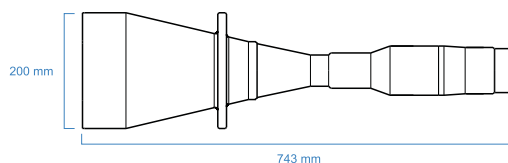


TC12K144

Telecentric lens for 12k and 16k linescan cameras, magnification 0.439 x, M72 x 0.75 mount

SPECIFICATIONS

| | | |
|---------------------------------------|-------|----------------------|
| Magnification | (x) | 0.439 |
| Image circle Ø | (mm) | 62.4 |
| Object field of view | | |
| with line - 12k detector 12k x 5.2 µm | (mm) | 142.2 |
| with line - 12k detector 12k x 5 µm | (mm) | 140.0 |
| with line - 16k detector 16k x 3.5 µm | (mm) | 130.6 |
| with line - 8k detector 8k x 7 µm | (mm) | 130.6 |
| Optical specifications | | |
| Working distance (1) | (mm) | 237.9 |
| wF/# (2) | | 16 |
| Telecentricity typical (max) (3) | (deg) | < 0.06 (0.08) |
| Distortion typical (max) (4) | (%) | < 0.07 (0.10) |
| Field depth (5) | (mm) | 5.5 |
| CTF@ 70 lp/mm | (%) | > 40 |
| Mechanical specifications | | |
| Length (6) | (mm) | 743.3 |
| Diameter | (mm) | 200 |
| Mass | (g) | 9000 |
| Mount (7) | | M72 x 0.75 - FD 6.56 |



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 can be supplied on request
- Maximum slope of principal rays inside the lens: when converted to milliradians, it gives the maximum measurement error for any millimeter of object displacement
- 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 4.35 µm.
- Measured from the front end of the mechanics to the camera flange.
- FD stands for Flange Distance (in mm), defined as the distance from the mounting flange (the "metal ring" in rear part of the lens) to the camera detector plane.

COMPATIBLE PRODUCTS

| | |
|-------------|---|
| LTCLHP144-G | Telecentric HP illuminator, beam diameter 180 mm, green |
| CMHO144 | Clamping mechanics for TCxx130, TCxx144 lenses and LTCLHP144-X illuminators |
| LTRN144NW | Ring LED illuminator, inner diameter 200 mm, straight type, white |