



TCDP4X144

Double magnification bi-telecentric lens, for detectors up to 2/3"

SPECIFICATIONS

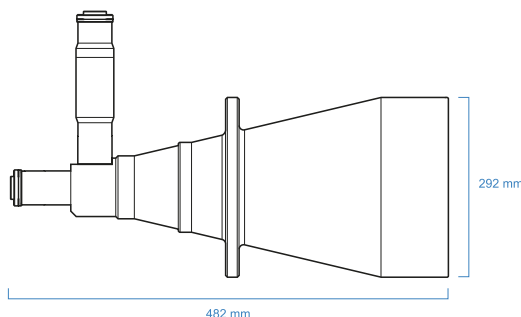
Magnification	(x)	0.061	0.244
Object field of view		(mm x mm)	
with 1/3" detector (4.8 x 3.6 mm)		78.6 x 58.9	19.6 x 14.7
with 1/2.5" detector (5.70 x 4.28 mm)		93.3 x 70.0	23.3 x 17.5
with 1/2" detector (6.4 x 4.8 mm)		104.8 x 78.6	26.2 x 19.6
with 1/1.8" detector (7.13 x 5.37 mm)		116.7 x 87.9	29.2 x 22.0
with 2/3" - 5 MP detector (8.45 x 7.07 mm)		138.3 x 115.7	34.6 x 28.9

Optical specifications

Working distance	(mm)	396.0	...
wF/# (1)		8	12
Telecentricity (2)	(deg)	< 0.05 (0.08)	< 0.08 (0.10)
Distortion , typical (max)	(%)	< 0.04 (0.08)	< 0.05 (0.08)
Field depth (3)	(mm)	180	17
CTF @ 70 lp/mm	(%)	> 30	> 35

Mechanical specifications

Length	(mm)	483.0	...
Diameter (Width)	(mm)	200	(292)
Mass	(g)	6661	...
Mount		C	...



NOTES

1. Working F-number (wF/#): the real F/# of a lens when used as a macro.
2. Maximum slope of principal rays inside the lens: when converted to milliradians, it gives the maximum measurement error for any millimeter of object displacement
3. At the borders of the field depth the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 5.5 µm.

COMPATIBLE PRODUCTS



LTCLHP144-R	Telecentric HP illuminator, beam diameter 180 mm, red
LTCLHP144-G	Telecentric HP illuminator, beam diameter 180 mm, green



LTRN144RD	Ring LED illuminator, inner diameter 200 mm, straight type, red 630 nm
LTRN144GR	Ring LED illuminator, inner diameter 200 mm, straight type, green 525 nm
LTRN144BL	Ring LED illuminator, inner diameter 200 mm, straight type, blue 470 nm
LTRN144NW	Ring LED illuminator, inner diameter 200 mm, straight type, white



LTBC234234-W	Continuous LED backlight, 234x234 illumination area, white
LTBC234234-G	Continuous LED backlight, 234x234 illumination area, green



LTZPFL200-00-6-W-24V	LED bar light, 6 LED rows, 200X26.3 illumination area, white, 24V
LTZPFL200-00-6-R-24V	LED bar light, 6 LED rows, 200X26.3 illumination area, red, 24V
LTZPFL200-00-6-G-24V	LED bar light, 6 LED rows, 200X26.3 illumination area, green, 24V
LTZPFL200-00-6-B-24V	LED bar light, 6 LED rows, 200X26.3 illumination area, blue, 24V



