

MINI SPOT LIGHT

SP-12

Direct intensive illumination of distant objects and codes.



MINIMAL INSTALLATION DIMENSIONS

EXCEPTIONAL ILLUMINATION POWER

ANALOGUE CONTROL OF LIGHTING INTENSITY

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.

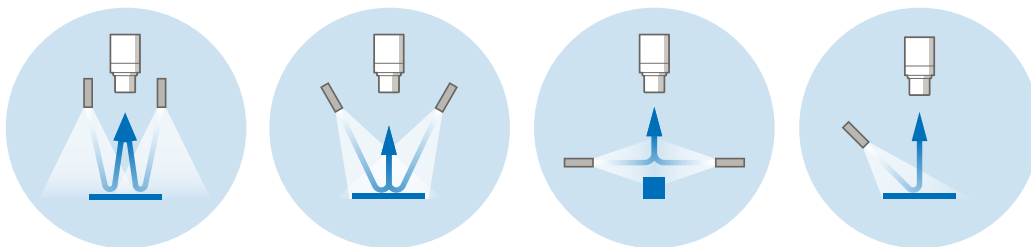
LIGHT TRIGGERING MODE

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.

LIGHT SOURCE INTENZITY 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



*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

SP

-

12

B470

Spot Light

Ø of Active Area

Exact Wavelength
Value

CONFIGURATION

Model	Wavelength [nm]	Ø of Active Area [mm]
SP-12W	CTR 5000 k	12
SP-12IR	940 850	12
SP-12R	660 625	12
SP-12G	528	12
SP-12B	470	12
SP-12UV	405 395 385 365	12

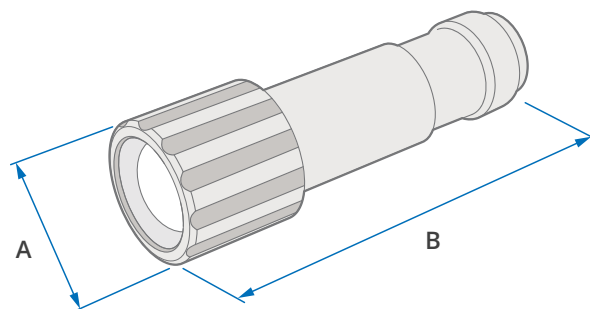
ELECTRIC PARAMETERS

Model	SP-12W	SP-12IR	SP-12R	SP-12G	SP-12B	SP-12UV
U_n Voltage Span	12-28 V	12-28 V	12-28 V	12-28 V	12-28 V	12-28 V
U_{jm} Nominal Voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
I_{jm} Nominal Current	70 mA	70 mA	60 mA	70 mA	70 mA	70 mA
P Input	1.7 W	1.7 W	1.5 W	1.7 W	1.7 W	1.7 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		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

DIMENSIONS & WEIGHT

A Outer Ø [mm]	16
B Length [mm]	51
Weight [g]	18



i For more details please see our 2D drawings.

TECHNICAL DATA

IP Category: **IP67**

Protection Category: **III**

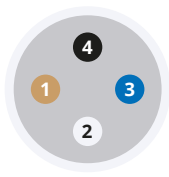
Ambient Temperature: **-20 - +40 °C**

Isolation Resistance: **500 V**

Housing Material: **Brass & Aluminium alloy**

CONNECTOR M12-4PIN ASSIGNMENT

light connector front view



1	Brown	+	+24 V
2	White		not connected
3	Blue	-	0 V
4	Black		ENABLE

...

- 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

✓ 2x **M12x1 Nuts** and 2x **Washers**

OPTIONAL ACCESSORIES

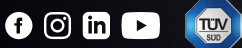
+ Cable with Connector **M12 4-Pin Female 5m**

+ Controller **Smart Light CT-SL4D**

+ Controller **CM-01**

 **SmartView**

**YOUR
VISION
PARTNER**



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