



LTCLHP048-R

Telecentric HP illuminator, beam diameter 60 mm, red

SPECIFICATIONS

Optical specifications

| | | |
|----------------------------------|------|-------------|
| Beam diameter | (mm) | 60 |
| Working distance range | (mm) | 90 - 180 |
| Light color, peak wavelength (1) | | red, 630 nm |

Mechanical specifications

| | | |
|----------------|------|-------|
| Length (2) | (mm) | 187.2 |
| Outer diameter | (mm) | 75 |
| Mass | (g) | 585 |

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

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"

| | |
|---------|--|
| TC13048 | Bi-telecentric lens for 1/3" detectors, magnification 0.098 x, C-mount |
| TC12048 | Bi-telecentric lens for 1/2" detectors, magnification 0.134 x, C-mount |
| TC23048 | Bi-telecentric lens for 2/3" detectors, magnification 0.184 x, C-mount |

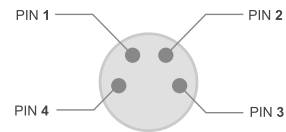


TC CORE series

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.

TCCR12048 Bi-telecentric CORE lens for 1/2" detectors, magnification 0.134 x, C-mount

TCCR23048 Bi-telecentric CORE lens for 2/3" detectors, magnification 0.184 x, C-mount



TC1MHR-TC4MHR CORE series

Compact telecentric lenses for sensors up to 4/3"

TCCR2M048-C Telecentric CORE lens for 1" detectors, magnification 0.268 x, C-mount

TCCR2M048-E Telecentric CORE lens for 1" detectors, magnification 0.268 x, M42x1 FD=16

TCCR4M048-C Telecentric CORE lens for 4/3" detectors, magnification 0.369 x, C-mount

TCCR4M048-F Telecentric CORE lens for 4/3" detectors, magnification 0.369 x, F-mount

TCCR4M048-E Telecentric CORE lens for 4/3" detectors, magnification 0.369 x, M42x1 FD=16



TC1MHR-TC4MHR series

Telecentric lenses for sensors up to 4/3"

TC1MHR048-C High resolution telecentric lens for 1/1.2" detectors, magnification 0.222x, C-mount

TC2MHR048-C High resolution telecentric lens for 1" detectors, magnification 0.268x, C-mount

TC2MHR048-F High resolution telecentric lens for 1" detectors, magnification 0.268x, F-mount

TC2MHR048-E High resolution telecentric lens for 1" detectors, magnification 0.268x, mount M42X1 FD=16

TC3MHR048-C High resolution telecentric lens for 1.1" detectors, magnification 0.303x, C-mount

TC4MHR048-C High resolution telecentric lens for 4/3" detectors, magnification 0.369x, C-mount

TC4MHR048-F High resolution telecentric lens for 4/3" detectors, magnification 0.369x, F-mount

TC4MHR048-E High resolution telecentric lens for 4/3" detectors, magnification 0.369x, mount M42X1 FD=16



TC16M series

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

TC16M048 Telecentric lens for 35 mm detectors, magnification 0.751 x, F-mount

TC16M048-Q Telecentric lens for 35 mm detectors, magnification 0.751 x, mount M58x0.75 FD =6.56



TC12M series

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

TC12M048-F High resolution telecentric lenses, magnification 0.635, WD 131.1, F mount

TC12M048-J High resolution telecentric lenses, magnification 0.635, WD 131.2, M42x1 FD12



CMBS series

45° beam splitters

CMBS048 45° beam splitter with mount for 75 mm clamping diameter optics



CMMR series

45° first surface mirrors

CMMR048 45° first surface mirror for 75 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



WI series

Protective windows for lenses

WI048 Protective window for 75 mm clamping diameter optics



CMHO series

Clamping mechanics for lenses

CMHO048 Clamping mechanics for TCxx048 lenses and LTCLHP048-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



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
