



# LT3BC050100-IR850 | DATASHEET

OPTO ENGINEERING

## High-power LED backlights with integrated driver



### SPECIFICATIONS

#### Lighting specifications

Illumination area height	(mm)	50
Illumination area width	(mm)	100
Number of LEDs		72
Light color, peak wavelength		IR, 850 nm
Spectral FWHM	(nm)	35
Illuminance, continuous <sup>1</sup>	(klux)	0.02
Irradiance, continuous <sup>1</sup>	(W/m <sup>2</sup> )	91
Illuminance, boosted <sup>1</sup>	(klux)	0.03
Irradiance, boosted <sup>1</sup>	(W/m <sup>2</sup> )	189
Illuminance, strobe <sup>1</sup>	(klux)	0.06
Irradiance, strobe <sup>1</sup>	(W/m <sup>2</sup> )	284
Diffuser		yes
Collimation film		optional

#### Mechanical specifications

Height	(mm)	58.0
Width	(mm)	126.0
Thickness	(mm)	24.0
Mass	(g)	248
Clamping system		4x M4 threaded holes

#### Environment

Operating temperature	(°C)	0-40
Storage temperature	(°C)	0-50
Operating relative humidity	(%)	20-85, non condensing
Installation		Indoor use only
IP rating		IP54

### KEY ADVANTAGES

**High-power light output**

**Built-in driver** for continuous and strobe operations

**Industry standard 5 PIN M12 Connector**

with PNP/NPN/analog dimming input

**Optional collimating, polarizing and protective filters**

**Compact & robust design** with reduced thickness (24 mm) and thin edges

**Automatic shutdown** in case of overheating

**The LT3BC series** features high-performance LED backlights designed to provide high-power light output, excellent uniformity and contrast thanks to high-efficiency LEDs.

#### Electrical specifications

Operating mode		Continuous and strobe
Supply voltage	(V)	24
Current, continuous	(mA)	200
Power consumption, continuous	(W)	4.8
Current, boosted	(mA)	400
Power consumption, boosted	(W)	9.6
Peak current, strobe	(mA)	640
Peak power consumption, strobe	(W)	15.4
Min pulse duration	(μs)	3
Max pulse duration	(ms)	10
Max duty cycle	(%)	10
Typical pulse delay	(ns)	300
Typical jitter	(ns)	10
I/O interface		PNP logic input, NPN logic input, analog dimming input
Connector		1x M12 straight plug male connector
Included cable		not included

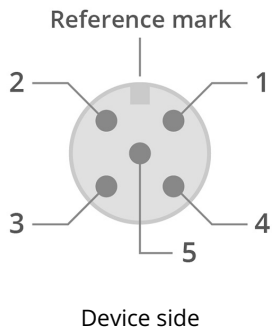
#### Eye safety

Risk group (CEI EN 62471:2010)	Exempt
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<sup>1</sup> At emitting surface.

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**CONNECTOR PINOUT**



Pin	Function
1	+24Vdc
2	NPN
3	GND
4	PNP
5	Analogue dimming (0-10V)

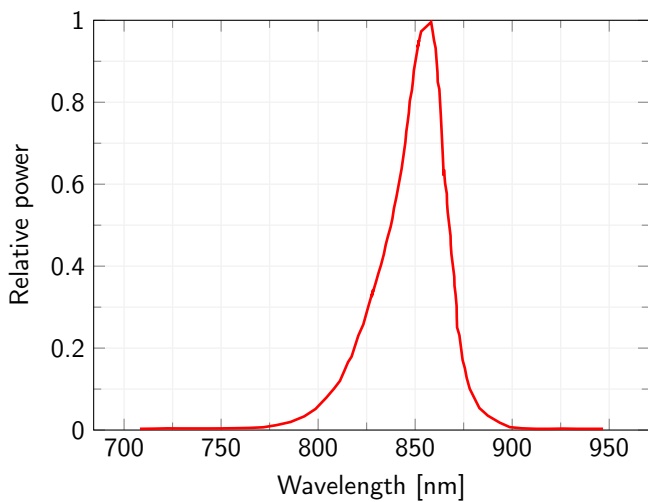
**COMPATIBLE PRODUCTS**

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

**LED color spectrum**



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