S-5x50-A624-N-CLR-P-S

High-Power LED Spot lighting
for industrial image processing

624 nm

Made in GERMANY © evotron 2026-09

Product features

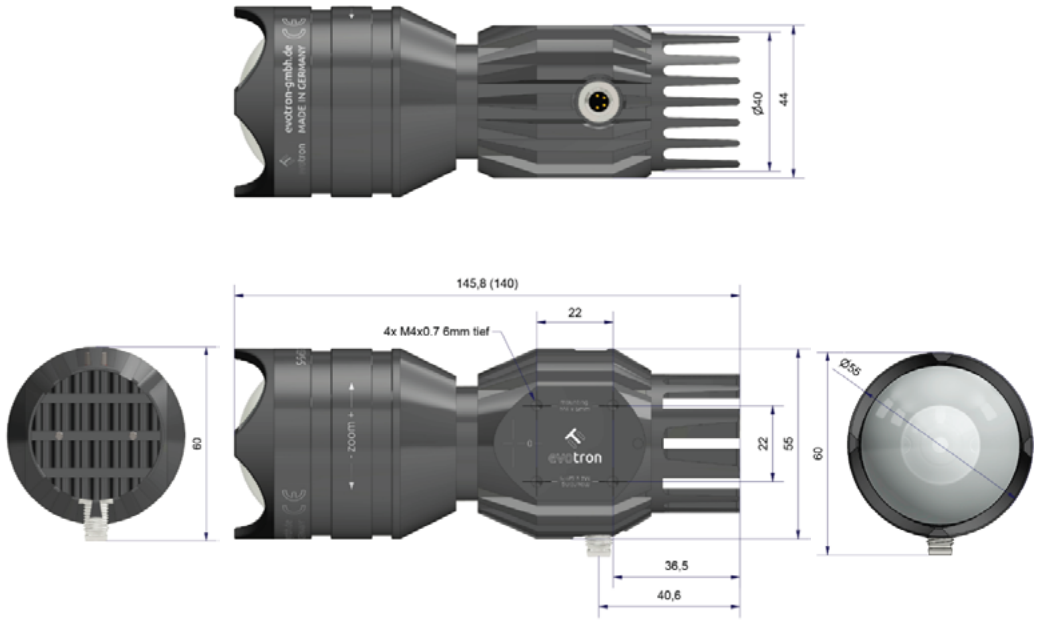
- Optical zoom - manually adjustable
- Homogeneous, very bright object illumination
- Continuous operation with high light output
- Flash mode with multiple overcurrent
- Flash times from 1 µs
- Plug & Play - automatic configuration
- Patented lumiSENS® technology
  - Long-term stable lighting parameter
  - Auto-calibration of LED brightness
  - Monitoring of LED temperature
  - Active monitoring of the LED lifetime
  - Communication of actual process data[1]
- Reverse polarity and ESD protected
- High reliability, long service life
- Compatible with all standard controllers

Fields of application:

- Industrial image processing, Machine Vision
- Measuring very fast moving objects
- Inspection of wafers and solar panels

[1] in combination with evotron LED controllers

Dimensions



all dimensions in mm

CE

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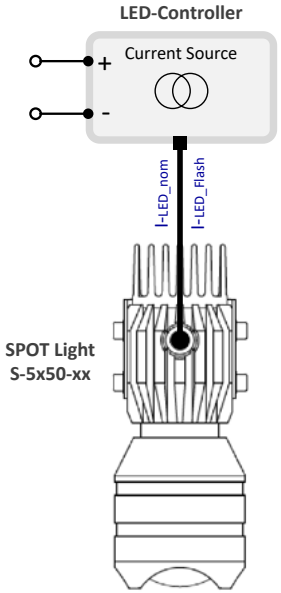
Disposal

This product is RoHS compliant. The product can be returned to the manufacturer for proper disposal.

The product itself must not be disposed of with household waste.

