Baumer ZVI-RL-80/141-IR

Article number: 11731493

Overview

- Flashable infrared LED ring light
- Infrared (850 nm)
- Radiation angle 90°
- Integrated LED controller with 4 operating modes
- IP54

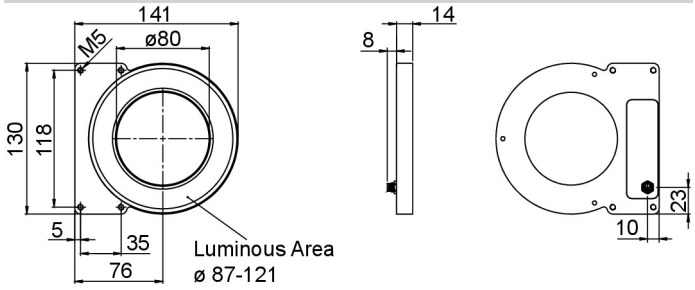
Picture similar

Technical data

General data	
Manufacturer	Baumer
Illumination data	
Color / Peak wavelength	IR (850 nm)
Beam angle	90°
Operating modes	steady light steady light with brightness control flashed light with PNP sourcing flashed light with NPN sourcing
Recommended illumination distance	150 mm ... 300 mm
Electrical data	
Connectors	M8/4-pin male connector
Operating voltage	24 VDC
Maximum flash duration	20 ms
Power consumption	approx. 9 W (steady light) approx. 25 W (flashed light)

Mechanical data	
Construction design	ring light
Dimensions	141 mm x 130 mm x 14 mm
Inner diameter	80 mm
Dimensions luminous area	inner diameter 87 mm outer diameter 121 mm
Material of cover glass	PMMA (acrylic glass)
Material of housing	aluminum (anodized, black)
Weight	≤ 300 g
Environmental conditions	
Operating temperature	0 … +30 °C 0 … +45 °C with thermal connection
Conformity	CE RoHS
Humidity	30 … 70 %
Protection class	IP 54

Dimension drawing



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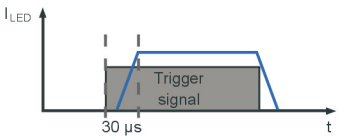
Principle

Steady light

Current is fixed depending on the respective lighting model.

Trigger

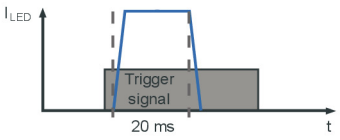


Trigger (Pin3) it is a high resistance current sink with 0.2 mA for 5 V and 5 mA for 24 V.
High = 5…24 V=ON
Low = 0...1 V=OFF

Brightness control

DIM (Pin2) is used as brightness control and operation mode switch. It's a high resistance current sink with 0.2 mA for 5 V and 1 mA for 24 V.
PWM frequency: 3.8 kHz
Min. exposure time: 5 ms

Flash light

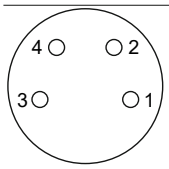


Triggered flash light with overdrive current and time-out for LED protection.
Max. flash time: 20 ms
Min. flash time: 100µs
Latency (trigger -> LED ON): max 30µs
Max. clock speed: 1 kHz
Max. duty cycle: 25 %

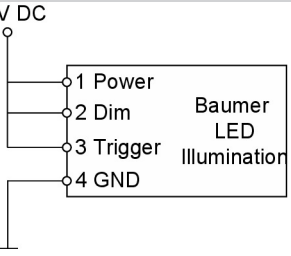
Pin assignment

M8 socket, 4-pin

Pin	Core color	Description
1	brown	24 VDC
2	white	Dim
3	blue	Trigger
4	black	Ground

