# LTCLHP023-R

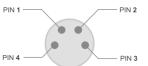
Telecentric HP illuminator, beam diameter 16 mm, red

## SPECIFICATIONS

Optical specifications		
Beam diameter	(mm)	16
Working distance range	(mm)	45 - 90
Light color, peak wavelength (1)		red, 630 nm
Mechanical specifications		
Length (2)	(mm)	96.8
Outer diameter	(mm)	28
Mass	(g)	156
Electrical specifications		
Device power ratings		
DC voltage minimum (3)	(V)	12
DC voltage maximum (3)	(V)	24
Power consumption	(VV)	< 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
1 1 1 2024 06 22		



# CONNECTION



Device side - male pins

Front view Pinout reference

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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.

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

#### NOTES

- 1. Opto  ${\sf Engineering} @$  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  $\label{eq:constraint} \mbox{Opto Engineering} \ensuremath{\mathbb{R}} \ensuremath{ \mbox{technical support}}\xspace$ 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"

	Bi-telecentric lens for 2/3" detectors, magnification 2.000 ×, C-mount
TC23007	Bi-telecentric lens for 2/3" detectors, magnification 1.333 x, C-mount
TC23009	Bi-telecentric lens for 2/3" detectors, magnification 1.000 x, C-mount
TC23012	Bi-telecentric lens for 2/3" detectors, magnification 0.735 x, C-mount



TC1MHR-TC4MHR series

Telecentric lenses for sensors up to 4/3"

TC4M004-	Telecentric lens for 4/3" detectors, magnification 4.000 x, C-mount
ГС4М004-	Telecentric lens for 4/3" detectors, magnification 4.000 x, F-mount
TC4M007-	Telecentric lens for 4/3" detectors, magnification 2.667 x, C-mount
TC4M007-	Telecentric lens for 4/3" detectors, magnification 2.667 x, F-mount
FC4M009-	Telecentric lens for 4/3" detectors, magnification 2.000 x, C-mount
C4M009-	Telecentric lens for 4/3" detectors, magnification 2.000 x, F-mount
	Accessories
	Accessories and add-ons to make the most of Opto $Engineering^{\mathbb{P}}$ lenses.
ED1W-R	Replacement LED source, red
20	CMHO series
	Clamping mechanics for lenses
MHO023	Clamping mechanics for TCxx004, 007, 009, 012 and LTCLHP023-X
(Ce	LTSCHP series
High-perf	ormance replacement LED modules
TSCHP1W	-R Replacement LED module, red
in state	PS series
areas 	
	Power supplies
T-SDR-12	0-24 24VDC DIN rail power supply
T-SDR-12	0-24 24VDC DIN rail power supply
T-SDR-12	CB series
T-SDR-12	
	CB series Cables
CB244P15	CB series Cables D0 Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels
CB244P15	CB series Cables D0 Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels D0L Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels
CB244P15	CB series Cables D0 Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels D0L Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels LTIC series
CB244P15	CB series Cables D0 Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels D0L Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels
EB244P15 EB244P15	CB series Cables DO Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels DOL Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels LTIC series LED lighting controllers
CB244P15 CB244P15 CB244P15	CB series Cables Cables D0 Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels D0L Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels LTIC series LED lighting controllers 1-4 Analogue lighting controller unit, 4A, 24V
RT-SDR-12 CB244P15 CB244P15 CB244P15 CB244P15 LTIC1CH-A LTIC1CH-A LTIC1CH-D LTICOBUL	CB series Cables Cables Cables Cables Cables Cables Cables Cables Cables Cables Cables Cables Cables Coll Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels Coll Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels LTIC series LED lighting controllers Cables
CB244P15 CB244P15 CB244P15 CB244P15 LTIC1CH-A LTIC1CH-A LTIC1CH-C LTICOBUL	CB series Cables Cables Cables Cables Cables Cables Cables Power cable, side 1 M8 connector straight, side 2 cable end - 2 m - type 1 labels DOL Power cable, side 1 M8 connector angled, side 2 cable end - 2 m - type 1 labels LTIC series LED lighting controllers 1-4 Analogue lighting controller unit, 4A, 24V 1-4 Digital lighting controller unit, 4A, 24V 1-4 Digital lighting controller unit, 4A, 24V 1000CH1-24VUSTB 24VDC analog lighting controller 1 channel, UK power cord, Illumination cable, side A SM 3 way male connector, side B terminal blocks