



LTCLHP096-W

Telecentric HP illuminator, beam diameter 120 mm, white

SPECIFICATIONS

Optical specifications

Beam diameter	(mm)	120
Working distance range	(mm)	200 - 350
Light color, peak wavelength (1)		white

Mechanical specifications

Length (2)	(mm)	322.2
Outer diameter	(mm)	143
Mass	(g)	2161

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)	2.78
Forward voltage (max) (5)	(V)	-
Max pulse current (6)	(mA)	2000

Eye safety

Risk group according to CEI EN 62471:2010	Risk group 1
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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.



TC series

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

TC23085	Bi-telecentric lens for 2/3" detectors, magnification 0.104 x, C-mount
TC13096	Bi-telecentric lens for 1/3" detectors, magnification 0.050 x, C-mount
TC12096	Bi-telecentric lens for 1/2" detectors, magnification 0.068 x, C-mount
TC23096	Bi-telecentric lens for 2/3" detectors, magnification 0.093 x, C-mount

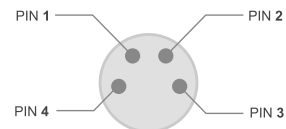


TC CORE series

Compact 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.

TCCR12096	Bi-telecentric CORE lens for 1/2" detectors, magnification 0.068 x, C-mount
TCCR23096	Bi-telecentric CORE lens for 2/3" detectors, magnification 0.093 x, C-mount



TC1MHR-TC4MHR CORE series

Compact telecentric lenses for sensors up to 4/3"

TCCR2M096-C	Telecentric CORE lens for 1" detectors, magnification 0.137 x, C-mount
TCCR2M096-E	Telecentric CORE lens for 1" detectors, magnification 0.137 x, M42x1 FD=16
TCCR4M096-C	Telecentric CORE lens for 4/3" detectors, magnification 0.186 x, C-mount
TCCR4M096-F	Telecentric CORE lens for 4/3" detectors, magnification 0.186 x, F-mount
TCCR4M096-E	Telecentric CORE lens for 4/3" detectors, magnification 0.186 x, M42x1 FD=16



TC1MHR-TC4MHR series

Telecentric lenses for sensors up to 4/3"

TC1MHR096-C	High resolution telecentric lens for 1/1.2" detectors, magnification 0.114x, C-mount
TC2MHR096-C	High resolution telecentric lens for 1" detectors, magnification 0.137x, C-mount
TC2MHR096-F	High resolution telecentric lens for 1" detectors, magnification 0.137x, F-mount
TC2MHR096-E	High resolution telecentric lens for 1" detectors, magnification 0.137x, mount M42X1 FD=16
TC3MHR096-C	High resolution telecentric lens for 1.1" detectors, magnification 0.153x, C-mount
TC4MHR096-C	High resolution telecentric lens for 4/3" detectors, magnification 0.186x, C-mount
TC4MHR096-F	High resolution telecentric lens for 4/3" detectors, magnification 0.186x, F-mount
TC4MHR096-E	High resolution telecentric lens for 4/3" detectors, magnification 0.186x, mount M42X1 FD=16



TC16M series

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

TC16M096	Telecentric lens for 35 mm detectors, magnification 0.380 x, F-mount
TC16M096-Q	Telecentric lens for 35 mm detectors, magnification 0.380 x, mount M58x0.75 FD = 6.56



TC12M series

Telecentric lenses for sensors up to APS-H and 4k line scan cameras

TC12M096-F	High resolution telecentric lenses, magnification 0.306, WD 256.0, F mount
TC12M096-J	High resolution telecentric lenses, magnification 0.306, WD 256.1, M42x1 FD12



TCDP series

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

TCDP2X096	Double magnification bi-telecentric lens, for detectors up to 2/3"
TCDP4X096	Double magnification bi-telecentric lens, for detectors up to 2/3"



Accessories

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

LED1W-W	Replacement LED source, white
	Diffuser cap for LTCLHP illuminators



CMMR series

45° first surface mirrors

CMMR096	45° first surface mirror for 143 mm clamping diameter optics
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WI series

Protective windows for lenses

WI096	Protective window for 143 mm clamping diameter optics
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CMHO series

Clamping mechanics for lenses

[CMHO096](#) Clamping mechanics for TCxx085, TCxx096 lenses and LTCLHP096-X illuminators



LTSCHP series

High-performance replacement LED modules

[LTSCHP1W-W](#) Replacement LED module, white



PS series

Power supplies

[RT-SDR-120-24](#) 24VDC DIN rail power supply



CB series

Cables

[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



CMT series

Precision alignment mechanics for lenses

[CMTH096](#) Precision alignment mechanics for telecentric optics 096



LTIC series

LED lighting controllers

[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