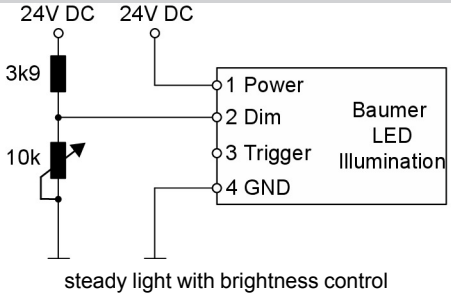


Connection examples

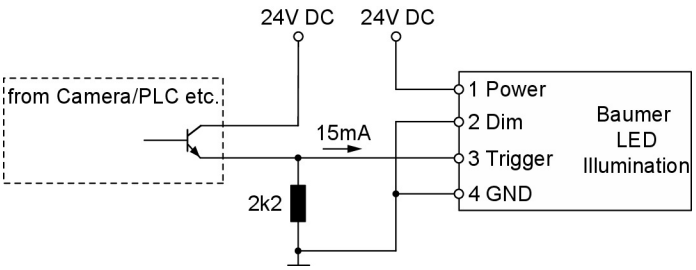


steady light

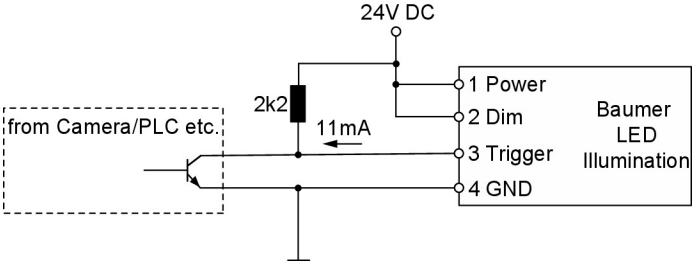
Connection examples



steady light with brightness control



flashed light PNP sourcing



flashed light with NPN sourcing

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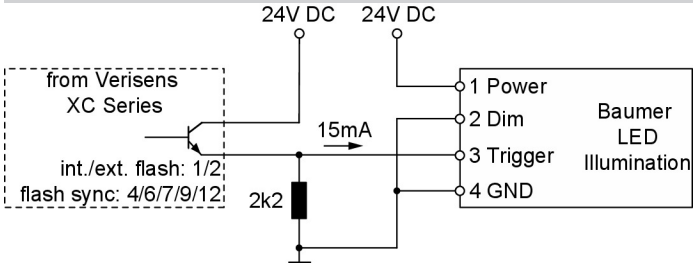
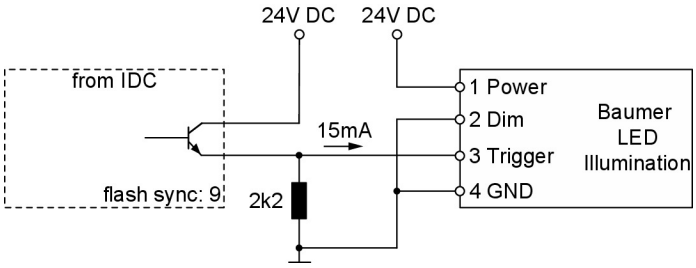
Connection examples



Connection scheme VeriSens®



Connection scheme IDC

Safety notes

Read the warning and application instructions carefully and completely before working with this device.
Only operate the illumination in compliance with the prescribed protective measures. It is essential to ensure compliance with the permissible ambient conditions.

- The device is only designed for indoor use.
- **Light:**
  Due to the risk of eye irritation or injury, it is not recommended to look directly into the light source. The illumination system must be switched off before installation and/or maintenance. The device must not be used if incorrect operation may cause personal injury.
- **Heat:**
  The surface temperature may exceed 60 °C if heat dissipation is inadequate or when the illumination is operated in flash mode with an excessively high duty cycle. Keep away from flammable materials by all means.
- **Electricity:**
  The housing is electrically isolated from the power supply ground. Exceeding the permissible input voltage Uin or ULED(+) may cause damage to the device or significantly shorten the service life of the LEDs within the device.
- **Usage:**
  Do not apply mechanical stress to the luminous area during operation. This will result in inhomogeneous light emission.
- **Cleaning:**
  The light surface must be cleaned with a conventional glass cleaner and a soft cleaning cloth. Avoid using other cleaning agents as these can damage the device.
- **Installation:**
  To maximize the service life of the LED, it is important to avoid heat build-up. To do so, install the lighting with a proper thermal connection. Be sure to hand-tighten the cables, do not overtighten.