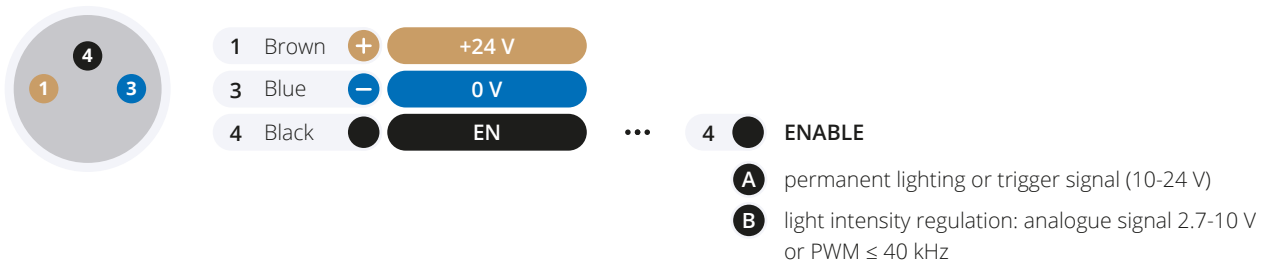
Ambient Temperature: **-20 - +40 °C**

Isolation Resistance: **500 V**

Housing Material: **Aluminium alloy**

CONNECTOR M8-3PIN ASSIGNMENT

light connector front view



ACCESSORIES

✓ Straight Cable M8-3PIN (5 m)

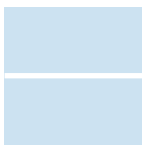
OPTIONAL ACCESSORIES

+ Angular Cable M8-3PIN (5 m)

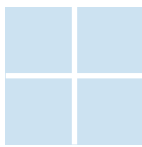
+ Patterns

+ Lens

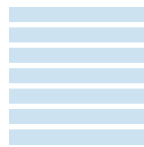
TYPES OF PATTERNS



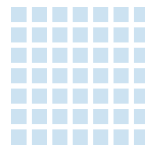
PT21-L



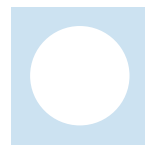
PT21-C



PT21-ML



PT21-G



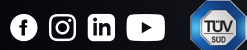
PT21-FS



PT21-HS

 SmartView

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VISION
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