

# LTCLCR096-R

Telecentric CORE illuminator, beam dimensions  $\varnothing = 120$ ;  $x = 99$ , red

## SPECIFICATIONS

### Optical specifications

Minimum beam shape dimension (7)	(mm)	$\varnothing = 120$ ; $x = 99$
Working distance range	(mm)	200 - 350
Light color, peak wavelength (5)		red, 630 nm

### Electrical specifications

#### Device power ratings

DC voltage minimum(1)	(V)	12
DC voltage maximum(1)	(V)	24
Power consumption	(W)	< 2.5
Max LED forward current (2)	(mA)	350

#### LED power ratings

Forward voltage (typical) (3)	(V)	3.3
Forward voltage (max) (3)	(V)	4.00
Max pulse current (4)	(mA)	2000

### Mechanical specifications

A	(mm)	139
B	(mm)	172
C (6)	(mm)	223
Mass	(g)	4161

### Eye safety

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

## NOTES

1. Tolerance  $\pm 10\%$
2. Used in continuous (not pulsed) mode.
3. At max forward current. Tolerance is  $\pm 0.06V$  on forward voltage measurements.
4. At pulse width  $\leq 10$  ms, duty cycle  $\leq 10\%$  condition. Built-in electronics board must be bypassed (see tech info).
5. Opto Engineering® recommends green light for high precision measurement applications.
6. Nominal value, with no spacers in place.
7. Beam shape is not circular. See [Tech Info](#) for minimum beam dimensions.

## COMPATIBLE PRODUCTS

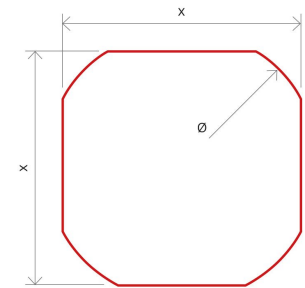
Despite the efforts made to generate an error-free compatibility list, we always recommend to consult the Opto Engineering® technical support department before purchasing a compatible product. Opto Engineering® shall not be liable for any damage or malfunctioning caused by the incorrect selection of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



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

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



Minimum beam shape dimensions ( $\varnothing, x$ )

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.



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

**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



TCSM series

3D bi-telecentric lenses with Scheimpflug adjustment

**TCSM096** 3D bi-telecentric lens with Scheimpflug adjustment



TC1MHR-TC4MHR CORE series

Compact telecentric lenses for sensors up to 4/3"

**TCCR1M096-C** Telecentric CORE lens for 1/1.2" detectors, magnification 0.114 x, mount C, WD=278.6

**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

**TCCR3M096-C** Telecentric CORE lens for 1.1" detectors, magnification 0.153 x, mount C, WD=278.6

**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



LTSCHP series

High-performance replacement LED modules

**LTSCHP1W-R** Replacement LED module, red



LTDV series

LED lighting strobe controllers

**LTDV1CH-17V** Strobe controller 1 channel variable current 5 mA - 17A



CMHOCR series

Clamping mechanics for CORE lenses

[CMHOCR096](#) Clamping mechanics for CORE telecentric lenses and illuminators TCCRxx96 and LTCLCR096-x

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PS series

Power supplies

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

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CMPTCR series

Mounting plates for CORE optical benches

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[CMPTCR096](#) Mechanical components designed for CORE telecentric lenses and illuminators Ø 96mm

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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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CMT series

Precision alignment mechanics for lenses

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[CMTHCR096](#) Precision alignment mechanics for CORE telecentric optics 096

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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

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[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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