

# LTCLHP192-R

Telecentric HP illuminator, beam diameter 250 mm, red

## SPECIFICATIONS

### Optical specifications

Beam diameter	(mm)	250
Working distance range	(mm)	350 - 700
Light color, peak wavelength (1)		red, 630 nm

### Mechanical specifications

Length (2)	(mm)	608.2
Outer diameter	(mm)	260
Mass	(g)	9799

### Electrical specifications

#### Device power ratings

DC voltage minimum (3)	(V)	12
DC voltage maximum (3)	(V)	24
Power consumption	(W)	< 2.5
Max LED forward current (4)	(mA)	350
Cables		CB244P1500 included

#### LED power ratings

Forward voltage (typical) (5)	(V)	2.4
Forward voltage (max) (5)	(V)	3.00
Max pulse current (6)	(mA)	2000

#### Eye safety

Risk group according to CEI EN 62471:2010	Exempt
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Last update: 2021-06-22

## NOTES

1. Opto Engineering® recommends green light for high precision measurement applications
2. Nominal value, with no spacers in place
3. Tolerance ± 10%
4. Used in continuous (not pulsed) mode
5. At max forward current. Tolerance is ±0.06V on forward voltage measurements
6. At pulse width ≤ 10 ms, duty cycle ≤ 10% condition. Built-in electronics board must be bypassed (see tech info)

## COMPATIBLE PRODUCTS

Despite the efforts made to generate an error-free compatibility list, we always recommend to consult the Opto Engineering® **technical support** department before purchasing a compatible product. Opto Engineering® shall not be liable for any damage or malfunctioning caused by the incorrect selection of a compatible product.



TC3MHR-TC5MHR CORE PLUS series

Compact large-FOV telecentric lenses for sensors up to 4/3"

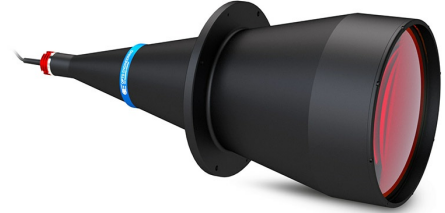
**TCCP3MHR192-C** Ultra compact bi-telecentric lens for matrix detectors up to 1.1", magnification 0.064x

**TCCP5MHR192-F** Ultra compact bi-telecentric lens for matrix detectors up to 4/3", magnification 0.088x

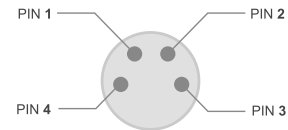


TC series

Bi-telecentric lenses for sensors up to 2/3"



## CONNECTION



Device side - male pins

Front view

Pinout reference

Pin	Function
1	Earth
2	GND
3	LED Anode
4	Power supply (+12±24 V)



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.

TC23172	Bi-telecentric lens for 2/3" detectors, magnification 0.051 x, C-mount
TC13192	Bi-telecentric lens for 1/3" detectors, magnification 0.025 x, C-mount
TC12192	Bi-telecentric lens for 1/2" detectors, magnification 0.033 x, C-mount
TC23192	Bi-telecentric lens for 2/3" detectors, magnification 0.046 x, C-mount



TC CORE PLUS series

Compact large-FOV bi-telecentric lenses for sensors up to 2/3"

TCCP12192	Ultra compact bi-telecentric lens for matrix detectors up to 1/1.8", magnification 0.033x
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TC1MHR-TC4MHR series

Telecentric lenses for sensors up to 4/3"

TC1MHR192-C	High resolution telecentric lens for 1/1.2" detectors, magnification 0.056x, C-mount
TC2MHR192-C	High resolution telecentric lens for 1" detectors, magnification 0.067x, C-mount
TC2MHR192-F	High resolution telecentric lens for 1" detectors, magnification 0.067x, F-mount
TC2MHR192-E	High resolution telecentric lens for 1" detectors, magnification 0.067x, mount M42X1 FD=16
TC3MHR192-C	High resolution telecentric lens for 1.1" detectors, magnification 0.075x, C-mount
TC4MHR192-C	High resolution telecentric lens for 4/3" detectors, magnification 0.092x, C-mount
TC4MHR192-F	High resolution telecentric lens for 4/3" detectors, magnification 0.092x, F-mount
TC4MHR192-E	High resolution telecentric lens for 4/3" detectors, magnification 0.092x, mount M42X1 FD=16



TC16M series

Telecentric lenses for sensors up to 43.3 mm and 8k line scan cameras

TC16M192	Telecentric lens for 35 mm detectors, magnification 0.187x, F-mount
TC16M192-Q	Telecentric lens for 35 mm detectors, magnification 0.187x, M58x0.75 FD = 6.56



TC12K series

Telecentric lenses for sensors up to 62 mm and 12k line scan cameras

TC12K192	Telecentric lens for 12k and 16k line scan cameras, magnification 0.320 x, M72 x 0.75 mount
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TCDP series

Double port bi-telecentric lens for detector up to 2/3"

TCDP2X192	Double magnification bi-telecentric lens, for detectors up to 2/3"
TCDP4X192	Double magnification bi-telecentric lens, for detectors up to 2/3"



Accessories

Accessories and add-ons to make the most of Opto Engineering® lenses.

Diffuser cap for LTCLHP illuminators

LED1W-R	Replacement LED source, red
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CMHO series

Clamping mechanics for lenses

CMHO192R	Clamping mechanics for TCxx192 lenses and LTCLHP192-X illuminators rotation type
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LTSCHP series

High-performance replacement LED modules

LTSCHP1W-R	Replacement LED module, red
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PS series

Power supplies



CB series

Cables

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[CB244P1500](#) Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels

[CB244P1500L](#) Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels

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LTIC series

LED lighting controllers

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[LTIC1CH-A1-4](#) Analogue lighting controller unit, 4A, 24V

[LTIC1CH-D1-4](#) Digital lighting controller unit, 4A, 24V

[LTICOBUL1000CH1-24VUSTB](#) 24VDC analog lighting controller 1 channel, UK power cord, Illumination cable, side A SM 3 way male connector, side B terminal blocks connector, 24V - 3m

[LTICOBUL1000CH1-24VEUTB](#) 24VDC analog lighting controller 1 channel, UK power cord, Illumination cable, side A SM 3 way male connector, side B terminal blocks connector, 24V - 3m

[LTICOBUL1000CH1-24VUKTB](#) 24VDC analog lighting controller 1 channel, UK power cord, Illumination cable, side A SM 3 way male connector, side B terminal blocks connector, 24V - 3m

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