# Professional lighting systems for industrial imaging



## Incident light

- >> extremely versatile
- >> rugged and compact housing
- >> high luminous intensity
- >> well-priced design
- >> for continuous, switched and pulsed operation (depending on type)







PICCO-MA housing with integrated cooling ribs

## **Technical specifications**

Housing	Aluminium milled, black or natural anodised; Plastic		
Front cover (within the scope of supply)*	Acrylic clear, antireflective coating 2mm		
Total weight	approx. 60g		
Operating / ambient temperatur	max. 50°C recommended		
IP protection class	depending on the version		
Connector	M8 plug (4-pin)**		
Supply voltage***	24VDC type or 12VDC type: 24VDC resp. 12VDC		
	SC type: For use in conjunction with a controller		
Number of LEDs	48		
LED lifetime	The LED lifetime of our lights is very high, but depends on many different factors such as ambient temperature, current load, and so on. Further information is available in the <b>Technical information LED lifetime</b> .		

- \* more information and further front covers see section Accessories
- Cable not included in the scope of supply
- \*\*\* more information see section Operating modes

#### Characteristics

	LED characteristics		typical characteristics per light		
Colour *	Wavelength (approx.)	Viewing angle	Current demand (24V type) ** / constant current max. (SC type) [mA]	Pulse current max. (SC type) *** [mA]	Intensity **** [W/m²]
red	617nm	30°	115	600	38
red	617nm	60°	115	600	14
red	635nm	120°	100	600	6
white	6500K	120°	105	600	5
IR	850nm	30°	110	2400	32
IR	850nm	50°		2400	
IR	850nm	120°		2400	

- other colours and types from UV to infrared on request
- \*\* stated current values of the 24V types should be considered approximate values
- \*\*\*\* depending on the strobe conditions, recommended maximum values for a flash time of 1ms
  \*\*\*\*\* approximately data measured in DC mode; Measuring distance 150mm



Safety note!

LED light systems can produce very intense radiation, which may possibly damage the eyes on improper use. Do not look directly into the light beam with unprotected eyes! Use eye protection!

## Operating modes

### 24VDC type / 12VDC type

The lights are designed depending on the version for continuous operation at 24VDC or 12VDC. The following operating modes are possible:

- DC operation at an appropriate power supply with 24VDC or 12VDC
- Switched operation with a matching power supply e.g. via PLC, opto-relay or controller (GS or SC series) Brightness-controlled operation via controller (GS or SC series) in conjunction with suitable power supply
- Pulsed mode via controller (GS or SC series) in conjunction with suitable power supply. The LED current can be increased in pulse mode up to a factor of 2 to 3.

### SC type

For pulsed, switched or brightness-controlled operation, the lights are also available as optimized SC versions. They can be used in combination with our controllers of the GS and SC series and provide optimized and maximum current flow, especially in pulsed operation. We will assist you in selecting the right components.

#### **Büchner Lichtsysteme GmbH**

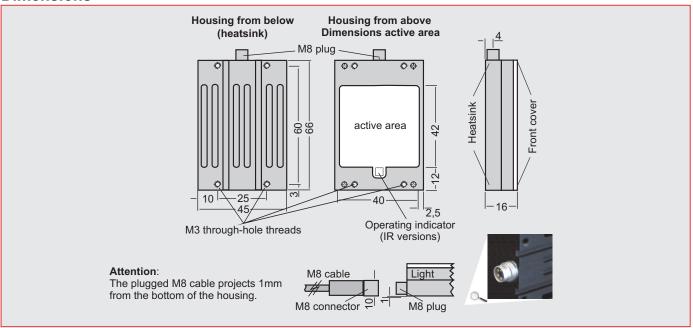
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## **Incident light**

#### **Dimensions**



## PIN assignment connector

M8 plug 4-pin (Front view on housing)



24VDC type			
PIN	Colour	Function	
1	brown	+ 24V	
3	blue	_	

12VDC type		
PIN	Colour	Function
2	white	+ 12V
3	blue	-

PIN	Colour	Function
4	black	+
3	blue	-

## Application notes (Incident light)





Light which hits the surface from a specific angle physically produces a slightly inhomogeneous light spot, depending on the inclination. By using a symmetrical arrangement of several lights this occurring intensity drop can be compensated and increases additionally the intensity in the field of view.

#### **Accessories**



Front covers / diffusers
Through the use of different diffuse front covers, the optical characteristics of the illumination can be changed.
More information can be found in the Technical information Front materials.

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