

MATRIX LIGHT

MX-90

Direct, universal illumination
of most surfaces.



HOMOGENOUS LIGHT FIELD

UNIVERSAL MOUNTING

ROUGH, METAL HOUSING

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.

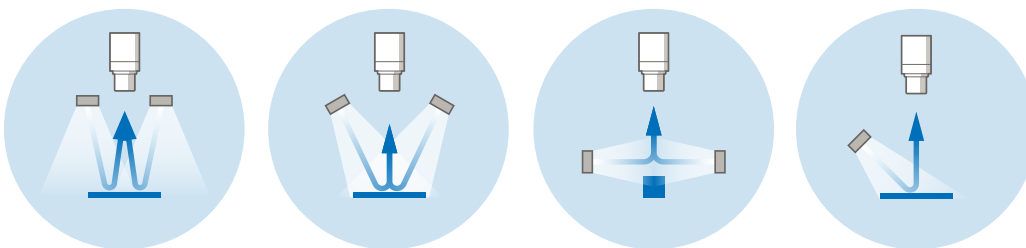
LIGHT TRIGGERING MODE

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



ORDERING CODE

example of the ordering code

MX - **90**

B

Matrix Light

Active Area

Wavelength

CONFIGURATION

Model	Wavelength [nm]	Active Area [mm]	LED Beam Angle [°]
MX-90W	White	90 x 90	120
MX-90IR	850	90 x 90	50
MX-90R	633	90 x 90	60
MX-90G	525	90 x 90	120
MX-90B	470	90 x 90	120

ELECTRIC PARAMETERS

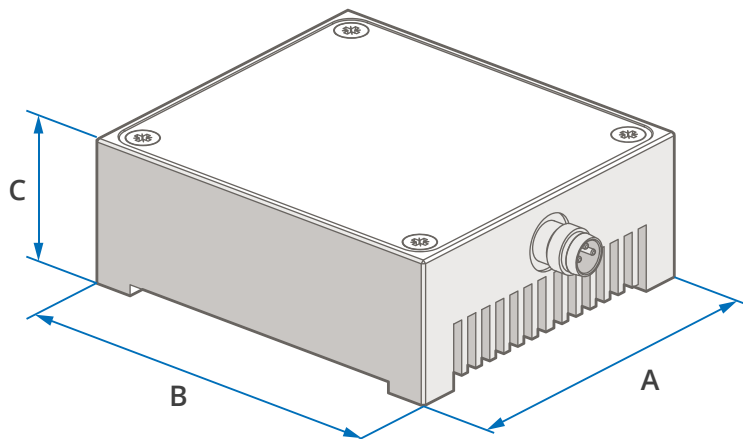
Model	MX-90W	MX-90IR	MX-90R	MX-90G	MX-90B
U_n Voltage Span	19-28 V	23-26 V	22-28 V	18-28 V	19-28 V
U_{jm} Nominal Voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
I_{jm} Nominal Current	345 mA	340 mA	350 mA	345 mA	340 mA
P Input	8.3 W	8.2 W	8.4 W	8.3 W	8.2 W
U_{trig} Trigger Voltage	$\geq 12 - 28 V$ ²				
I_{trig} Trigger Current			3.5 mA ²		
U_{EN} Analogue Dimming	$\geq 2.7 .. \leq 10 V$ 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]	112
B Width [mm]	112
C Height [mm]	22
Weight [g]	381

i For more details please see our 2D drawings.

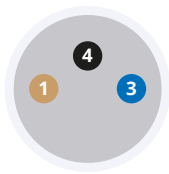


TECHNICAL DATA

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



1	Brown	+	+24 V
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

✓ Straight Cable M8-3PIN (5 m)

✓ Diffusion glass of 67-68%, 48-50% and 36-38% transparency

OPTIONAL ACCESSORIES

+ Angular Cable M8-3PIN (5 m)

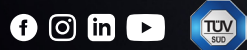
+ Polarizing Foil

+ Controller **Smart Light CT-SL4D**

+ Controller **CM-01**

 SmartView

**YOUR
VISION
PARTNER**



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