

Telecentric measurement lenses with adjustable aperture

vicotar®

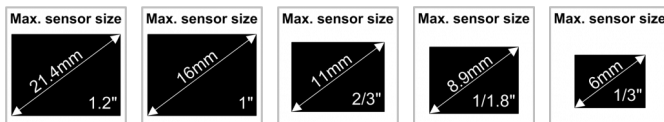
T201 series

Product features

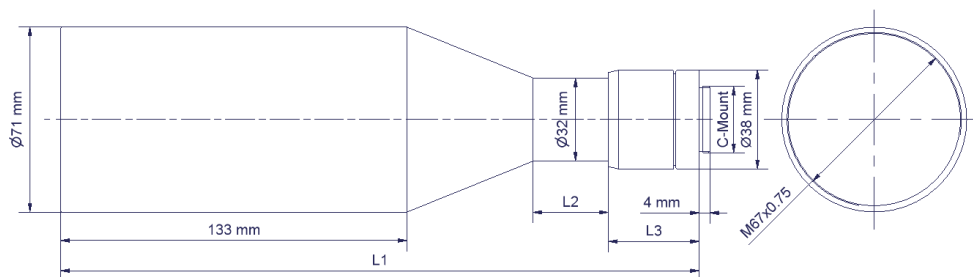
- Object side telecentric light path
- Application for matrix and line cameras up to sensor diagonal/length 16 mm
- Maximum object field diameter 57 mm
- Lenses with short and long working distance
- Low distortion
- Extremely low telecentric error
- Manual operated iris aperture with fixing
- Robust industrial design: dust-proof, shock-proof
- C-mount (thread connection)



Options



Engineering drawing



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Manual


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Up to
1.2"
imager

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Properties

Optical properties

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

Mechanical properties

Flange focal distance 17.53mm / max. diameter of lenses 71mm / focal filter thread M67 x 0.75 / 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 ½" sensor (mm²)	Field of view for 1/1.8" sensor (mm²)	Field of view for ½" sensor (mm²)	Field of view for ⅓" sensor (mm²)
T201/0.42	2-05-345	-1 : 2.39	5.3 (1.3)	36.3 × 36.3	30.6 × 23.0	21.0 × 15.8	17.0 × 12.9	15.3 × 11.5	11.5 × 8.6
T201/0.30	2-05-336	-1 : 3.25	9.4 (2.3)	--	42.0 × 31.5	28.9 × 21.7	23.1 × 17.6	21.0 × 15.8	15.8 × 11.8
T201/0.28L	2-05-335	-1 : 3.50	12.3 (3.1)	--	--	31.1 × 23.4	24.9 × 18.9	22.7 × 17.0	17.0 × 12.7
T201/0.26	2-05-337	-1 : 3.81	12.9 (3.2)	--	--	33.9 × 25.4	27.1 × 20.6	24.6 × 18.5	18.5 × 13.8
T201/0.19	2-05-334	-1 : 5.13	9.7 (2.4)	--	--	45.6 × 34.2	36.4 × 27.7	33.2 × 24.9	24.9 × 18.6
T201/0.19L	2-05-333	-1 : 5.19	21.5 (5.4)	--	--	--	36.9 × 28.0	33.6 × 25.2	25.2 × 18.9
T201/0.15	2-05-338	-1 : 6.71	30.0 (7.5)	--	--	--	47.6 × 36.2	43.5 × 32.7	32.6 × 24.5
T201/0.13L	2-05-332	-1 : 7.43	36.8 (9.2)	--	--	--	--	--	36.1 × 27.1
T201/0.12	2-05-339	-1 : 8.47	41.0 (10.2)	--	--	--	--	--	41.4 × 31.0

*Object side depth of field at a circle of confusion 40 (10) µm and a middle aperture setting.

