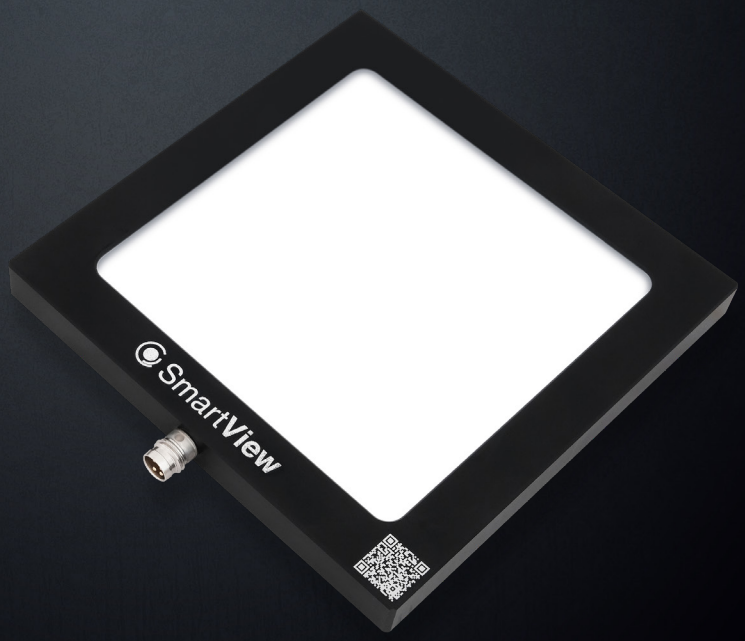
SmartView

BACK
LIGHT

BLC-85

The collimation of the luminous flux ensures high precision in contour imaging of the inspected object. The light rays are directed in parallel, minimizing scatter and providing sharp edges of the captured objects.



- HOMOGENOUS LIGHT FIELD
- COLLIMATED LUMINOUS FLUX
- COMPACT DESIGN
- UNIVERSAL MOUNTING

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 12-28 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 12-28 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.

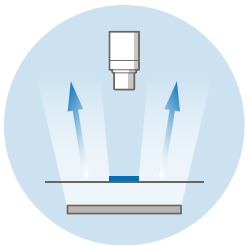
STROBE MODE

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 (12-28 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 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 12-28 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

BLC	-	85	W
Collimated Back Light		Active Area	Wavelength

CONFIGURATION

Model	Wavelength [nm]	Active Area [mm]
BLC-85W	white	85 x 85
BLC-85HIR	940	85 x 85
BLC-85IR	850	85 x 85
BLC-85R	633	85 x 85

ELECTRIC PARAMETERS

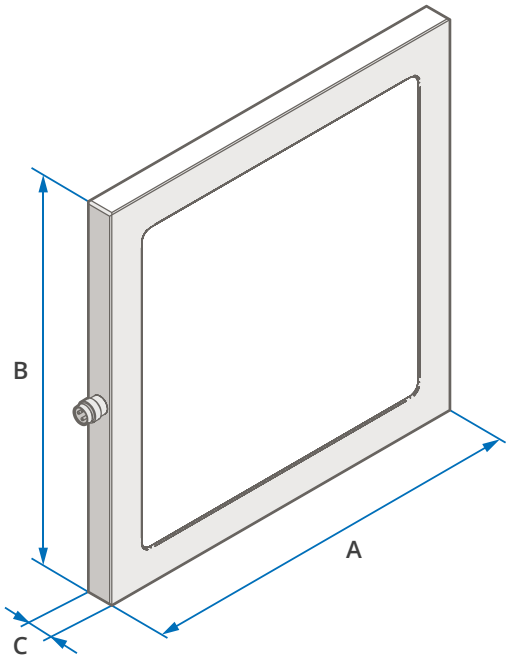
	Model	BLC-85W	BLC-85HIR	BLC-85IR	BLC-85R
U_n	Voltage Span	18-28 V	21-28 V	21-28 V	20-28 V
U_{jm}	Nominal Voltage	24 V	24 V	24 V	24 V
I_{jm}	Nominal Current	200 mA	200 mA	200 mA	200 mA
P	Input	4.8 W	4.8 W	4.8 W	4.8 W

U_{trig}	Trigger Voltage	≥ 12 - 28 V	I_{trig}	Trigger Current	1.4 mA

DIMENSIONS & WEIGHT

A	Length [mm]	110
B	Width [mm]	110
C	Height [mm]	11
	Weight [g]	180

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

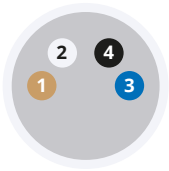


TECHNICAL DATA

IP Category: **IP63** | 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 (12-28 V)
- B light intensity regulation: Analogue signal 2.7-10 V or PWM ≤ 40 kHz

ACCESSORIES

✓ Straight Cable M8-4PIN **(5 m)**

OPTIONAL ACCESSORIES

+ Angular Cable M8-4PIN **(5 m)**

+ Controller **Smart Light CT-SL4D**

+ Controller **CM-01**

SmartView

YOUR VISION PARTNER

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