

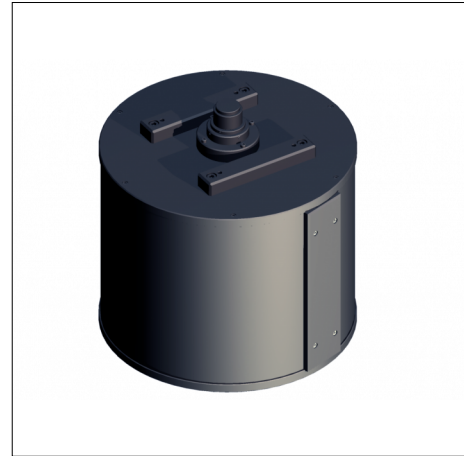
Telecentric widefield lenses with adjustable aperture

vicotar®

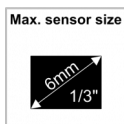
TL250 series

Product features

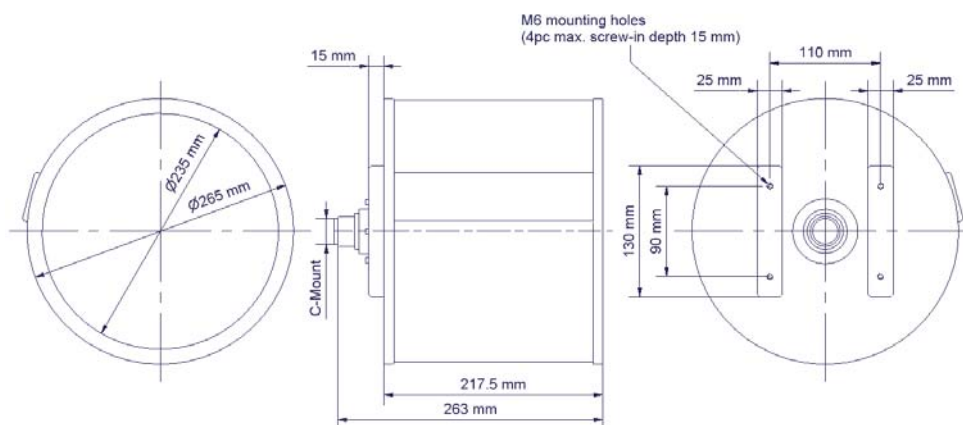
- Object side telecentric light path
- Application for matrix cameras up to sensor diagonal 6 mm
- Maximum object field diameter 228 mm
- Suitable for checking for the presence, special properties and nondimensional attributes of large objects
- Manual operated iris aperture with fixing
- Robust industrial design: dust-proof, shock-proof, use of plastic lenses
- C-mount (thread connection)
- Telecentric widefield lenses provide the best imaging results in conjunction with monochrome, diffuse vicolux®lighting units



Variants



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Telecentric widefield lenses with adjustable aperture

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TL250 series

Properties

Optical properties

Spectral range 380...900nm / fast lenses

Mechanical properties

Flange focal distance 17.53mm / max. diameter of lenses 265mm / environmental temperature -10°C ... 50°C

Optical data

Name	Order no.	Lateral magnification	Image side aperture (adjustable)	Object side depth of field (mm)*	Field of view for 1" sensor (mm²)	Field of view for ½" sensor (mm²)	Field of view for ⅓" sensor (mm²)	Field of view for ¼" sensor (mm²)
TL250/0,03	2-05-360	-1 : 38	0,3 ... 0	192 (48)	--	--	--	182 × 137

*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.

