



TCCR23120

Bi-telecentric CORE lens for 2/3" detectors, magnification 0.072 x, C-mount

SPECIFICATIONS

Part number (8)		TCCR23120
Magnification	(x)	0.072
Image shape dimension (9)	(\emptyset , x mm)	$\emptyset=11.2$, x=9.3
Phase adjustment (7)		Yes

Object field of view (6)

with 1/3" detector (4.8 x 3.6 mm)	(mm x mm)	67.0 x 50.3
with 1/2.5" detector (5.70 x 4.28 mm)	(mm x mm)	79.6 x 59.7
with 1/2" detector (6.4 x 4.8 mm)	(mm x mm)	89.4 x 67.0
with 1/1.8" detector (7.13 x 5.37 mm)	(mm x mm)	99.5 x 75.0
with 2/3" - 5 MP detector (8.45 x 7.07 mm)	(mm x mm)	117.9 x 98.7

Optical specifications

Working distance (1)	(mm)	334.5
wF/# (2)		8
Telecentricity typical (max) (3)	(deg)	< 0.06 (0.08)
Distortion typical (max) (4)	(%)	< 0.08 (0.10)
Field depth (5)	(mm)	131
CTF @ 70 lp/mm	(%)	> 35

Dimensions

Mount		C
A	(mm)	182
B	(mm)	220
C	(mm)	231
Mass	(g)	9172

Compatibility

LTCLCR120-x, LTCLHP120-x

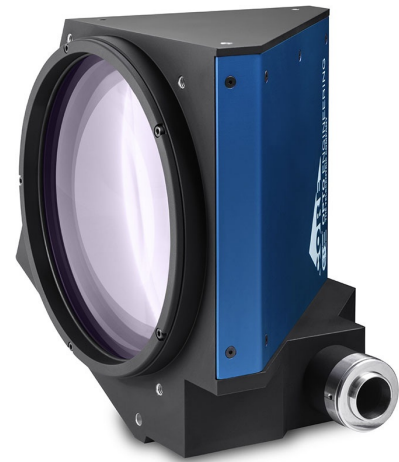
NOTES

- 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.
- 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.
- 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.
- Percent deviation of the real image compared to an ideal, undistorted image: typical (average production) values and maximum (guaranteed) values are listed.
- 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 .
- In case the of vignetting, FOV dimensions are indicated with " $\emptyset =$, x = ", where " $\emptyset =$ " stands for diameter and "x=" indicates the nominal FOV height and length (see [Tech Info](#) for related drawing).
- Indicates the availability of an integrated camera phase adjustment feature.
- Due to the special shape of TCCR120xx it might be necessary to check the mechanical compatibility with your camera.
- Indicates the dimensions and shape of image, where " $\emptyset =$ " stands for diameter and "x=" indicates the nominal image height and length ([Tech Info](#) for related drawing).

COMPATIBLE PRODUCTS



LTCLHP120-R	Telecentric HP illuminator, beam diameter 150 mm, red
LTCLHP120-G	Telecentric HP illuminator, beam diameter 150 mm, green



LTCLHP120-W Telecentric HP illuminator, beam diameter 150 mm, white



LTCLCR120-R Telecentric CORE illuminator, beam dimensions $\varnothing = 156$, $x = 130$, red, 630 nm

LTCLCR120-G Telecentric CORE illuminator, beam dimensions $\varnothing = 156$, $x = 130$, green, 520 nm

LTCLCR120-W Telecentric CORE illuminator, beam dimensions $\varnothing = 156$, $x = 130$, white