WEEE-Reg.-Nr. DE85473784

Installation



Technical Data

Light Color, Wavelength or Color Temperature	Amber, 624 nm
Radiant angle	
Optical Material	Glas, Silicon
Diameter light field @ distance of 50 mm	5 mm
Housing Dimensions (D_{max} x L)	55 mm x 146 mm
Housing Material	Aluminium / PA12
Weight	400 g
Protection Rating	IP 67
Protecting Class	III, Savety Extra Low Voltage (SELV)
Risk Group (DIN EN 62471)	2 (Free Group
Thermal Protection T_{MAX}	85 °C
Connector	M8 - male, 4 pin

Continuous Operation	Min	Nom	Max
LED Current @ 25 °C, free convection	40 mA	2.0 A	2.3 A
LED Forward Voltage	4.0 V	4.4 V	5.8 V
Power Consumption	0.16 W	8.8 W	13.4 W

Flash Operation	Min	Nom	Max
LED Current - @ 25 °C, free convection	40 mA	-	6.0 A
LED Forward Voltage	4.0 V	-	7.8 V
Power Consumption @ Pulse (@ t_{PULS} 100 µs)	0.16 W	-	44.4 W

Intended Use

This LED lighting is intended exclusively for use in industrial automation and machine vision applications.

The permissible environmental conditions for the transport, installation, and operation of the lighting must be observed.

Safety notice

Installation, assembly, and commissioning must be carried out by trained specialist personnel.

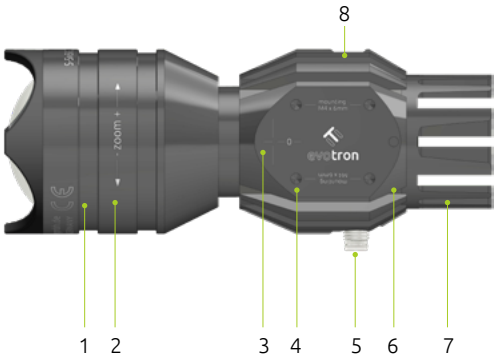
Risk of glare

Severe glare can lead to temporary impairment of vision, which can result in irritation, impairment, or accidents. **Wear safety glasses!**

Risk of burns from hot surfaces

During operation, the light unit can reach a housing temperature above 55°C. Do not cover or touch the lighting while it is in operation.

Overview of functions

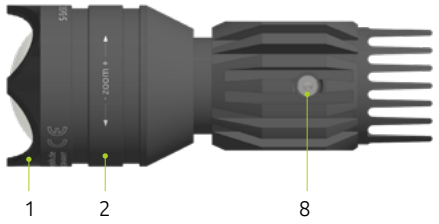


1	Spot optics with rotatable aperture ring
2	Zoom adjustment - rotatable
3	Angle marking for mounting bracket
4	Mounting hole on both sides 4x M4 x 6 mm
5	Connector - M8 plug
6	Pivot point of mounting bracket
7	Cooling ribs - passive cooling
8	Zoom lock - M4 hexagon socket

Operation

Zoom Adjustment

The zoom adjustment of the spot light can be locked via the integrated locking mechanism. This protects the adjustment from the influence of vibrations and mechanical oscillations, even in an industrial environment.

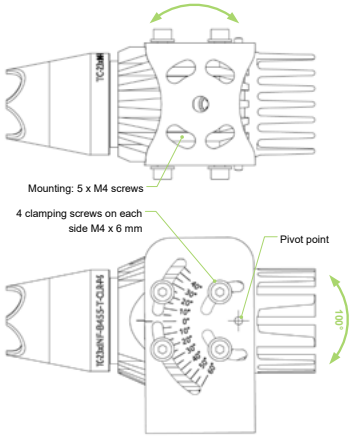


1. Loosen the zoom lock - screw 8 with two counter clockwise turns (Allen key 3 mm).
2. Set the desired spot diameter by turning the zoom ring 2.
3. Hand-tighten the zoom lock - screw 8 by turning it clockwise.
4. The aperture ring 1 can be turned to a desired position