1" - 12,8 x 9,6 mm² | ½" - 8,8 x 6,6 mm² | ⅓" - 6,4 x 4,8 mm² | ¼" - 4,8 x 3,6 mm²

Name	Order no.	Max. object field diameter	Working distance	Total length L	Mounting points	Weight
TL250/0,03	2-05-360	228 mm	220 mm	265 mm	4 × M6	3,8 kg

Important advice

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
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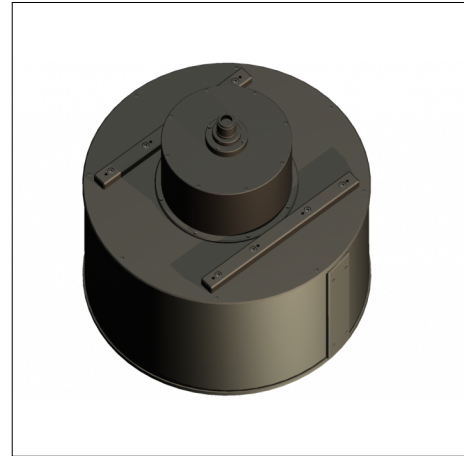
Telecentric widefield lenses

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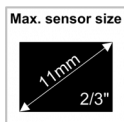
TL371 series

Product features

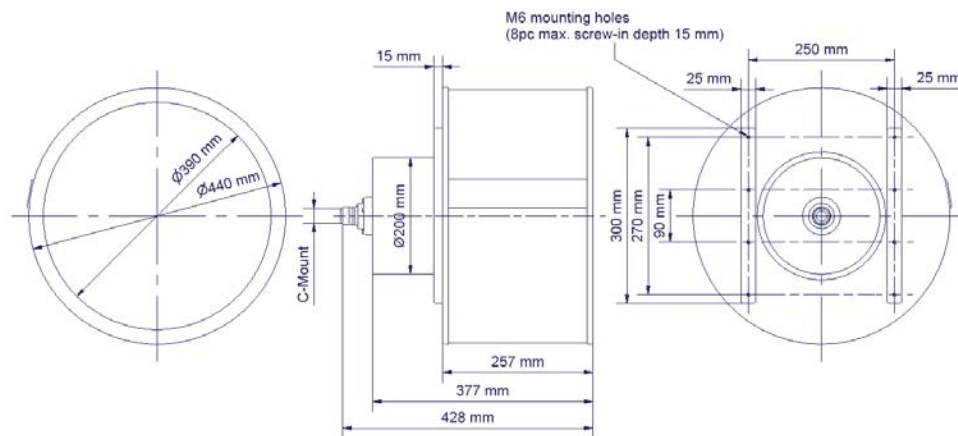
- Object side telecentric light path
- Application for matrix and line cameras up to sensor diagonal/length 11 mm
- Maximum object field diameter 374 mm
- Suitable for checking for the presence, special properties and nondimensional attributes of large objects
- Manual operated iris aperture with fixing
- Robust industrial design: dust-proof, shock-proof, us of plastic lenses
- C-mount (thread connection)
- Telecentric widefield lenses provide the best imaging results in conjunction with monochrome, diffuse vicolux®lighting units



Options



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Telecentric widefield lenses

vicotar®

TL371 series

Properties

Optical properties

Maximum distortion 3% / fast lenses

Mechanical properties

Flange focal distance 17.53mm / max. diameter of lenses 445mm / environmental temperature -10°C ... 50°C

Optical data

Name	Order no.	Lateral magnification	Image side aperture (adjustable)	Suppressed wavelength* (nm)	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)
TL371/0.03-B	2-05-366	-1 : 31 ... -1 : 34	0.33 ... 0	480 ... 670	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163
TL371/0.03-R	2-05-364	-1 : 3 ... -1 : 34	0.33 ... 0	< 630	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163
TL371/0.03-IR	2-05-365	-1 : 31 ... -1 : 34	0.33 ... 0	< 830	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163
TL371/0.03-SG390	2-05-369	-1 : 31 ... -1 : 34	0.33 ... 0	--	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163
TL371/0.03-B-SG390	2-05-372	-1 : 31 ... -1 : 34	0.33 ... 0	480 ... 670	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163
TL371/0.03-R-SG390	2-05-370	-1 : 31 ... -1 : 34	0.33 ... 0	< 630	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163
TL371/0.03-IR-SG390	2-05-371	-1 : 31 ... -1 : 34	0.33 ... 0	< 830	--	273 × 205 ... 300 × 224	220 × 167 ... 241 × 184	198 × 149 ... 218 × 163

*Suppression of unwanted light by means of built-in filters.

We provide technical information to the depth of focus or the telecentric error of a certain lens by our technical support upon request.

