



LTPRHP3W-G | DATASHEET

LED pattern projector, green, 525 nm



KEY ADVANTAGES

LED technology for perfectly sharp edges.

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

Wide selection of projection patterns available (custom-made upon request).

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

Compatible with any C-mount optics.

Precise light intensity adjustment.

Easy LED source replacement.

LTPRHP3W series features advanced and efficient LED projectors for structured light applications such as, quality control, 3D reconstruction, 3D profilometry, stereovision, planarity control, robot guidance for pick and place and alignment applications.

SPECIFICATIONS

Lighting specifications

| | | |
|------------------------------|--------|---------------|
| Beam diameter | (mm) | 11 |
| Light color, peak wavelength | | green, 525 nm |
| Spectral FWHM | (nm) | 40 |
| Illuminance ¹ | (klux) | 14 |

Electrical specifications

| | | |
|--|---------|-----------------------|
| Operating mode ² | | Continuous and strobe |
| Supply voltage ³ | (V) | 12-24 |
| Power consumption | (W) | 4.5 |
| Led forward voltage typical (max) ⁴ | (V) | 3.3 (4.0) |
| Max led forward current ⁵ | (mA) | 720 |
| Max pulse current ⁶ | (mA) | 2000 |
| Estimated MTBF ⁷ | (hours) | > 100000 |
| Connector | | M8 |
| Included cable | | CB244P1500 |

Mechanical specifications

| | | |
|------------------------|------|------|
| Mount | | C |
| Phase adj availability | | Yes |
| Diameter | (mm) | 38.5 |
| Length | (mm) | 90.8 |
| Mass | (g) | 153 |

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) | Risk group 1 |
|--------------------------------|--------------|

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

² To pulse LTPRHP3W, models built in electronics must be bypassed in order to drive the LED directly

³ Tolerance ±10%

⁴ Max continuous LED driving current is supplied through the built-in electronics. No external controller is required

⁵ At max forward current. Tolerance is ± 0.06V on forward voltage measurements

⁶ At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info)

⁷ At 55°C, 720mA

COMPATIBLE PRODUCTS

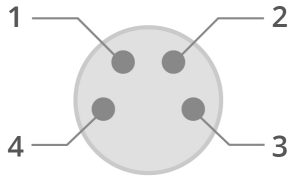
Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

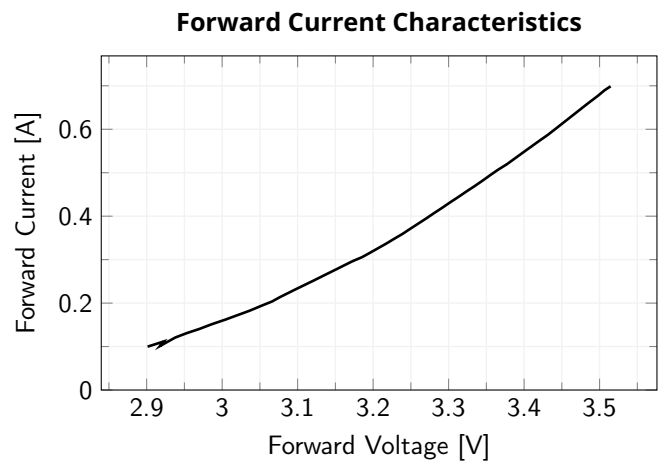
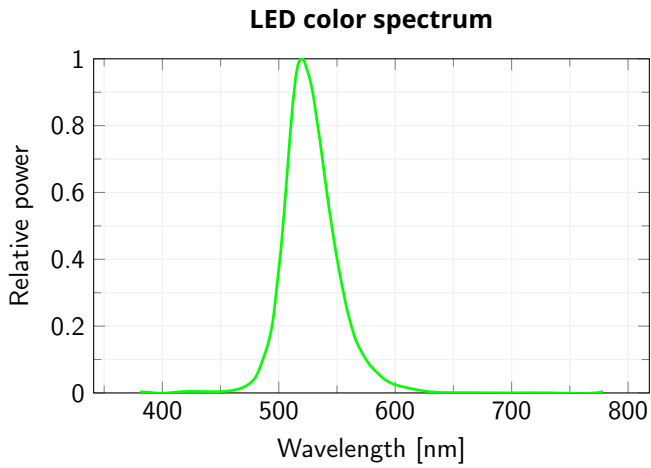
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CONNECTOR PINOUT



Device side

| Pin | Function | Cable color |
|-----|-------------------------|--------------|
| 1 | Earth | Yellow/Green |
| 2 | Ground | Black |
| 3 | Anode | Blue |
| 4 | Power supply (+12/24 V) | Brown |



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