



LTCLHP016-W

Telecentric HP illuminator, beam diameter 20 mm, white

SPECIFICATIONS

Optical specifications

| | | |
|----------------------------------|------|---------|
| Beam diameter | (mm) | 20 |
| Working distance range | (mm) | 35 - 70 |
| Light color, peak wavelength (1) | | white |

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

Eye safety

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

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

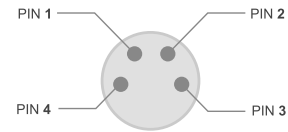
Bi-telecentric lenses for sensors up to 2/3"

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

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.

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



Accessories

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

LED1W-W Replacement LED source, white

Diffuser cap for LTCLHP illuminators



CMBS series

45° beam splitters

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



CMHO series

Clamping mechanics for lenses

CMHO016 Clamping mechanics for TCxx016 lenses and LTCLHP016-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 |
|-------------|---|



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 |
|-------------------------|---|