

LT2PRUP-R | DATASHEET

OPTO ENGINEERING

High power LED pattern projector, red, 625 nm



KEY ADVANTAGES

High efficiency LEDs for sharp edges, superior homogeneity and contrast

Built-in driver for continuous and strobe operations

Extreme brightness for high-speed quality control

5 PIN M12 Connector with PNP/NPN/analogue dimming input

Compatible with **standard C-mount lenses up to 1.1"**

Automatic shutdown in case of overheating

Interchangeable projection patterns

LTPRUP series features ultra-high power LED pattern projectors designed for fast image acquisition in high-speed applications, including planarity control of opaque products, robot guidance for fast pick and place and 3D profiling.

SPECIFICATIONS

Lighting specifications

Active area diameter	(mm)	17.6
Light color, peak wavelength		red, 625 nm
Spectral FWHM	(nm)	20
Illuminance, continuous ¹	(klux)	920
Irradiance, continuous ¹	(W/m ²)	6080
Illuminance, strobe ¹	(klux)	2880
Irradiance, strobe ¹	(W/m ²)	14150

Electrical specifications

Operating mode		Continuous and strobe
Supply voltage ²	(V)	24
Current ²	(A)	2.12
Power consumption ²	(W)	50.9
Peak power consumption ³	(W)	110.4
Max led forward current ³	(A)	3
Min pulse duration	(μs)	2
Max pulse duration	(ms)	10
Max duty cycle	(%)	10
Typical pulse delay	(%)	400
Typical jitter	(%)	100
I/O interface	PNP logic input, NPN logic input, analog dimming input	
Connector	1x M12 straight plug male connector	
Included cable	not included	

Mechanical specifications

Mount		C
Phase adj availability		Yes
Length	(mm)	118.5
Width	(mm)	77.3
Height	(mm)	77.3
Mass	(g)	530

Environment

Operating temperature	(°C)	0-40
Storage temperature	(°C)	0-50
Operating relative humidity	(%)	20-85, non condensing
Installation	Indoor use only	
IP rating	IP30	

Eye safety

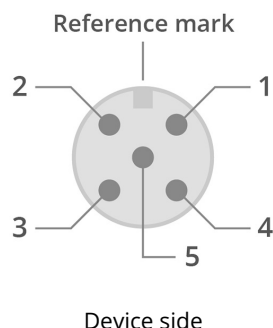
Risk group (CEI EN 62471:2010)	Risk group 1
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¹ At pattern emitting surface.

² Continuous mode, using the integrated electronic driver.

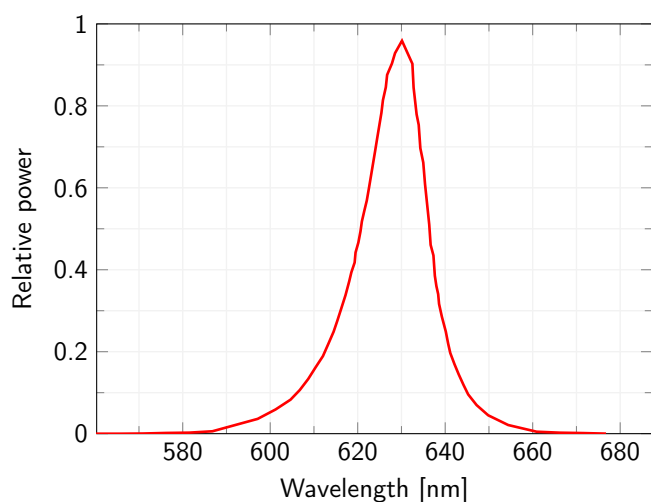
³ Strobe mode.

CONNECTOR PINOUT

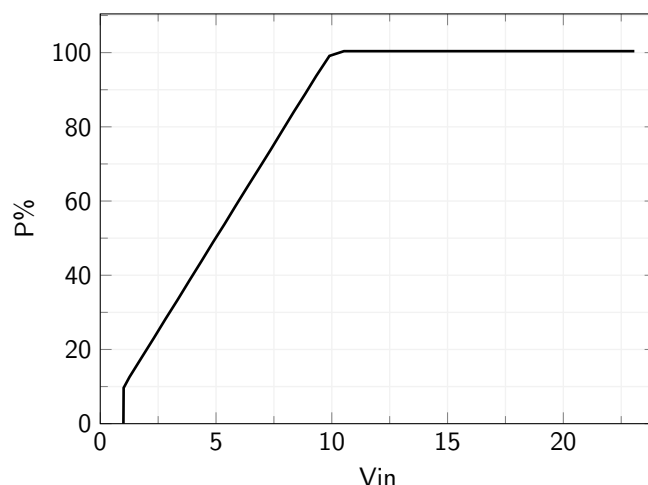


Pin	Function
1	+24Vdc
2	NPN
3	GND
4	PNP
5	Analog dimming (0-10V)

LED color spectrum



Analog input specification



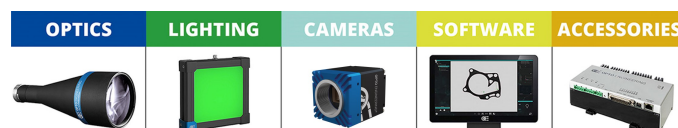
RECOMMENDED ACCESSORIES

Opto-Engineering® suggests the following accessories to power the camera:

- **CBLTM12-5P-2M**, Illumination cable PVC black, Side 1 M12 female connector 5 poles, Side 2 cable end - 2 m
- **CBLTM12-5P-5M**, Illumination cable PVC black, Side 1 M12 female connector 5 poles, Side 2 cable end - 5 m
- **CBLTM12-5P-10M**, Illumination cable PVC black, Side 1 M12 female connector 5 poles, Side 2 cable end - 10 m

COMPATIBLE PRODUCTS

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



A wide selection of innovative machine vision components.