Vision & Control GmbH
Phone: +49 36 81 / 79 74 11
www.vision-control.com

vicotar® Telecentric Lens - TO18/11.0-80-V-BW

Short description: Telecentric Lens, C-mount, sensor max. 2/3", aperture F10 - F22, blue

Order number: 2-05-538

EAN: 4251692620892

Characteristics

- telecentric measurement objective with object-sided telecentric beam path
- color corrected for the visible spectral range and near infrared
- color correction extended deep into the blue spectral range
- very well suited for blue LEDs including "Deep Blue" LEDs
- thus especially suitable for white LEDs, as these have a strong blue light component
- high resolution, low lateral chromatic aberration, low distortion, low telecentric error
- adjustable aperture with identification of the aperture numbers, arrestable
- robust industrial design

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Technical data

Image scale	0.616
Spectral range	450 nm - 950 nm
Working distance	80.0 mm
Camera distance (object-camera flange)	162.5 mm
Object field diagonal (max)	18 mm
Sensor format (max)	2/3"
Image field diagonal (max)	11 mm
Suitable for camera resolution	14.5 MPixel
Recommended pixel size	2 µm
Aperture	variable (F10 - F22)
Lens length	82.5 mm
Lens diameter (max)	30.5 mm
Lens mount	C-Mount
Filter thread, object-side	M27x0.5 (filter adapter)
Weight	95 g
Usable object field with:	
• 2/3" sensor	14.3 mm x 10.7 mm
• 1/1.8" sensor	11.5 mm x 8.8 mm
• 1/2" sensor	10.4 mm x 7.8 mm
• 1/3" sensor	7.8 mm x 5.8 mm

Notices

Die dargestellten Beleuchtungskombinationen stellen eine Auswahl dar. Je nach Anwendung sind auch andere Farben und Lichtquellentypen verwendbar.

Can be combined with

Order number	Title	Description
TZB28-P-SL series		
1-33-230	TZB28-B450-P-SL	telecentric light, blue, lf diameter: 28 mm, smart light
1-33-231	TZB28-IR850-P-SL	telecentric light, IR850, lf diameter: 28 mm, smart light
TZB28-P-24V series		
1-33-240	TZB28-B450-P-24V	telecentric light, blue, lf diameter: 28 mm, 24V, switchable
1-33-284	TZB28-B450-HP-24V	telecentric light, blue, lf diameter: 28 mm, 24V, switchable, high power
1-33-241	TZB28-IR850-P-24V	telecentric light, IR850, lf diameter: 28 mm, 24V, switchable
1-33-285	TZB28-IR850-HP-24V	telecentric light, IR850, lf diameter: 28 mm, 24V, switchable, high power
R-CLR-38-SL series		
1-33-022	R-CLR-38x20-B470-SL	ring light, blue, coaxial, lf diameter: 20/38 mm, smart light technology
RK1220-24V-BA series		
1-10-243	RK1220-B470-24V/BA	ring light, blue, coaxial, lf diameter: 24/40 mm, static/switchable
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 - TO18/11.0-80-V-BW

Order number	Title	Description
Adjustment Aids		

Order number	Title	Description
5-10-110	Adjustment aid 2.7	for easy adjustment to 2.7 mm depth of field, for image scale 1.2 - 0.7
5-10-111	Adjustment aid 5	for easy adjustment to 5 mm depth of field, for image scale 0.7 - 0.5
5-10-112	Adjustment aid 10	for easy adjustment to 10 mm depth of field, for image scale 0.5 - 0.2
5-10-114	Adjustment aid 20	for easy adjustment to 20 mm depth of field, for image scale 0.2 - 0.1
Lens mount		
2-90-138	Lens Holder d28	Holder for telecentric lenses and lightings with d = 28 mm
Extension tubes		
2-90-415	Extension ring 0.5 mm	26 x 31 x 0.5 reduces the minimum object distance (MOD)
2-90-416	Extension ring 1.0 mm	26 x 31 x 1.0 reduces the minimum object distance (MOD)
2-90-419	Extension ring 0.1 mm	25.5 x 29 x 0.1 reduces the minimum object distance (MOD)
2-90-420	Extension ring 0.2 mm	25.5 x 29 x 0.2 reduces the minimum object distance (MOD)
Lens adapter c-mount		
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		
2-91-256	ND filter 3.0 M27x0.5	optical density 3.0 - 0.1% transmission, f-stop reduction 10, filter thread M27x0.5
2-91-246	ND filter 1.2 M27x0.5	optical density 1.2 - 6.3% transmission, f-stop reduction 4, filter thread M27x0.5
2-91-236	ND filter 0.6 M27x0.5	optical density 0.6 - 25% transmission, f-stop reduction 2, filter thread M27x0.5
Daylight blocking filter		
2-91-133	IR filter M26x0.5	long-pass filter from 830 nm, daylight absorbing filter, filter thread M26x0.5
Polarising filters		

