



# LTPRHP3W-IR850 | DATASHEET

## LED pattern projector, IR, 850 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		IR, 850 nm
Spectral FWHM	(nm)	30
Illuminance <sup>1</sup>	(klux)	n.a.

#### Electrical specifications

Operating mode <sup>2</sup>		Continuous and strobe
Supply voltage <sup>3</sup>	(V)	12-24
Power consumption	(W)	4.5
Led forward voltage typical (max) <sup>4</sup>	(V)	1.5 (2)
Max led forward current <sup>5</sup>	(mA)	720
Max pulse current <sup>6</sup>	(mA)	2000
Estimated MTBF <sup>7</sup>	(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)	Exempt
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<sup>1</sup> With a 35mm lens, *f*/1.4 at 100mm working distance without projection pattern at maximum driving current. Estimated value

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

<sup>3</sup> Tolerance ±10%

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

<sup>5</sup> At max forward current. Tolerance is ± 0.06V on forward voltage measurements

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

<sup>7</sup> At 55°C, 720mA

### COMPATIBLE PRODUCTS

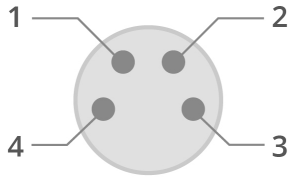
Full list of compatible products available [here](#).



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.

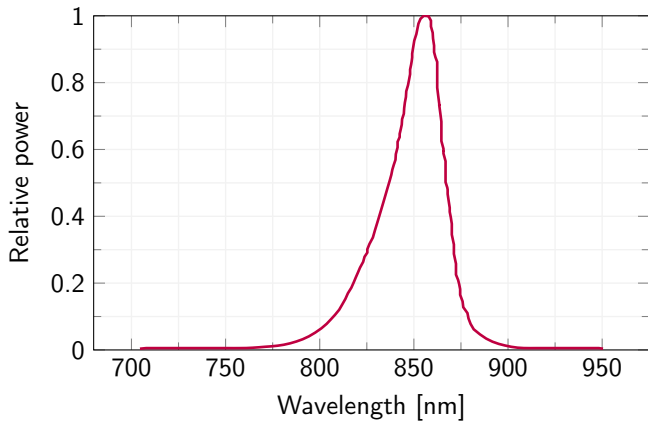
**CONNECTOR PINOUT**



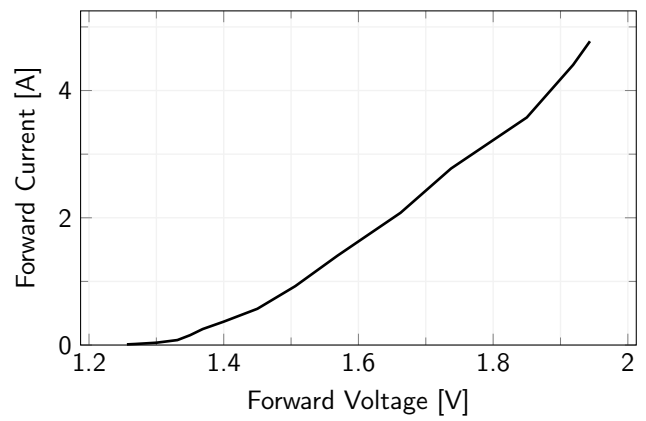
Device side

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

**LED color spectrum**



**Forward Current Characteristics**



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