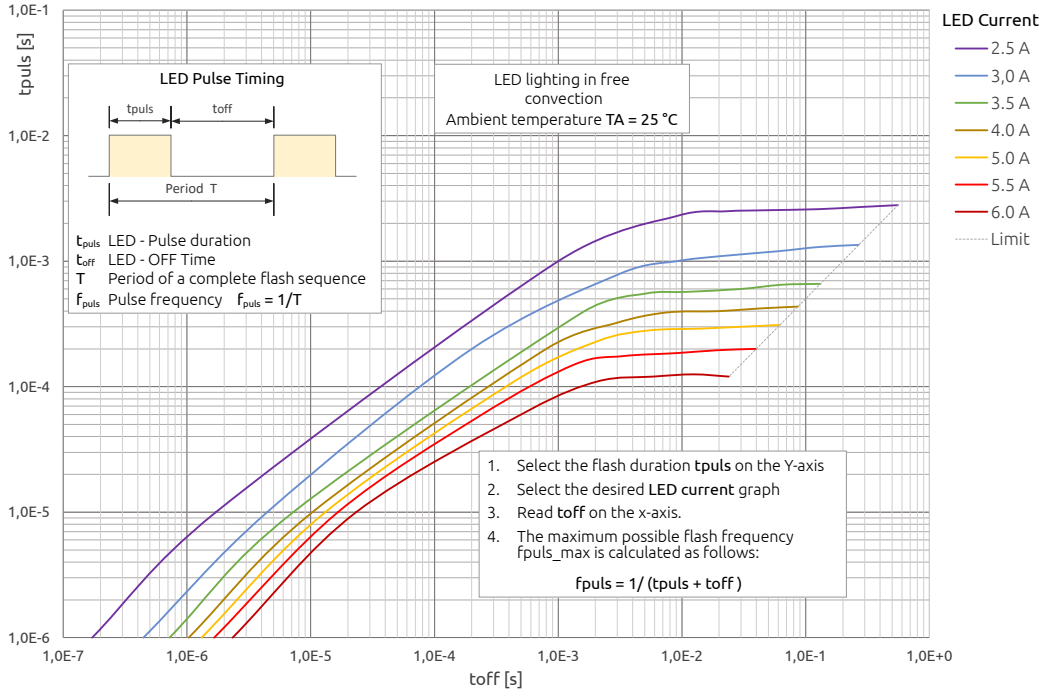
Accessory

Spot – Monting bracket MOUNT-S-SB100-V

The spot mounting bracket is used for easy adjustment and alignment, as well as reliable mounting of the spot lighting.
The mounting bracket allows reproducible angular adjustment in the range of 100 degrees. The rotational position of the mounting bracket can be adjusted before clamping.



Spot Pulse-Timing Diagram for continuous pulse trains



Putting into operation

Operation with evotron controller

Plug & Play - the LED controller automatically reads the required configuration data from the LED lighting and adaptively adjusts to the parameters of the lighting. Active monitoring of the power LEDs guarantees long service life and reliable operation.

Continuous light

In continuous light mode, the lighting can be continuously in the range of the specified LED continuous current.

Flash mode

In flash mode with multiple overcurrent, precise light pulses with very high irradiance and short pulse times of up to 1µs can be generated. This makes spot illumination ideally suited for the precise exposure of fast-moving fast-moving measuring objects.

Operation with other controllers

All evotron LED lightings can also be operated with standard LED current sources. In this case, it must be ensured that the lighting limit values specified in the data sheet are complied with.

Connection diagram

The LED lighting must be controlled by a suitable, regulated current source.

Any evotron lumiSENS® lighting controllers or other standard LED controllers with a regulated current output are suitable for operation.

Assignment M8 plug 4-pin

Pin 1	Brown	$+I_{LED}$
Pin 2	White	SD [1]
Pin 3	Blue	$-I_{LED}$
Pin 4	Black	SG [1]

1 Only LED lighting controllers with lumiSENS® Technology use these pins - otherwise please do not connect them.

IMPORTANT NOTE

Only operate the LED lighting on an LED controller with a current output or directly on a current source.