Order number	Title	Description
2-91-226	Pole filter M27x0.5	linear polarizing filter, range 420 nm - 780 nm, filter thread M27x0.5
Colour filter blue		
2-91-283	Colour filter blue M27x0.5	band-pass filter, range 350 nm - 600 nm, filter thread M27x0.5
UV Cut-Off Filter		
2-91-123	UV blocking filter M26x0.5	long-pass filter from 350 nm, usable as protective glass, filter thread M26x0.5
Colour filter red		
2-91-265	Colour filter red M27x0.5	long-pass filter from 630 nm, red, filter thread M27x0.5
Colour filter green		
2-91-296	Colour filter green M27x0.5	band-pass filter, range 430 nm - 620 nm, filter thread M27x0.5
Colour filter yellow		
2-91-270	Colour filter yellow M27x0.5	long-pass filter from 530 nm, yellow, filter thread M27x0.5
Filter adapter		
2-91-112	Filter adapter M26-M27	step-up ring for use of a M27x0.5 filter on a M26x0.5 filter thread
Deflection mirrow 90° series		
2-25-126	Deflection mirror 90-28	90° deflection, attachment for telecentric lenses and lightings with d = 28 mm
Adapters for attaching lights to lenses		
1-33-026	Adapter ring d20.4 - M26x0.5	for R-CLR-38x20, for attachment to lenses with filter thread M26x0.5
1-10-007	Adapter ring d27 - M26x0.5	for RK1220, for attachment to lenses with filter thread M26x0.5
1-29-673	Adapter ring d41 - M26x0.5	for R-CLR-69x41 and RK2036, for attachment to lenses with filter thread M26x0.5
Beam splitter STE30x30		

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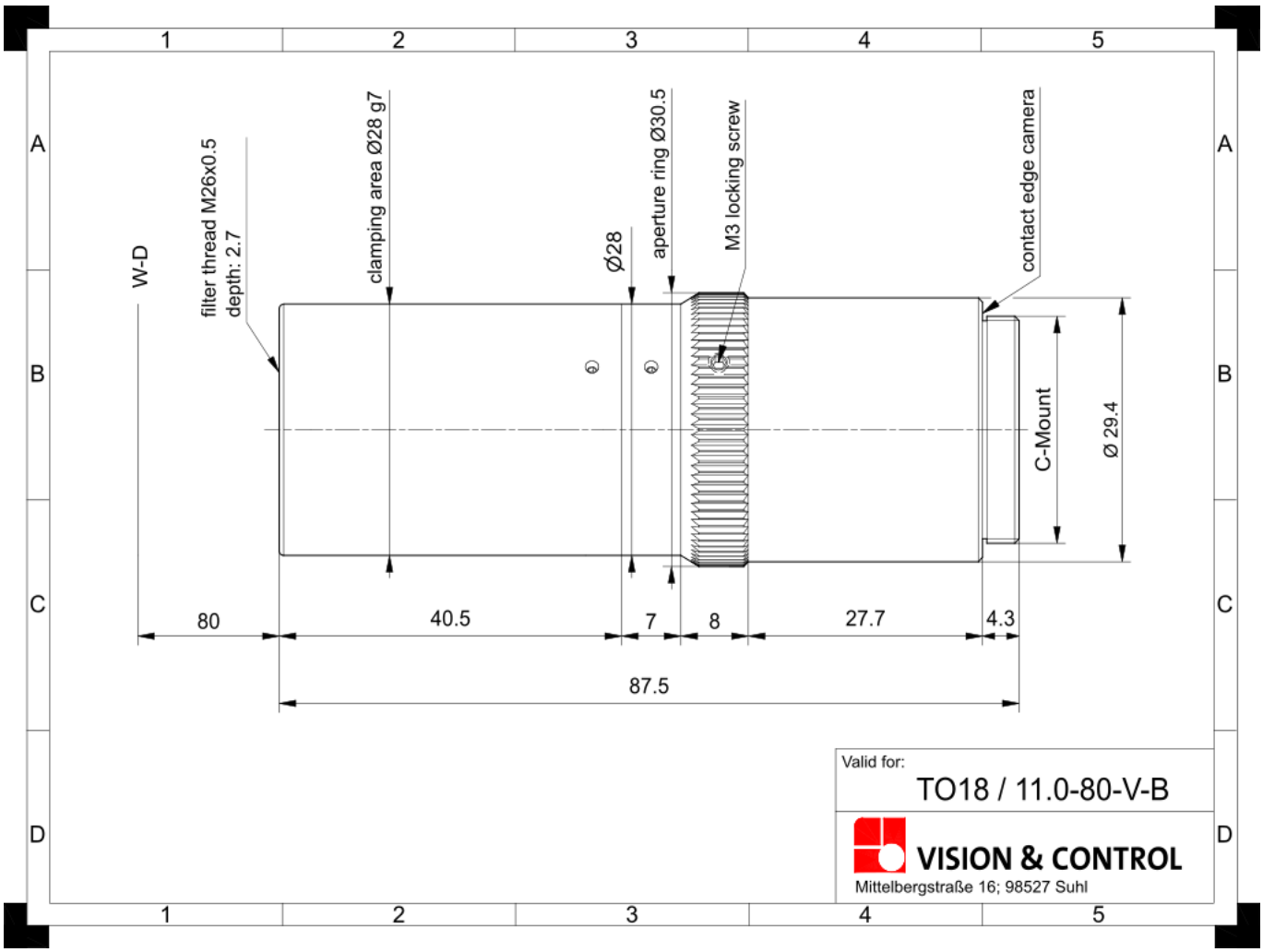
Order number	Title	Description
1-18-050	STE30x30-VIS	Beam splitter unit for coaxial light system, optimized for 450-700 nm
1-18-026	Adapter STE30x30 - TZO28	Attachment of the STE30x30 to telecentric lenses and lightings with d = 28 mm

Drawings



Dimensional drawing in mm