
vicotar[®] Telecentric Lens - TOM21.6/21.6-70-F16-WN

Short description:	Telecentric microscope lens 1x C-Mount, Sensor max. Ø21.6 mm, fixed aperture, W/NIR
Order number:	2-06-001
Replaces:	Tube MK190 (2-05-120) + microscope lens 1x (2-05-113)



Characteristics

- telecentric microscope lens with object-sided telecentric beam path
 - for precise measurement of small objects
 - high resolution, low-distortion, low telecentric error
 - color corrected for the visible spectral range and near infrared
 - robust industrial design
 - fixed aperture
 - C-mount threaded connection
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Technical data

Image scale	1
Spectral range	450 nm - 900 nm
Working distance	70 mm
Camera distance (object-camera flange)	311.5 mm
Object field diagonal (max)	21.6 mm
Sensor format (max)	Type 4/3
Image field diagonal (max)	21.6 mm
Suitable for camera resolution	18.9 MPixel
Recommended pixel size	3.45 µm
Aperture	fixed (F16)
Depth of focus	670 µm
Lens mount	C-Mount
Filter thread, object-side	M30.5x0.5 (filter adapter)
Weight	440 g
Usable object field with:	
• Sensor type 4/3 (17.3 x 13.0 mm ²)	17.3 mm x 13 mm
• 1" sensor (12.8 x 9.6 mm ²)	12.8 mm x 9.6 mm
• 2/3" sensor (8.8 x 6.6 mm ²)	8.8 mm x 6.6 mm

Can be combined with

Order number	Title	Description
<i>TZB28-P-SL series</i>		
1-33-230	TZB28-B450-P-SL	telecentric light, blue, If diameter: 28 mm, smart light
1-33-231	TZB28-IR850-P-SL	telecentric light, IR850, If diameter: 28 mm, smart light
<i>TZB28-P-24V series</i>		
1-33-240	TZB28-B450-P-24V	telecentric light, blue, If diameter: 28 mm, 24V, switchable
1-33-284	TZB28-B450-HP-24V	telecentric light, blue, If diameter: 28 mm, 24V, switchable, high power
1-33-241	TZB28-IR850-P-24V	telecentric light, IR850, If diameter: 28 mm, 24V, switchable
1-33-285	TZB28-IR850-HP-24V	telecentric light, IR850, If diameter: 28 mm, 24V, switchable, high power
<i>R-CLR-69-SL series</i>		
1-33-007	R-CLR-69x41-B470-SL	ring light, blue, coaxial, If diameter: 41/69 mm, smart light technology
<i>RK2036-24V series</i>		
1-29-602	RK2036-B470-24V/C	ring light, blue, coaxial, If diameter: 41/69 mm, controlled, pot.: 0-10V,

Accessories for Telecentric Lenses - TOM21.6/21.6-70-F16-WN

Order number	Title	Description
<i>Adjustment Aids</i>		
5-10-110	Adjustment aid 2.7	for easy adjustment to 2.7 mm depth of field, for image scale 1.2 - 0.7
<i>Lens mount</i>		
2-90-123	Lens Holder d34	Holder for telecentric lenses and lightings with d = 34 mm
<i>Lens adapter c-mount</i>		

Order number	Title	Description
2-90-414	CS to C-mount adapter 5.0 mm	for connecting C-mount lenses with CS-mount cameras, length: 5 mm
Neutral density filter		
2-91-257	ND filter 3.0 M30.5x0.5	optical density 3.0 - 0.1% transmission, f-stop reduction 10, filter thread M30.5x0.5
2-91-247	ND filter 1.2 M30.5x0.5	optical density 1.2 - 6.3% transmission, f-stop reduction 4, filter thread M30.5x0.5
2-91-237	ND filter 0.6 M30.5x0.5	optical density 0.6 - 25% transmission, f-stop reduction 2, filter thread M30.5x0.5
Daylight blocking filter		
2-91-217	IR filter M30.5x0.5	long-pass filter from 830 nm, daylight absorbing filter, filter thread M30.5x0.5
Polarising filters		
2-91-227	Pole filter M30.5x0.5	linear polarizing filter, range 420 nm - 780 nm, filter thread M30.5x0.5
Colour filter blue		
2-91-284	Colour filter blue M30.5x0.5	band-pass filter, range 350 nm - 600 nm, filter thread M30.5x0.5
UV Cut-Off Filter		
2-91-207	UV blocking filter M30.5x0.5	long-pass filter from 350 nm, usable as protective glass, filter thread M30.5x0.5
Colour filter red		
2-91-267	Colour filter red M30.5x0.5	long-pass filter from 630 nm, red, filter thread M30.5x0.5
Colour filter green		
2-91-297	Colour filter green M30.5x0.5	band-pass filter, range 430 nm - 620 nm, filter thread M30.5x0.5
Colour filter yellow		
2-91-271	Colour filter yellow M30.5x0.5	long-pass filter from 530 nm, yellow, filter thread M30.5x0.5
Filter adapter		

Order number	Title	Description
2-91-187	Filter adapter d34-M30.5	slip-on adapter for use of a M30.5x0.5 filter on lenses with 34 mm clamping diameter
<i>Deflection mirror 90° series</i>		
2-25-110	Deflection mirror 90-34	90° deflection, attachment for telecentric lenses and lightings with d = 34 mm
<i>Adapters for attaching lights to lenses</i>		
1-29-671	Adapter ring d41 - M30.5x0.5	for R-CLR-69x41 and RK2036, for attachment to lenses with filter thread M30.5x0.5
<i>Beam splitter STE30x30</i>		
1-18-050	STE30x30-VIS	Beam splitter unit for coaxial light system, optimized for 450-700 nm
1-18-023	Adapter STE30x30 - TZ034	Attachment of the STE30x30 to telecentric lenses and lightings with d = 34 mm

Drawings



Dimensional drawing in mm