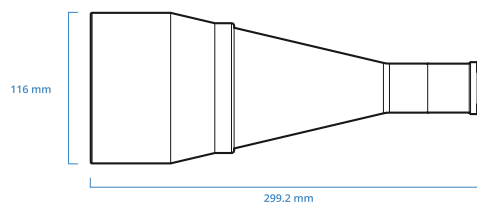


TC23072

Bi-telecentric lens for 2/3" detectors, magnification 0.122 x, C-mount

SPECIFICATIONS

| | | |
|--------------------------------------------|-----------|---------------|
| Magnification | (x) | 0.122 |
| Image circle Ø | (mm) | 11.0 |
| Object field of view (8) | | |
| with 1/3" detector (4.8 x 3.6 mm) | (mm x mm) | 39.2 x 29.4 |
| with 1/2.5" detector (5.70 x 4.28 mm) | (mm x mm) | 46.6 x 35.0 |
| with 1/2" detector (6.4 x 4.8 mm) | (mm x mm) | 52.3 x 39.2 |
| with 1/1.8" detector (7.13 x 5.37 mm) (7) | (mm x mm) | 58.3 x 43.9 |
| with 2/3" - 5 MP detector (8.45 x 7.07 mm) | (mm x mm) | 69.1 x 57.8 |
| Optical specifications | | |
| Working distance (1) | (mm) | 226.7 |
| wF/# (2) | | 8 |
| Telecentricity typical (max) (3) | (deg) | < 0.04 (0.08) |
| Distortion typical (max) (4) | (%) | < 0.03 (0.07) |
| Field depth (5) | (mm) | 45 |
| CTF @ 70 lp/mm | (%) | > 40 |
| Dimensions | | |
| Mount | | C |
| Length (6) | (mm) | 299.2 |
| Diameter | (mm) | 116 |
| Mass | (g) | 1600 |



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 very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 5.5 µm.
- Measured from the front end of the mechanics to the camera flange.
- With 1/1.8" (9 mm diagonal) detectors, the FOV of TC12yyy 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.

COMPATIBLE PRODUCTS

| | |
|-----------------|---------------------------------------------------------------------------------|
| LTCLHP080-G | Telecentric HP illuminator, beam diameter 100 mm, green |
| CMHO080 | Clamping mechanics for TCxx072, TCxx080, LTCLHP080-X illuminators and PCxx030XS |
| LTRN080NW | Ring LED illuminator, inner diameter 116 mm, straight type, white |
| Optical filters | Lens filters and mounting accessory |