

LT3BC050050-IR850 | DATASHEET

High-power LED backlights with integrated driver











SPECIFICATIONS

Lighting specifications

Illumination area height	(mm)	50
Illumination area width	(mm)	50
Number of LEDs		36
Light color, peak wavelength		IR, 850 nm
Spectral FWHM	(nm)	35
Illuminance, continuos ¹	(klux)	0.02
Irradiance, continuos 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)	76.0
Thickness	(mm)	24.0
Mass	(g)	184
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, continuos	(mA)	100
Power consumption, continuos	(W)	2.4
Current, boosted	(mA)	200
Power consumption, boosted	(W)	4.8
Pear current, strobe	(mA)	320
Peak power consumption, strobe	(W)	7.7
Min pulse duration	(μs)	3
Max pulse duration	(ms)	10
Max duty cycle	(%)	10
Typical pulse delay	(ns)	300
Typical jitter	(ns)	10
		PNP logic input,
I/O interface		NPN logic input,
		analog dimming input
Connector		1x M12 straight plug
Connector		male connector
Included cable		not included
Eve safety		

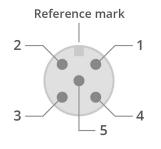
Eye safety

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



CONNECTOR PINOUT



Device side

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

1 8.0 0.6

LED color spectrum

Relative power 0.4 0.2 800 700 750 850 900 950

Wavelength [nm]

COMPATIBLE PRODUCTS

Full list of compatible products available here.



A wide selection of innovative machine vision components.