



LT3BC050100-IR850 | DATASHEET

OPTO ENGINEERING

High-power LED backlights with integrated driver



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.

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 ¹	(klux)	0.02
Irradiance, continuous ¹	(W/m ²)	91
Illuminance, boosted ¹	(klux)	0.03
Irradiance, boosted ¹	(W/m ²)	189
Illuminance, strobe ¹	(klux)	0.06
Irradiance, strobe ¹	(W/m ²)	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

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 dimming input, analog dimming input
Connector	M12 straight plug male connector
Included cable	1x 20 cm pigtail

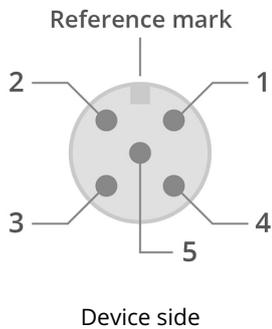
Eye safety

Risk group (CEI EN 62471:2010)	Exempt
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¹ At emitting surface.

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

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

