



TCDP4X120

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

SPECIFICATIONS

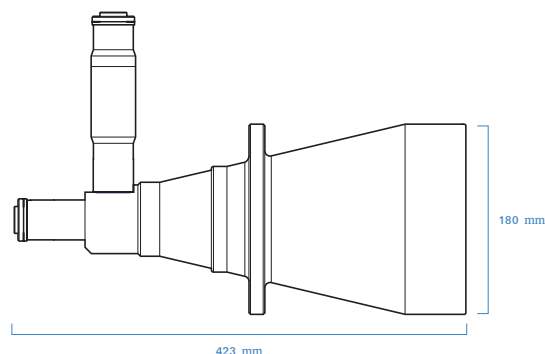
Magnification	(x)	0.072	0.286
Object field of view		(mm x mm)	
with 1/3" detector (4.8 x 3.6 mm)		67.0 x 50.3	16.8 x 12.6
with 1/2.5" detector (5.70 x 4.28 mm)		79.6 x 59.7	19.9 x 14.9
with 1/2" detector (6.4 x 4.8 mm)		89.4 x 67.0	22.3 x 16.8
with 1/1.8" detector (7.13 x 5.37 mm)		99.5 x 75.0	24.9 x 18.7
with 2/3" - 5 MP detector (8.45 x 7.07 mm)		117.9 x 98.7	29.5 x 24.7

Optical specifications

Working distance	(mm)	334.5	...
wF/# (1)		8	12
Telecentricity (2)	(deg)	< 0.07 (0.08)	< 0.08 (0.10)
Distortion , typical (max)	(%)	< 0.04 (0.10)	< 0.05 (0.08)
Field depth (3)	(mm)	131	12
CTF @ 70 lp/mm	(%)	> 30	> 35

Mechanical specifications

Length	(mm)	423.0	...
Diameter (Width)	(mm)	180	(282)
Mass	(g)	5526	...
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



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



LTRN120RD	Ring LED illuminator, inner diameter 180 mm, straight type, red 630 nm
LTRN120GR	Ring LED illuminator, inner diameter 180 mm, straight type, green 525 nm
LTRN120BL	Ring LED illuminator, inner diameter 180 mm, straight type, blue 470 nm
LTRN120NW	Ring LED illuminator, inner diameter 180 mm, straight type, white



LTZPFL160-00-6-W-24V	LED bar light, 6 LED rows, 160X26.3 illumination area, white, 24V
LTZPFL160-00-6-R-24V	LED bar light, 6 LED rows, 160X26.3 illumination area, red, 24V
LTZPFL160-00-6-G-24V	LED bar light, 6 LED rows, 160X26.3 illumination area, green, 24V
LTZPFL160-00-6-B-24V	LED bar light, 6 LED rows, 160X26.3 illumination area, blue, 24V



CMHO120	Clamping mechanics for TCxx110, TCxx120 lenses and LTCLHP120-X illuminators
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