Vision & Control GmbH
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vicotar® Telecentric Lens - TOM4.3/21.6-64-F19-X-N-24V

Short description: Telecentric microscope lens 5x C-Mount, Sensor max. Ø21.6 mm, coax. NIR illumination, 24V

Order number: 2-06-031

Replaces: MK190-EBL-IR (2-05-133) + microscope lens 5x (2-05-111)

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	5
Spectral range	450 nm - 900 nm
Working distance	63.5 mm
Camera distance (object-camera flange)	313 mm
Object field diagonal (max)	4.3 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 (F19)
Depth of focus	18 µm
Lens mount	C-Mount
Filter thread, object-side	M30.5x0.5 (filter adapter)
Weight	1087 g
Usable object field with:	
• Sensor type 4/3 (17.3 x 13.0 mm²)	3.5 mm x 2.6 mm
• 1" sensor (12.8 x 9.6 mm²)	2.6 mm x 1.9 mm
• 2/3" sensor (8.8 x 6.6 mm²)	1.8 mm x 1.3 mm

Can be combined with

Order number	Title	Description
TZB10-P-SL series		
1-33-238	TZB10-B450-P-SL	telecentric light, blue, lf diameter: 10 mm, smart light
1-33-239	TZB10-IR850-P-SL	telecentric light, IR850, lf diameter: 10 mm, smart light
TZB10-P-24V series		
1-33-248	TZB10-B450-P-24V	telecentric light, blue, lf diameter: 10 mm, 24V, switchable
1-33-282	TZB10-B450-HP-24V	telecentric light, blue, lf diameter: 10 mm, 24V, switchable, high power
1-33-249	TZB10-IR850-P-24V	telecentric light, IR850, lf diameter: 10 mm, 24V, switchable
1-33-283	TZB10-IR850-HP-24V	telecentric light, IR850, lf diameter: 10 mm, 24V, switchable, high power
R-CLR-69-SL series		
1-33-007	R-CLR-69x41-B470-SL	ring light, blue, coaxial, lf diameter: 41/69 mm, smart light technology
RK2036-24V series		
1-29-602	RK2036-B470-24V/C	ring light, blue, coaxial, lf diameter: 41/69 mm, controlled, pot.: 0-10V,

Accessories for Telecentric Lenses - TOM4.3/21.6-64-F19-X-N-24V

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

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
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
Filter adapter		
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
Deflection mirrow 90° series		
2-25-110	Deflection mirror 90-34	90° deflection, attachment for telecentric lenses and lightings with d = 34 mm
Adapters for attaching lights to lenses		
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
Beam splitter STE30x30		
1-18-050	STE30x30-VIS	Beam splitter unit for coaxial light system, optimized for 450-700 nm
1-18-023	Adapter STE30x30 - TZO34	Attachment of the STE30x30 to telecentric lenses and lightings with d = 34 mm

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Drawings

Dimensional drawing in mm