



# LTRNHP210R20 | DATASHEET

High power LED ring illuminator, oblique type, inner diameter 116.5mm, red, 625 nm



### KEY ADVANTAGES

High power working both in continuous and strobe mode.

Brighter than LTRNOB series also in continuous mode.

Mechanically fitting Opto Engineering optics

Each lens integrates specific mechanical interfaces.

Specific illumination geometry

Illumination path matches Opto Engineering lenses viewing angle and numerical aperture.

Integrated thermal sensor.



**LTRNOBHP series** are the high power version of LTRNOB series LED ring illuminators and are specifically designed to match Opto Engineering® 360° view Optics.

### SPECIFICATIONS

#### Lighting specifications

Illumination area outer diameter	(mm)	182.0
Illumination area inner diameter	(mm)	117.5
Emission angle	(°)	20
Optimal working distance	(mm)	50-100
Number of LED		81
Light color, peak wavelength		red, 625 nm
Spectral FWHM	(nm)	20
Illuminance <sup>1</sup>	(klux)	n.a.
Diffuser		yes

#### Electrical specifications

Supply Voltage <sup>2</sup>	(V)	24
Current <sup>3</sup>	(mA)	2090
Power consumption	(W)	50.0
Max pulse current <sup>4</sup>	(A)	9.0
Peak power consumption	(W)	217
Max pulse duration	(ms)	1
Max duty Cycle	(%)	1.5
Estimated MTBF	(hours)	> 20000
Connector		WEIPU SP2110/P5
Included cable		CBLT010

<sup>1</sup> Measured at minimum working distance

<sup>2</sup> ±2%.

<sup>3</sup> With constant driving voltage

<sup>4</sup> At 25°C. At max pulse width (1ms), max pulse frequency = 15 Hz

#### Mechanical specifications

Outer diameter	(mm)	210.0
Inner diameter	(mm)	116.5
Height	(mm)	42.0
Mass	(g)	1200
Clamping system		8x M4 threaded holes

#### Environment

Operating temperature	(°C)	0-40
Storage temperature	(°C)	-20-+60
Operating relative humidity	(%)	20-85, non condensing
Installation		Indoor use only

#### Eye safety

Risk group (CEI EN 62471:2010)		Risk group 2
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### COMPATIBLE PRODUCTS

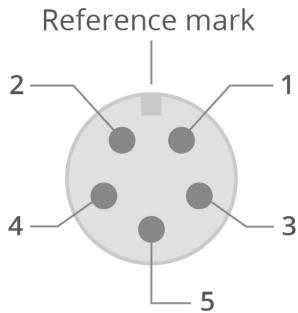
Full list of compatible products available [here](#).



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



Devide side

Pin	Function	Description	Cable Color
1	LDC+	LED+ Continuous mode	Brown + White
2	NTC+	Thermal sensor input. Positive terminal	Pink
3	LD-	LED-	Green + Yellow
4	LDS+	LED+ Strobe mode	Red + Blue
5	NTC-	Thermal sensor input. Negative terminal	Grey

LED color spectrum

