TELECENTRIC LENSES

HIGH RESOLUTION TELECENTRIC LENSES FOR 1.1" SENSOR
DIFFRACTION LIMITED FROM CENTER TO THE EDGE OF THE SENSOR

KEY FACTS

- Diffraction limited resolution across the whole sensor
- Spatial resolution up to 1.5 µm
- Integrated top-light illumination
- Broad spectral range for RGB applications

CHALLENGE MET

It is outstanding expert knowledge that makes telecentric lenses possible. Regardless of whether you are close to an object or further away, telecentric lenses will always depict it in the same size and without any distortion.

Telecentric lenses are perfect for all your demands in measuring, testing and production technology. To develop such supreme performances, we dived into new spheres in terms of tolerances and accuracy. For the first time ever, our experts made it possible to depict resolutions in the 1 to 1,5 µm range. This enormous challenge could only be met by our excellent SWAROTEC team of quality and metrology specialists.

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TECHNICAL DATA

	TL 10-200	TL 28-145	TL 55-090
Magnification	1.0x	2.8x	5.5x
Working distance (mm)	90	90	90
Object resolution (µm)	5.4	2.8	1.5
Numerical aperture	0.06	0.11	0.22
Telecentricity (°)	< 0.4	< 0.06	< 0.01
Distortion (%)	+ 0.04	+ 0.1	- 0.05
Camera mount	c-mount	c-mount	c-mount
Wavelengths (mm)	VIS	VIS	VIS
Field of view, height x width (1.1" sensor) (mm)	10.1 x 13.8	3.8 x 5.2	1.9 x 2.6
Max. sensor diagonale (mm)	17.6	17.6	17.6
Approx. length (mm)	550	550	550
Approx. width (mm)	70	70	70
Approx. height (mm)	120	120	120
Approx. weight (kg)	2.9	3.2	3.2
Coaxial illumination	RGBW	RGBW	RGBW
Compliances	RoHS, REACH	RoHS, REACH	RoHS, REACH

Functional temperature: +20°C/+40°C · Storage temperature: -20°C/+55°C

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