

# Magnifying telecentric lenses

vicotar®

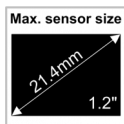
T45 series

## Product features

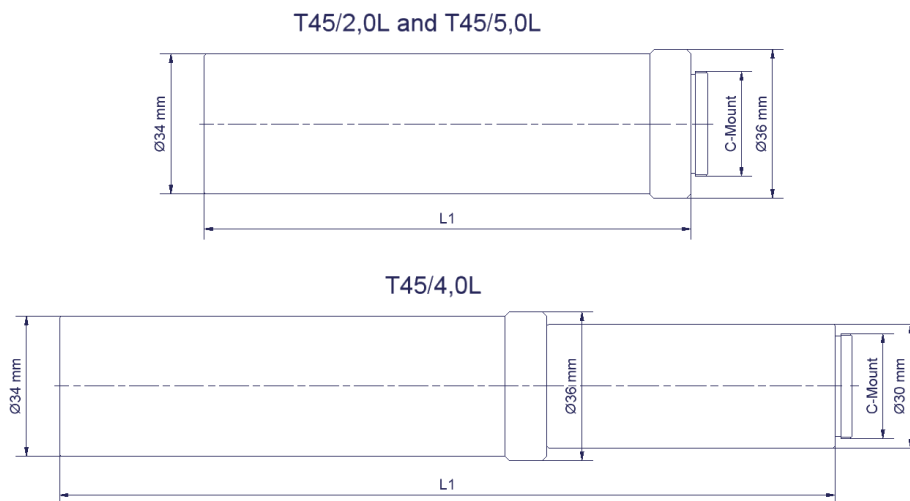
- Object side telecentric light path
- Application for matrix and line cameras up to sensor diagonal/length 21.4 mm
- Maximum object field diameter 10.7 mm
- Measuring lenses with long working distance
- High resolution
- Low distortion
- Fixed aperture
- Robust industrial design: dust-proof, shock-proof
- C-mount (thread connection)



## Options



## Engineering drawing



Download  
Manual  


Download  
CAD-File  
\*.stp  
\*.dwf

Up to  
1.2"  
imager

# Magnifying telecentric lenses

vicotar®

T45 series

## Properties

Optical properties

Spectral range 380...900nm / colour-corrected / fast lenses

Mechanical properties

Flange focal distance 17.53mm / max. diameter of lenses 36mm / environmental temperature -10°C ... 50°C

## Optical data

Name	Order no.	Lateral magnification	Object side depth of field (mm)*	Field of view for 1.2" sensor (mm²)	Field of view for 1." sensor (mm²)	Field of view for ¾" sensor (mm²)	Field of view for 1/1.8" sensor (mm²)	Field of view for ½" sensor (mm²)	Field of view for ¼" sensor (mm²)
T45/5.0L	2-05-251	-5 : 1	0.06 ( 0.015)	3.0 × 3.0	2.6 × 1.9	1.8 × 1.3	1.4 × 1.1	1.28 × 0.96	0.96 × 0.72
T45/4.0L	2-05-252	-4 : 1	0.08 (0.02)	3.8 × 3.8	3.2 × 2.4	2.2 × 1.7	1.8 × 1.4	1.6 × 1.2	1.2 × 0.9
T45/2.0L	2-05-250	-2 : 1	0.2 (0.05)	7.6 × 7.6	6.4 × 4.8	4.4 × 3.3	3.6 × 2.7	3.2 × 2.4	2.4 × 1.8

\*Object side depth of field at a circle of confusion 40 (10) µm.

We provide technical information to the distortion or the telecentric error of a certain lens by our technical support upon request.

Size of imaging device:

1.2" - 15.16 x 15.16 mm² | 1" - 12.8 x 9.6 mm² | ¾" - 8.8 x 6.6 mm² | 1/1.8(=5/9)" - 7.1 x 5.4 mm² | ½" - 6.4 x 4.8 mm² | ¼" - 4.8 x 3.6 mm²

## Mechanical data

Name	Order no.	Max. object field diagonal	Object side aperture (fixed)	Working distance	Total length	Max. diameter of lenses	Weight
T45/5.0L	2-05-251	4.3 mm	0.13	64 ± 1 mm	236 mm	36 mm	440 g
T45/4.0L	2-05-252	5.4 mm	0.12	67 ± 1 mm	188 mm	36 mm	330 g
T45/2.0L	2-05-250	10.7 mm	0.1	77 ± 1 mm	118 mm	36 mm	240 g

## Important advice

### Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of UV-filter with socket joint. The filter be attached from the front (object side) to the lens.

### Care instruction

Clean easily dirty lens with an optics brush or cleaned air. Adherent contamination can be removed by using an optical cleaning tissue. Please use only alcohol as a solvent, do not use acetone or other chemicals.

## Product features

Order no.	Name	Description
2-25-110	PSO 90-45	beam-deflection unit (90°) for lens-systems with diameter d = 34 mm
2-90-123	OH 34	lens holder, d = 34 mm
2-91-128	UV-filter with socket joint	d=34 for telecentric lens-systems
2-91-138	IR-cutting-filter with socket	joint d = 34 mm for telecentric lens-systems

You can find a multiplicity of filters in the chapter accessories. Please order the filters separately.