

# SPOT LIGHT

## SP3-26

Direct intensive illumination of distant objects and codes.



HOMOGENOUS LIGHT FIELD

INTEGRATED INTERN LIGHT INTENSITY REGULATION

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 12-24 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 12-24 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 bellow.

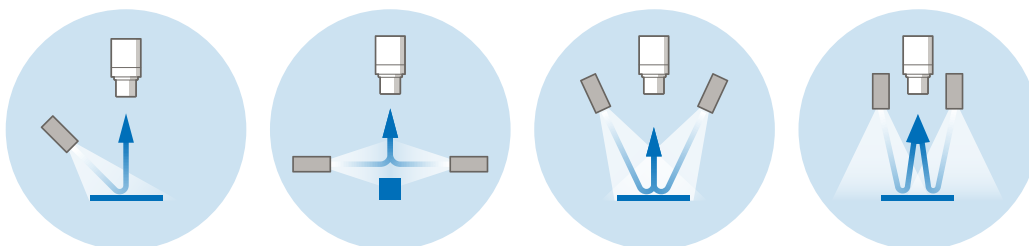
### STROBE MODE

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 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 internal trimmer, PWM signal or an external controller. 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

SP3 - 26

B

18

Spot Light    Ø of Active Area    Wavelength    LED Beam Angle

## CONFIGURATION

| Model        | Wavelength [nm]       | Ø of Active Area [mm] | LED Beam Angle [°] |
|--------------|-----------------------|-----------------------|--------------------|
| SP3-26W      | CTR 5000 k            | 26                    | 10   18            |
| SP3-26HIR    | 940                   | 26                    | 10   18            |
| SP3-26IR     | 850                   | 26                    | 10   18            |
| SP3-26HR     | 660                   | 26                    | 10   18            |
| SP3-26R      | 625                   | 26                    | 10   18            |
| SP3-26G      | 525                   | 26                    | 10   18            |
| SP3-26B   DB | 470   450             | 26                    | 10   18            |
| SP3-26UV     | 405   395   385   365 | 26                    | 10   18            |


## ELECTRIC PARAMETERS

| Model    | SP3-26W | SP3-26HIR | SP3-26IR | SP3-26HR | SP3-26R | SP3-26G | SP3-26B DB | SP3-26UV |
|----------|---------|-----------|----------|----------|---------|---------|------------|----------|
| $U_n$    | 12-28 V | 12-28 V   | 12-28 V  | 12-28 V  | 12-28 V | 12-28 V | 12-28 V    | 12-28 V  |
| $U_{jm}$ | 24 V    | 24 V      | 24 V     | 24 V     | 24 V    | 24 V    | 24 V       | 24 V     |
| $I_{jm}$ | 150 mA  | 150 mA    | 150 mA   | 150 mA   | 150 mA  | 150 mA  | 150 mA     | 140 mA   |
| P        | 3.6 W   | 3.6 W     | 3.6 W    | 3.6 W    | 3.6 W   | 3.6 W   | 3.6 W      | 3.4 W    |

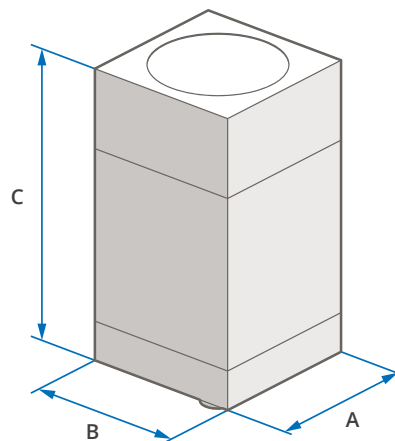
|            |                 |                          |            |                 |                     |          |             |                               |
|------------|-----------------|--------------------------|------------|-----------------|---------------------|----------|-------------|-------------------------------|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

|   |             |     |
|---|-------------|-----|
| A   | Length [mm] | 32  |
| B   | Width [mm]  | 32  |
| C   | Height [mm] | 58  |
|  | Weight [g]  | 153 |

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

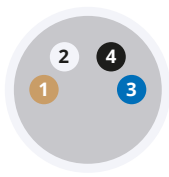


## TECHNICAL DATA

IP Category: **IP50**    Protection Category: **III**    Ambient Temperature: **-20 - +40 °C**    Isolation Resistance: **500 V**    Housing Material: **Aluminium alloy**

## CONNECTOR M8-4PIN 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 intensity regulation: PWM  $\leq$  40 kHz
- C light intensity regulation: internal trimmer

## ACCESSORIES

✓ Straight Cable M8-4PIN (5 m)

## OPTIONAL ACCESSORIES

+ Angular Cable M8-4PIN (5 m)

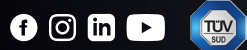
+ Controller **Smart Light CT-SL4D**

+ Controller **CM-01**

+ Light Polarization **PF-26**

 SmartView

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