Professional lighting systems for industrial imaging

CORONA-180

Ring light

- >> high power
- >> high variability
- >> optimized thermal design
- >> optional control options:

ring (2 channels) or segment (8 channels) control

>> for continuous, switched and pulsed operation (depending on type)





CORONA-180 red

CORONA-180 PCB

Technical specifications

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Housing	Aluminium, natural anodised
Front cover (within the scope of supply)*	Acrylic clear, antireflective coating 3mm
Total weight	approx. 450g
Operating / ambient temperature	max. 50°C recommended
IP protection class	depending on the version
Connector	M8 plug (4-pin)** / Segment control: M12 plug (17-pin)**
Supply voltage*** 24VDC type or 12VDC type: 24VDC resp. 12VDC	
	SC type: For use in conjunction with a controller
Number of LEDs	128
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

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) *** [A]	Intensity **** [W/m²]
red	617nm	30°	410	1,6	30 - 80
red	617nm	60°	410	1,6	15 - 40
red	635nm	120°	410	1,6	17
white	6500K	120°	520	1,6	17
SH white	6500K	120°		9,6	
IR	850nm	30°	430	6,4	25 - 100
IR	850nm	50°	430	6,4	12 - 50
IR	850nm	120°	430	6,4	
blue	470nm	20°	520	2,4	
UV	375nm	120°			

^{*} other colours and types from UV to infrared on request

^{****} 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!

Büchner Lichtsysteme GmbH

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BUCHNER

^{**} Cable not included in the scope of supply

^{***} more information see section Operating modes

^{**} stated current values of the 24V types should be considered approximate values

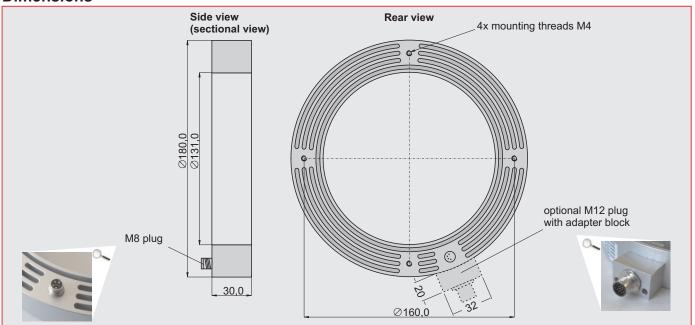
^{***} depending on the strobe conditions, recommended maximum values for a flash time of 1ms

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Dimensions



PIN assignment connector

M8 plug 4-pin (Front view on housing)



24VDC	type
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PIN	Colour	Function
1	brown	+ 24V
3	blue	- (Ch. 1)
(4)	(black)	(- Ch. 2)

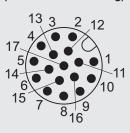
12VDC type

PIN	Colour	Function
2	white	+ 12V
3	blue	- (Ch. 1)
(4)	(black)	(- Ch. 2)

SC type

PIN	Colour	Function
4	black	+ common
3	blue	- (Ch. 1)
(2)	(white)	(- Ch. 2)

M12 plug 17-pin (Front view on housing)



24\	/DC	tvi	oe
		L y	~

PIN	Colour	Function
17	white/grey	+ 24V
1	brown	- Ch. 1
2	blue	- Ch. 2
3	white	- Ch. 3
4	green	- Ch. 4
5	rose	- Ch. 5
6	yellow	- Ch. 6
7	black	- Ch. 7
8	grey	- Ch. 8

12VDC type

PIN	Colour	Function
		+ 12V
		- Ch. 1
		- Ch. 2
		- Ch. 3
		- Ch. 4
		- Ch. 5
		- Ch. 6
		- Ch. 7
		- Ch. 8

SC type

Colour	Function
	+ common
	- Ch. 1
	- Ch. 2
	- Ch. 3
	- Ch. 4
	- Ch. 5
	- Ch. 6
	- Ch. 7
	- Ch. 8

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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

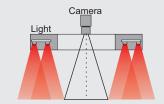
For pulsed, switched or brightness-controlled operation, the lights are also available as optimized SC versions. They can be used in combination with our controllers of the GS and SC series and provide optimized and maximum current flow, especially in pulsed operation. We will assist you in selecting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

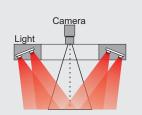
Application notes (Incident light)

Angle of the sub-areas

The 16 sub-areas of the CORONA-180 PCB can be bent at the factory and thus enable a broad influence on the radiation pattern and a focusing of light.

An innovative PCB structure ensures good heat distribution and dissipation.

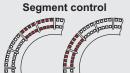




Options

Optional control of the LEDs

The CORONA-180 can optional be configured so that either the inner and outer ring (2-channel operation with M8 plug (4-pin)) or 8 segments (8channel operation with M12 plug (17-pin)) can be individually controlled.





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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