

LTCLHP016-G

Telecentric HP illuminator, beam diameter 20 mm, green

SPECIFICATIONS

Optical specifications

Beam diameter	(mm)	20
Working distance range	(mm)	35 - 70
Light color, peak wavelength (1)		green, 520 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)	3.3
Forward voltage (max) (5)	(V)	4.00
Max pulse current (6)	(mA)	2000

Eye safety

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

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.



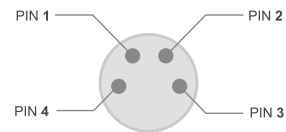
TCEL series

Telecentric optics with liquid lenses technology

TCEL050	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 0.50X
TCEL066	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 0.67X
TCEL075	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 0.75X
TCEL100	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 1.00X
TCEL150	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 1.50X
TCEL250	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 2.50X
TCEL350	Telecentric lens for 2/3" sensors with integrated liquid lens, mag. 3.50X



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.

 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
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-G	Replacement LED source, green
---------	-------------------------------

 CMHO series
Clamping mechanics for lenses

CMHO016	Clamping mechanics for TCxx016 lenses and LTCLHP016-X illuminators
---------	--

 LTSCHP series

High-performance replacement LED modules

LTSCHP1W-G	Replacement LED module, green
LTSCHP1W-GZ	Replacement LED module with diffuser, green



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
-----------------------------	---



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 5M 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 5M 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 5M 3 way male connector, side B terminal blocks connector, 24V - 3m
---	---