



# TC4K060-F

Telecentric lens for 4k linescan cameras, magnification 0.478x, F-mount

## SPECIFICATIONS

Magnification	(x)	0.478
Image width	(mm)	28.7

### Object field of view

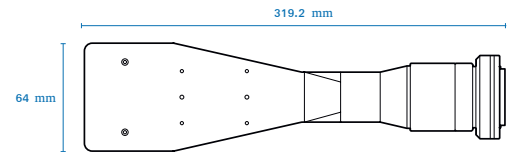
with 2k x 10 µm detector 20.48	(mm)	42.8
with 4k x 7 µm detector 28.67	(mm)	60.0

### Optical specifications

Working distance (1)	(mm)	174.0
wF/# (2)		16
Telecentricity typical (max) (3)	(deg)	0.06 (0.10)
Distortion typical (max) (4)	(%)	0.05 (0.08)
Field depth (5)	(mm)	7.3
CTF @ 50 lp/mm	(%)	>30

### Mechanical specifications

Mount		F
Flange distance		46.5
Length (6)	(mm)	319.2
Width	(mm)	83
Height	(mm)	64
Mass	(g)	1443



## 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 milliradians, 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 7 µm.
- Indicates the availability of an integrated camera phase adjustment feature.
- Measured from the front end of the mechanics to the camera flange.

## COMPATIBLE PRODUCTS



<b>LTCL4K060-G</b>	Telecentric illuminator for linescan cameras, line width 60 mm, green
<b>LTCL4K060-W</b>	Telecentric illuminator for linescan cameras, line width 60 mm, white



<b>LTZPFL080-00-6-W-24V</b>	LED bar light, 6 LED rows, 80X26.3 illumination area, white, 24V
<b>LTZPFL080-00-6-R-24V</b>	LED bar light, 6 LED rows, 80X26.3 illumination area, red, 24V
<b>LTZPFL080-00-6-G-24V</b>	LED bar light, 6 LED rows, 80X26.3 illumination area, green, 24V
<b>LTZPFL080-00-6-B-24V</b>	LED bar light, 6 LED rows, 80X26.3 illumination area, blue, 24V



<b>LTLNC100-W</b>	LED line light 100 mm, white
<b>LTLNC150-W</b>	LED line light 150 mm, white

<b>LTLNC200-W</b>	LED line light 200 mm, white
<b>LTLNC300-W</b>	LED line light 300 mm, white



<b>LT2QOG070-00-X-W-24V</b>	LED coaxial light, 70x70 mm light emitting area, white, 24V
<b>LT2QOG070-00-X-R-24V</b>	LED coaxial light, 70x70 mm light emitting area, red, 24V
<b>LT2QOG070-00-X-G-24V</b>	LED coaxial light, 70x70 mm light emitting area, green, 24V
<b>LT2QOG070-00-X-B-24V</b>	LED coaxial light, 70x70 mm light emitting area, blue, 24V



<b>CMMR4K060-V</b>	45° adjustable first surface mirror, clamping size 83x38.5 mm, right angle vertical bend
<b>CMMR4K060-L</b>	45° adjustable first surface mirror, clamping size 83x38.5mm, right angle lateral bend