

LTCLHP016-R

Telecentric HP illuminator, beam diameter 20 mm, red

SPECIFICATIONS

Optical specifications

Beam diameter	(mm)	20
Working distance range	(mm)	35 - 70
Light color, peak wavelength (1)		red, 630 nm

Mechanical specifications

Length (2)	(mm)	99.9
Outer diameter	(mm)	38
Mass	(g)	195

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.



TCEL series

Telecentric optics with liquid lenses technology

TCEL050 Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 0.50X



TC series

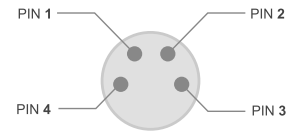
Bi-telecentric lenses for sensors up to 2/3"

TC13016 Bi-telecentric lens for 1/3" detectors, magnification 0.290 x, C-mount

TC12016 Bi-telecentric lens for 1/2" detectors, magnification 0.385 x, C-mount



CONNECTION



Device side - male pins
Front view

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.

TC23016 Bi-telecentric lens for 2/3" detectors, magnification 0.528 x, C-mount



TCLWD series

132 mm working distance telecentric lenses for sensors up to 2/3"

TCLWD050 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 0.50x, C-mount

TCLWD066 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 0.66x, C-mount

TCLWD075 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 0.75x, C-mount

TCLWD100 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 1.00x, C-mount

TCLWD150 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 1.50x, C-mount

TCLWD250 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 2.50x, C-mount

TCLWD350 Long working distance telecentric lens for 2/3" detectors, WD 132.3 mm, magnification 3.50x, C-mount



TC1MHR-TC4MHR series

Telecentric lenses for sensors up to 4/3"

TC1MHR016-C High resolution telecentric lens for 1/1.2" detectors, magnification 0.639x, C-mount

TC2MHR016-C High resolution telecentric lens for 1" detectors, magnification 0.767x, C-mount

TC2MHR016-F High resolution telecentric lens for 1" detectors, magnification 0.767x, F-mount

TC2MHR016-E High resolution telecentric lens for 1" detectors, magnification 0.767x, mount M42X1 FD=16

TC3MHR016-C High resolution telecentric lens for 1.1" detectors, magnification 0.850x, C-mount

TC4MHR016-C High resolution telecentric lens for 4/3" detectors, magnification 1.055x, C-mount

TC4MHR016-F High resolution telecentric lens for 4/3" detectors, magnification 1.055x, F-mount

TC4MHR016-E High resolution telecentric lens for 4/3" detectors, magnification 1.055x, mount M42X1 FD=16



TC12M series

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

TC12M016-F High resolution telecentric lenses, magnification 1.825, WD 42.3, F mount

TC12M016-J High resolution telecentric lenses, magnification 1.825, WD 42.4, M42x1 FD12



CMBS series

45° beam splitters

CMBS016 45° beam splitter with mount for 37.7 mm clamping diameter optics



Accessories

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

Diffuser cap for LTCLHP illuminators

LED1W-R Replacement LED source, red



CMHO series

Clamping mechanics for lenses

CMHO016 Clamping mechanics for TCxx016 lenses and LTCLHP016-X illuminators



LTSCHP series

High-performance replacement LED modules

LTSCHP1W-R Replacement LED module, red



PS series

Power supplies

RT-SDR-120-24	24VDC DIN rail power supply
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CB series

Cables

CB244P1500	Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels
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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

LTIC1CH-A1-4	Analogue lighting controller unit, 4A, 24V
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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
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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
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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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