

TCCR12096

Bi-telecentric CORE lens for 1/2" detectors, magnification 0.068 x, C-mount

SPECIFICATIONS

Magnification	(x)	0.068
Image circle Ø	(mm)	8.0
Object field of view (6)		
with 1/3" detector (4.8 x 3.6 mm)	(mm × mm)	70.6 x 52.9
with 1/2.5" detector (5.70 x 4.28 mm)	(mm × mm)	83.8 x 62.9
with 1/2" detector (6.4 x 4.8 mm)	(mm × mm)	94.1 x 70.6
with 1/1.8" detector (7.13 x 5.37 mm)	(mm × mm)	104.8 x 78.9
with 2/3" - 5 MP detector (8.45 x 7.07 mm)	(mm × mm)	Ø = 103.9
Optical specifications		
Working distance (1)	(mm)	278.6
wF/# (2)		8
Telecentricity typical (max) (3)	(deg)	< 0.06 (0.08)
Distortion typical (max) (4)	(%)	< 0.03 (0.08)
Field depth (5)	(mm)	145
CTF @ 70 lp/mm	(%)	> 45
Dimensions		
Mount		C
A	(mm)	139
B	(mm)	172
C	(mm)	183
Mass	(g)	4224



NOTES

1. Working distance: distance between the front end of the mechanics and the object. Set this distance within +/- 3% of the nominal value for maximum resolution and minimum distortion.
2. Working F-number (wF/#): the real F-number of a lens when used as a macro. Lenses with smaller apertures can be supplied on request.
3. Maximum slope of chief rays inside the lens: when converted to millirad, it gives the maximum measurement error for any millimeter of object displacement. Typical (average production) values and maximum (guaranteed) values are listed.
4. Percent deviation of the real image compared to an ideal, undistorted image: typical (average production) values and maximum (guaranteed) values are listed.
5. At the borders of the field depth the image can be still used for measurement but, to get a perfectly sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 5.5 µm.
6. For the fields with the indication "Ø =", the image of a circular object of such diameter is fully inscribed into the detector.

COMPATIBLE PRODUCTS



LTCLHP series
High-performance telecentric illuminators

LTCLHP096-G	Telecentric HP illuminator, beam diameter 120 mm, green
LTCLHP096-R	Telecentric HP illuminator, beam diameter 120 mm, red
LTCLHP096-B	Telecentric HP illuminator, beam diameter 120 mm, blue
LTCLHP096-W	Telecentric HP illuminator, beam diameter 120 mm, white



LTCLCR CORE series
Ultra compact telecentric illuminators

LTCLCR096-R	Telecentric CORE illuminator, beam diameter 120 mm, red
LTCLCR096-G	Telecentric CORE illuminator, beam diameter 120 mm, green

LTCLCR096-W Telecentric CORE illuminator, beam diameter 120 mm, white



CMHOCR series
Clamping mechanics CORE series

CMHOCR096 Clamping mechanics for CORE telecentric lenses and illuminators Ø 96mm



CMPTCR series
Mounting plates CORE series

CMPTCR096 Mechanical components designed for CORE telecentric lenses and illuminators Ø 96mm
