



TCUV12048

UV telecentric lens

SPECIFICATIONS

Magnification	(x)	0.133
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Object field of view

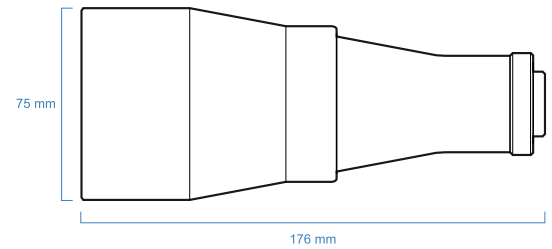
with 1/3" detector (4.8 x 3.6 mm)	(mm x mm)	36.0 x 27.0
with 1/2.5" detector (5.70 x 4.28 mm)	(mm x mm)	27.0 x 20.2
with 1/2" detector (6.4 x 4.8 mm)	(mm x mm)	47.9 x 36.0
with 1/1.8" detector (7.13 x 5.37 mm) (8)	(mm x mm)	53.6 x 40.1
with 2/3" detector (8.8 x 6.6 mm)	(mm x mm)	diam. = 49.4

Optical specifications

Working distance (1)	(mm)	130.7
wF/# (2)		8
Telecentricity (3)	(deg)	< 0.08
Distortion (4)	(%)	< 0.08
Field depth (5)	(mm)	37.3
CTF@ 70 lp/mm (6)	(%)	> 40

Mechanical specifications

Phase adjustment (10)		
Mount		C
Length (7)	(mm)	176.1
Diameter	(mm)	75.0
Mass	(g)	670



NOTES

- Working distance: distance between the front lens 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 (higher wF/#) 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 very sharp image, only half of the nominal field depth should be considered.
- Nominal value
- Measured from the front end of the mechanics to the camera flange.
- With 1/1.8" (8.9 mm diagonal) detectors, the FOV of TCUV 12 XX lenses may show some vignetting at the image corners, as these lenses are optimized for 1/2" detectors (8 mm diagonal).
- For the fields with the indication "Ø =", the image of a circular object of such diameter is fully inscribed into the detector.
- Indicates the availability of an integrated camera phase adjustment feature.