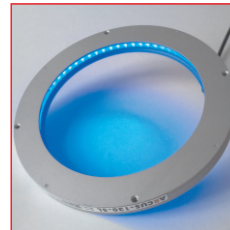


# ARCUS-130

## Darkfield illumination

- >> large-size darkfield illumination
- >> single layer (SL) or double layer (DL) version available
- >> optional segmentation (with 4 or 8 segments)
- >> DL version optionally with separately controllable layers (2 channels)
- >> optional diffuser insert
- >> for continuous, switched and pulsed operation (depending on type)



ARCUS-130-SL in blue



ARCUS-130-DL in red

### Technical specifications



Housing	Aluminium, natural anodised
Diffuser (optional)*	Acrylic satinised, material thickness 3mm
Total weight	approx. 235g (single layer SL version) / approx. 340g (double layer DL version)
Operating / ambient temperatur	max. 50°C recommended
IP protection class	depending on the version
Connector	M8 plug (4-pin)** / <b>4-Channel-Operation:</b> M8 plug (6-pin) / <b>8-Channel-Operation:</b> M12 plug (17-pin)
Supply voltage***	<b>24VDC type or 12VDC type:</b> 24VDC resp. 12VDC <b>SC type:</b> For use in conjunction with a controller
Number of LEDs	64 (SL version) / 128 (DL version)
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 diffusers see section Accessories  
 \*\* Cable not included in the scope of supply  
 \*\*\* more information see section Operating modes

### Characteristics

Colour *	LED characteristics		typical characteristics per light					
	Wavelength (approx.)	Viewing angle	Current demand (24V type) ** / constant current max. (SC type) [mA]		Pulse current max. (SC type) *** [A]		Intensity **** [W/m <sup>2</sup> ]	
			SL	DL	SL	DL	SL	DL
red	615nm	120°	150	300	0,8	1,6	3	8
white	6500K	120°	260	520	2,0	4,0	9	29
IR	850nm	120°	225	450	3,2	6,4		
blue	470nm	120°	270	540	2,0	4,0	15	

\* 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: SL version 16mm; DL version 26mm



#### 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.

technical changes reserved

#### Büchner Lichtsysteme GmbH

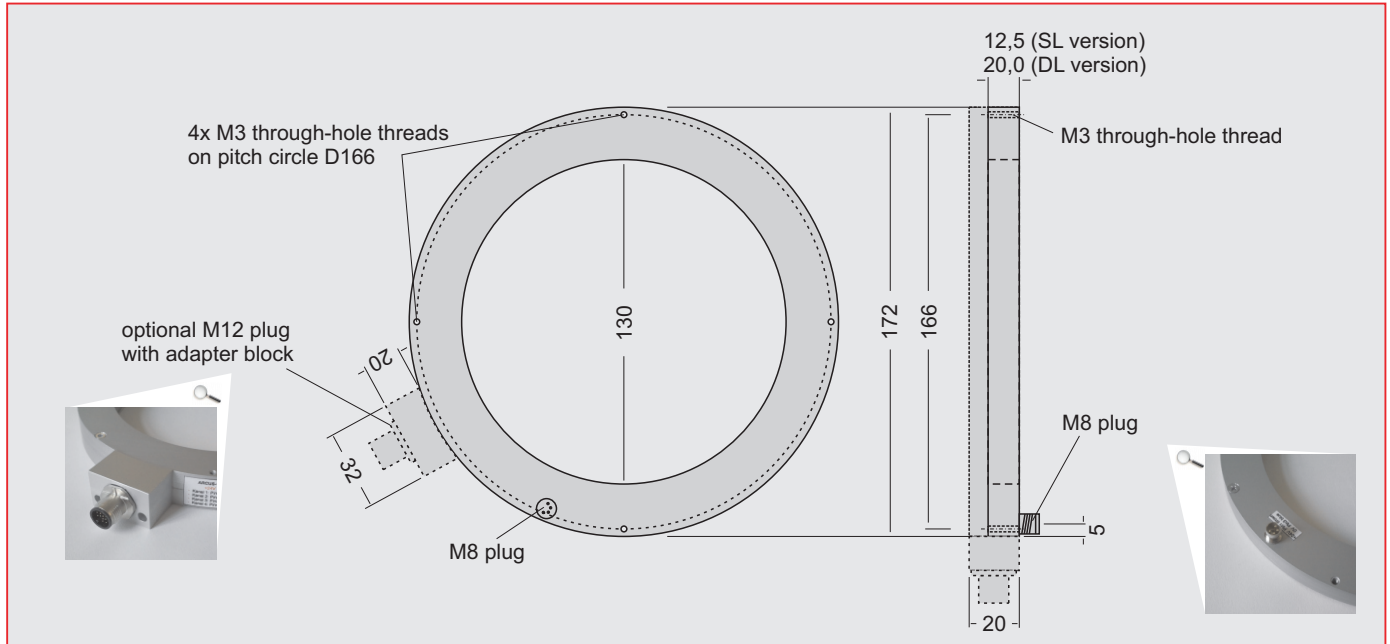
Uzstrasse 2      Tel.: +49 (0)8293 | 909 112      E-mail: info@buechner-lichtsysteme.de  
 86465 Welden      Fax: +49 (0)8293 | 909 111      Web: www.buechner-lichtsysteme.de  
 Germany      [www.imaging-light-technology.com](http://www.imaging-light-technology.com)



