

LTPRUP-R | DATASHEET

90W strobed LED pattern projector, red, 625 nm



SPECIFICATIONS

Lighting specifications

| | | |
|------------------------------|--------|-------------|
| Beam diameter | (mm) | 11 |
| Light color, peak wavelength | | red, 625 nm |
| Spectral FWHM | (nm) | 20 |
| Illuminance ¹ | (klux) | 65 |

Electrical specifications

| | | |
|---------------------------------|---------|--------------------------|
| Operating mode ² | | Strobe |
| Power supply mode | | Constant current driving |
| Peak power consumption | (W) | 90 |
| Max led forward current | (A) | 17 |
| Max pulse duration ³ | (ms) | 1 |
| Max duty cycle | (%) | 1.5 |
| Estimated MTBF ⁴ | (hours) | > 50000 |
| Connector | | M12 |
| Included cable | | CBLT001 |

Mechanical specifications

| | | |
|------------------------|------|-------|
| Mount | | C |
| Phase adj availability | | Yes |
| Length ⁵ | (mm) | 108.9 |
| Width | (mm) | 46.0 |
| Height | (mm) | 93.0 |
| Mass | (g) | 293 |

KEY ADVANTAGES

LED technology for perfectly sharp edges

Thinner lines, sharper edges and more even illumination than lasers.

Ultra high-power light output and strobe mode only operation

Low sensitivity to ambient light for the inspection of fast moving objects and an extended LED lifetime.

Repeatable results with dedicated strobe controllers

Compatible LTDV series ensures very stable illumination intensity.

Wide selection of projection patterns available

Chrome-on-glass patterns with geometrical accuracy down to 2 µm.

Compatible with any C-mount optics

LTPRUP series are the most powerful LED pattern projectors designed for fast image acquisition in high speed applications where the camera exposure time must be set to the minimum, including planarity control of opaque products, robot guidance for fast pick and place and 3D profiling.

Environment

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

Eye safety

| | |
|--------------------------------|--------|
| Risk group (CEI EN 62471:2010) | Exempt |
|--------------------------------|--------|

¹ With a 35mm lens, f/1.4 at 100mm working distance without projection pattern at maximum driving current. Estimated value

² To directly drive the LED, current control is necessary. External compatible controller from LTDV series must be used.

³ At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz. Contact us to check other admissible combinations of duty cycle-frequency-temperature.

⁴ At 25° C.

⁵ Including connector.

COMPATIBLE PRODUCTS

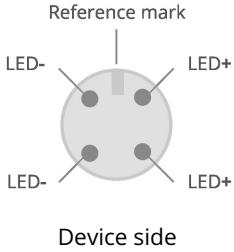
Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

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



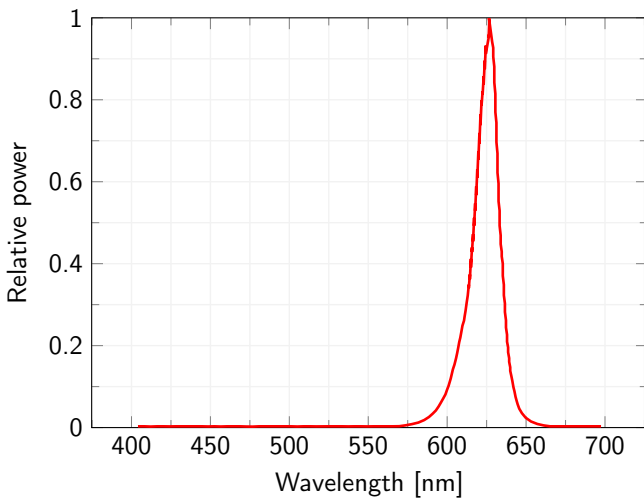
| Function | Cable color |
|----------|-------------|
| LED + | Brown |
| LED + | Black |
| LED - | Blue |
| LED - | White |

LTDV CONTROLLER

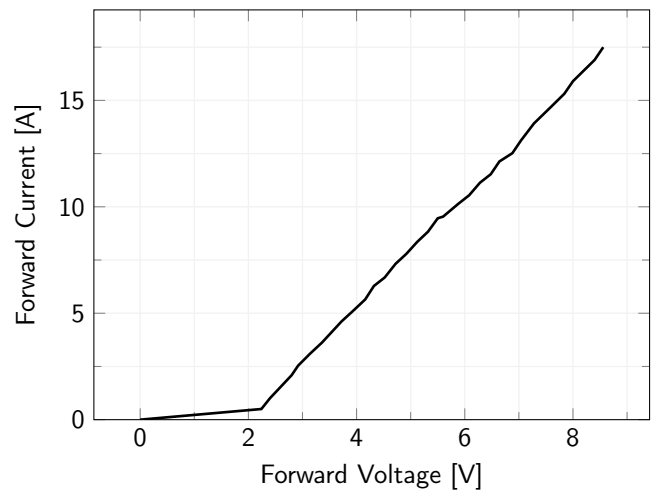
LTPRUP models are designed for strobe-mode only and can be precisely controlled using compatible **LTDV strobe controllers series**. The following LTDV controller are considered to be fully compatible with the LTPRUP series:

- **LTDVE1CH-40F**, Strobe controller 1 channel
- **LTDV1CH-17V**, Strobe controller 1 channel variable current 5 mA - 17A
- **LTDVE2CH-20F**, LED Strobe controller 2 channels, 20A/40A pulsed - 2A/4A continuous, fast version
- **LTDVE4CH-20**, LED Strobe controller 4 channels, 20A pulsed - 2A continuous
- **LTDV6CH**, Strobe controller 6 channels
- **LTDVE8CH-20**, LED Strobe controller 8 channels, 20A pulsed - 2A continuous

LED color spectrum



Forward Current Characteristics



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