LTPRSMHP3W-W | DATASHEET

OPTO ENGINEERING

Tilting LED pattern projector 3W, white, 6000 K

KEY ADVANTAGES

Scheimpflug tilt adjustment compatible with C-mount optics
Focus is maintained even when the pattern is tilted.

Light condenser focusing mechanism
For excellent optical coupling and light throughput.

Enhanced optical power
High numerical aperture condenser lens.

LTPRSMHP3W series re LED pattern projectors specifically designed for the most demanding 3D profiling and measurement applications. Triangulation techniques require that structured light is directed onto a sample at a considerable angle from vertical. Tilting the light source pattern becomes essential to ensure that the patterned light is properly focused across the entire sample surface.

SPECIFICATIONS

Lighting specifications

Active Area	(mm)	8 x 8
Max pattern tilt	(°)	45
Light color, peak wavelength		white, 6000 K
Spectral FWHM	(nm)	-
Illuminance[1]	(klux)	30

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)	2.8 (-)
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 LTPRSMHP3W, models built in electronics must be bypassed in order to drive the LED directly
[3] Tolerance $\pm$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 $\pm$ 0.06V on forward voltage measurements
[6] At pulse width $\leq$ 10 ms and duty cycle $\leq$ 10%. Built-in electronics board must be bypassed (see tech info)
[7] At 55°C, 720mA

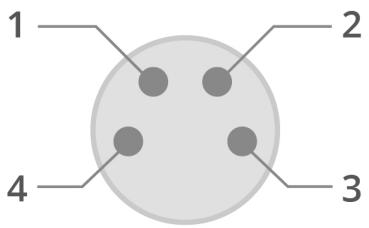
COMPATIBLE PRODUCTS

Full list of compatible products available *here*.

A wide selection of innovative machine vision components.

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.

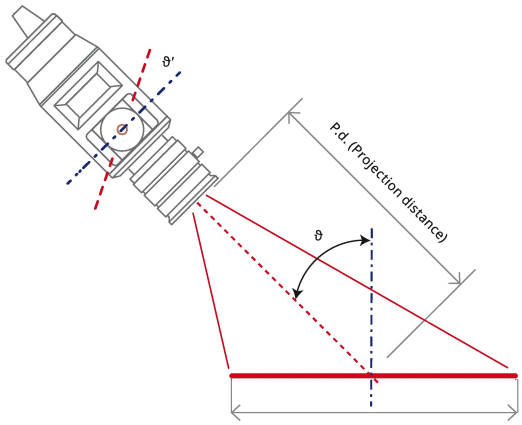
CONNECTOR PINOUT

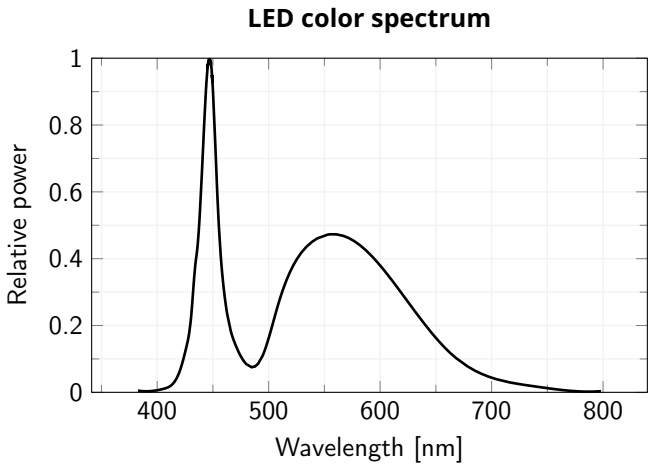


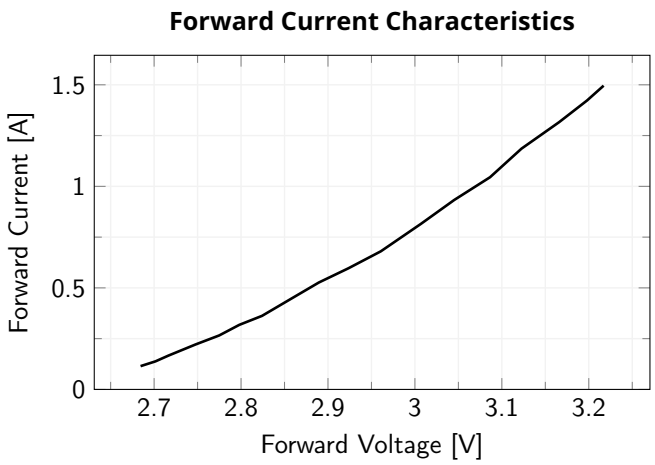
Device side

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

SCHEIMPFLUG PROJECTION CONFIGURATION







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