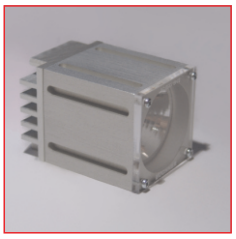
Professional lighting systems for industrial imaging

COMPACT-SPOT

Spot light

>> new platform for spot lights
>> version as 24VDC type with integrated current control and wide input range or as SC/6V type
>> optional equipped with larger heatsink for increased power (P versions)
>> available with different secondary optics
>> for continuous, switched and pulsed operation (depending on type)



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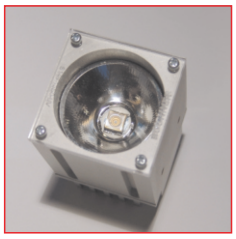

COMPACT-SPOT with reflector

Technical specifications

Housing	Aluminium, natural anodised
Front cover (within the scope of supply)*	Acrylic clear, antireflective coating 2mm (for red, white, IR) resp. clear 3mm (for UV)
Total weight	approx. 140g (standard version) / approx. 160g (P version)
Operating / ambient temperature	max. 50°C recommended
IP protection class	depending on the version
Connector	M8 plug (4-pin)**
Supply voltage***	**24VDC type:** 10 to 30VDC
	SC/6V type: For use in conjunction with a controller or direct at 6VDC
Number of LEDs	1 High-Power LED
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 **Technical information LED lifetime**.

* 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.)**	**Secondary optic**	**Current demand** (24V type) ** **[mA]**	**Constant current max.** (SC/6V type) **[mA]**	**Pulse current max.** (SC/6V type) *** **[A]**	**Intensity **** [W/m²]**			
						Type N	**Type M**	**Type W**	**Type R**
red	617nm	N, M, W	50	350	1,7	100	17	9	-
white	6500K	N, M, W	60	350	1,9	110	15	8	-
IR	850nm	N, M, W	50	350	2,4	130	24	12	-
UV	365nm	R	95	480	0,9	-	-	-	95
UV	385nm	R	95	480	0,9	-	-	-	140

* 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 250mm

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
The 24VDC type has an integrated current control with wide input range and is designed to operate at 10 to 30VDC.
The following operating modes are possible:

- DC operation at an appropriate power supply with 24VDC
- Switched operation with a matching power supply e.g. via PLC, opto-relay or controller (GS or SC series)

SC/6V type
For pulsed, switched or brightness-controlled operation, the lights are also available as optimized SC/6V versions. They can be used in combination with our controllers of the GS and SC series or directly at 6VDC and provide optimized and maximum current flow, especially in pulsed operation.
We will assist you in selecting the right components.

technical changes reserved

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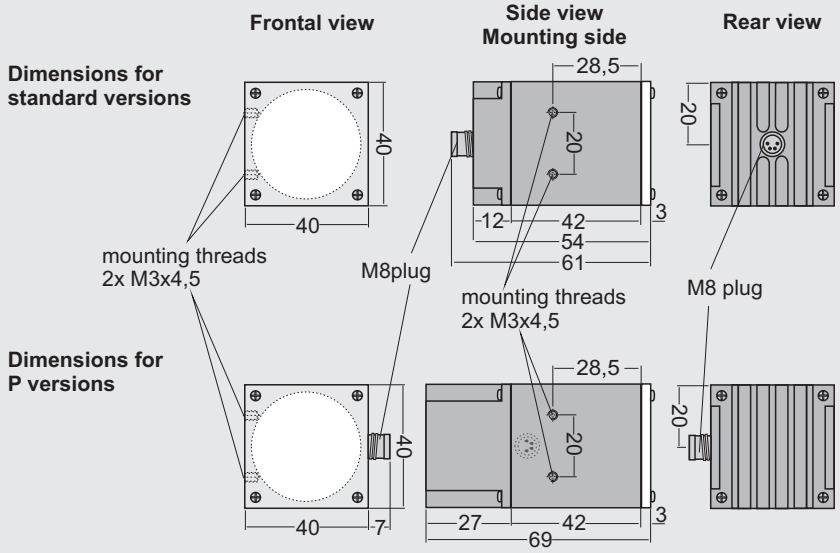
IMAGING LIGHT TECHNOLOGY BÜCHNER

COMPACT-SPOT

Spot light

Dimensions



Caution: M8 plug of P versions is not on the back, but on the side

PIN assignment connector

M8 plug 4-pin
(Front view on housing)

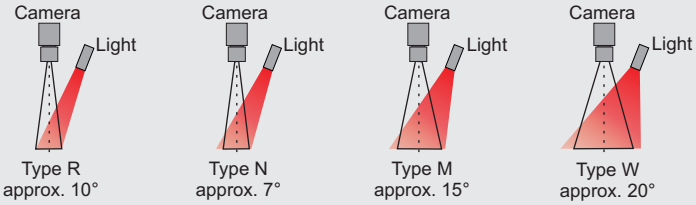
24VDC type

PIN	Colour	Function
1	brown	+ (10-30V)
3	blue	-

SC/6V type

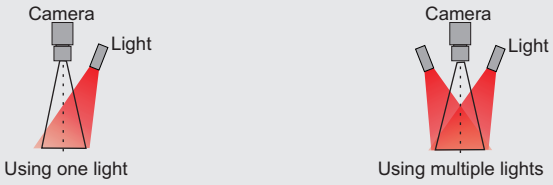
PIN	Colour	Function
4	black	+ resp. + 6V
3	blue	-

Secondary optics



By using different secondary optics, the photometric properties of the lighting can be adapted to the respective application.

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 occuring intensity drop can be compensated and increases additionally the intensity in the field of view.

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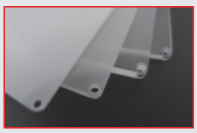
Accessories



Front covers / diffusers
Through the use of different diffuse front covers, the optical characteristics of the illumination can be changed. For the UV versions special front covers are necessary, which are UV-resistant and UV-transparent. More information can be found in the **Technical information Front materials**.

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