# ARCUS-130

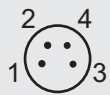
## Darkfield illumination

### Dimensions



### PIN assignment connector

M8 plug 4-pin  
(Front view on housing)



24VDC type

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

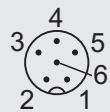
12VDC type

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)

M8 plug 6-pin  
(Front view on housing)



24VDC type

PIN	Colour	Function
1	brown	+ 24V
3	blue	- Ch. 1
4	black	- Ch. 2
5	grey	- Ch. 3
6	rose	- Ch. 4

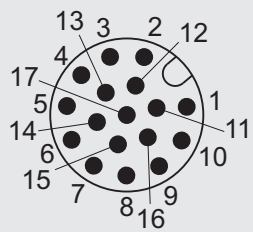
12VDC type

PIN	Colour	Function
2	white	+ 12V
3	blue	- Ch. 1
4	black	- Ch. 2
5	grey	- Ch. 3
6	rose	- Ch. 4

SC type

PIN	Colour	Function
4	black	+ common
3	blue	- Ch. 1
2	white	- Ch. 2
5	grey	- Ch. 3
6	rose	- Ch. 4

M12 plug 17-pin  
(Front view on housing)



24VDC type

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

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

technical changes reserved

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IMAGING LIGHT TECHNOLOGY  
**BÜCHNER**

## ARCUS-130

## Darkfield illumination

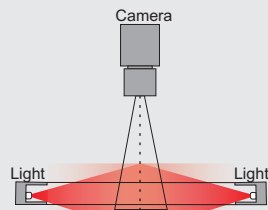
### Versions / Options

The ARCUS-130 is available in two different versions, which differ by the number of LEDs used. The SL version has 64 LED in one layer at a thickness of 12.5 mm. The more intense DL version has twice the number of LEDs in two layers and is 20.0 mm thick.

Optionally, both versions can be equipped so that they can be controlled in 4 or 8 segments. For this purpose, appropriate connectors are installed.

It is also possible for the DL version to control both rings separated, thereby generating different lighting conditions on the surface.

### Application notes (Darkfield)



#### Note!

The optical axis of the LEDs in the SL version is not centered in the housing. This results in slightly different lighting properties on both sides of the lamp, which can be used accordingly. Therefore, pay attention to the installation position.

### Accessories



#### Diffuser insert

Through the use of the diffuser insert, the optical characteristics of the light can be changed to make the emitted light smoother and more homogeneous.

More information can be found in the **Technical information Front materials**.