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 | ½" - 8.8 x 6.6 mm² | 1/1.8(=5/9)" - 7.1 x 5.4 mm² | ⅓" - 6.4 x 4.8 mm² | ⅓" - 4.8 x 3.6 mm²

Mechanical data

Name	Order no.	Max. object field diagonal	Image side aperture (adjustable)	Working distance	Working distance with IR-filter*	Total length L1	Length L2	Length L3	Weight
T201/0.42	2-05-345	51.3 mm	0.06 ... 0.02	210 ± 1 mm	--	292 mm	32 mm	82 mm	1150 g
T201/0.30	2-05-336	52 mm	0.08 ... 0.01	157 ± 4 mm	--	274 mm	32 mm	64 mm	1110 g
T201/0.28L	2-05-335	39 mm	0.07 ... 0.01	278 ± 5 mm	282 ± 5 mm	269 mm	32 mm	60 mm	1110 g
T201/0.26	2-05-337	42 mm	0.08 ... 0.01	130 ± 4 mm	135 ± 4 mm	269 mm	31 mm	60 mm	1090 g
T201/0.19	2-05-334	57 mm	0.09 ... 0.03	143 ± 4 mm	152 ± 4 mm	252 mm	29 mm	45 mm	1047 g
T201/0.19L	2-05-333	42 mm	0.07 ... 0.03	284 ± 5 mm	--	248 mm	29 mm	41 mm	1040 g
T201/0.15	2-05-338	54 mm	0.09 ... 0.03	136 ± 4 mm	151 ± 4 mm	242 mm	29 mm	35 mm	1040 g
T201/0.13L	2-05-332	45 mm	0.09 ... 0.03	273 ± 5 mm	292 ± 5 mm	239 mm	29 mm	32 mm	1040 g
T201/0.12	2-05-339	52 mm	0.11 ... 0.03	135 ± 4 mm	--	239 mm	29 mm	32 mm	1040 g

* A daylight suppression filter IR M20.5 x 0.5 can be screwed-on to the telecentric vicotar® objectives from camera side. Removing the IR suppression filter from camera effects alteration of working distance.

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Important advice

Anxiliary adjusting device

The optical axis must be aligned perpendicularly to object level / plane of measurement to realize exact measurement. This anxiliary adjusting device lower time and effort for setup. Please find further information in the corresponding data sheet.

Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of protection glass UV M67 x 0.75. You shall be screw-on first 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.

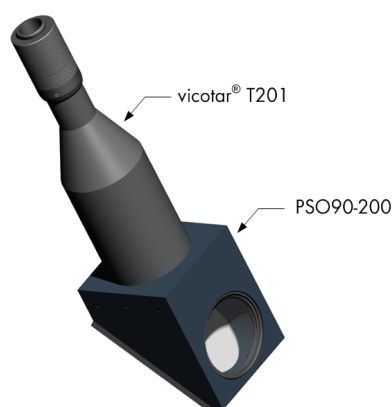
Accessories

Order no.	Name	Description
2-25-124	PSO 90-200	90°-reflexion for telecentric lenses and illumination T200, T201, TZB 60, serie
2-90-125	OH 150/200	lens holder for T150 / T151 T201 series, d = 32 mm
2-91-131	IR M20.5 x 0.5	daylight suppression filter for telecentric lens-systems
2-91-135	IR M67 x 0,75	daylight cutting-filter for telecentric lens-systems
2-91-125	UV M67 x 0,75	protection glass for telec. lens/lighting systems
5-10-114	JH 20	adjustment-help for 20mm depth of focus

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

Intended use for accessories

T201 with 90° beam-deflection

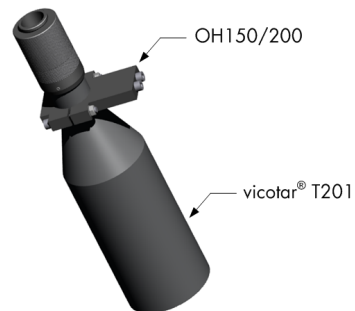


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T201 with lens holder OH150/200



T201 with filter

