



LT2PRXP-IR850 | DATASHEET

High power LED pattern projector, IR, 850 nm



KEY ADVANTAGES

High efficiency LEDs for sharp edges, superior homogeneity and contrast

Built-in driver for continuous and strobe operations

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

Compact version available



LTPRUP series features high-power LED pattern projectors designed for inline or offline applications including quality control, 3D reconstruction, dimensional measurement, planarity control, robot guidance and alignment applications.

SPECIFICATIONS

Lighting specifications

| | | |
|--------------------------------------|---------------------|------------|
| Active area diameter | (mm) | 17.6 |
| Light color, peak wavelength | | IR, 850 nm |
| Spectral FWHM | (nm) | 35 |
| Illuminance, continuous ¹ | (klux) | 0.885 |
| Irradiance, continuous ¹ | (W/m ²) | 4850 |
| Illuminance, strobe ¹ | (klux) | 2.7 |
| Irradiance, strobe ¹ | (W/m ²) | 13300 |

Electrical specifications

| | | |
|--------------------------------------|--|-----------------------|
| Operating mode | | Continuous and strobe |
| Power supply mode | | - |
| Supply voltage ² | | 24 |
| Current ² | | 0.62 |
| Power consumption ² | | 14.9 |
| Peak power consumption ³ | (W) | 45.6 |
| 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) | 100.7 |
| Width | (mm) | 59.1 |
| Height | (mm) | 59.1 |
| Mass | (g) | 332 |

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 2 |
|--------------------------------|--|--------------|

¹ At pattern emitting surface.

² Continuous mode, using the integrated electronic driver.

³ Strobe mode.

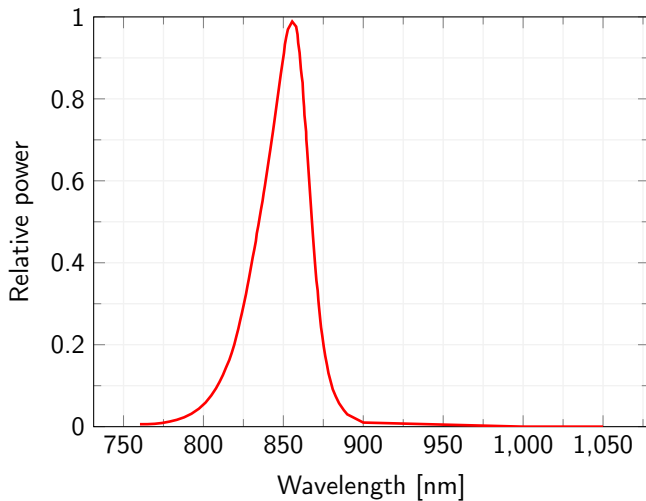
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CONNECTOR PINOUT

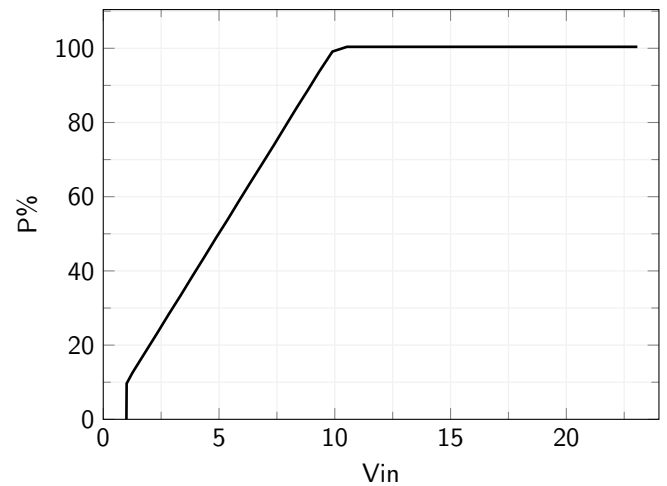


| Pin | Function |
|-----|------------------------|
| 1 | +24Vdc |
| 2 | NPN |
| 3 | GND |
| 4 | PNP |
| 5 | Analog dimming (0-10V) |

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.