Size of imaging device:

1.34" - 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 | ⅕" - 4.8 x 3.6 mm²

Mechanical data

Name	Order No.	Max. object field diagonal	Working distance*	Mounting points	Protection glass SG390**	Weight
TL371/0.03-B	2-05-366	374 mm	100 ... 750 mm	8 × M6	no	9 kg
TL371/0.03-R	2-05-364	374 mm	100 ... 750 mm	8 × M6	no	9 kg
TL371/0.03-IR	2-05-365	374 mm	100 ... 750 mm	8 × M6	no	9 kg
TL371/0.03-SG390	2-05-369	374 mm	100 ... 750 mm	8 × M6	yes	11.6 kg
TL371/0.03-B-SG390	2-05-372	374 mm	100 ... 750 mm	8 × M6	yes	11.6 kg
TL371/0.03-R-SG390	2-05-370	374 mm	100 ... 750 mm	8 × M6	yes	11.6 kg
TL371/0.03-IR-SG390	2-05-371	374 mm	100 ... 750 mm	8 × M6	yes	11.6 kg

*Working distance can be set to definite value on request.

**High-quality front lens of the objective can be protected against impurities and damages by means of protection glass SG390.

Telecentric widefield lenses

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TL371 series

Important advice

Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of protection glass SG390. You shall be screw-on the 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
2-91-119	SG 390	protection glass for telecentric objectives TL 370/371

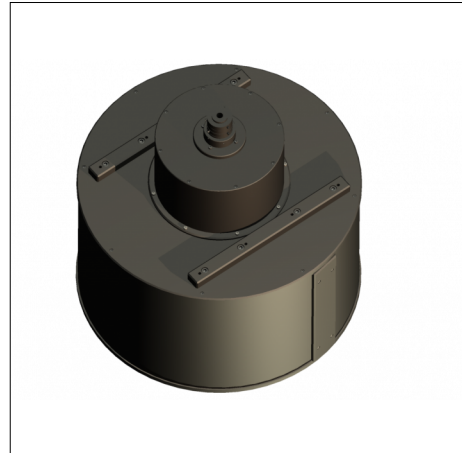
Telecentric widefield lenses

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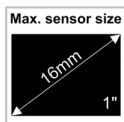
TL380 series

Product features

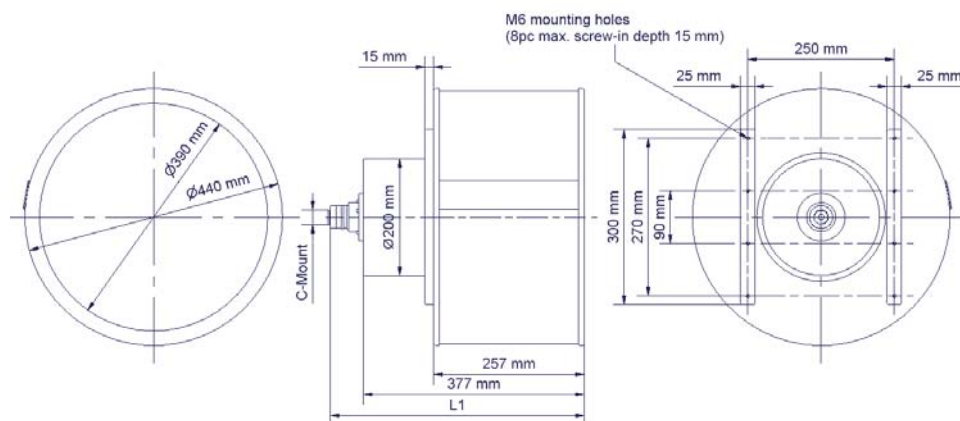
- Object side telecentric light path
- Application for matrix and line cameras up to sensor diagonal/length 16 mm
- Maximum object field diameter 424 mm
- Suitable for checking for the presence, special properties and nondimensional attributes of large objects
- Manual operated iris aperture with fixing
- Robust industrial design: dust-proof, shock-proof, use of plastic lenses
- C-mount (thread connection)
- Telecentric widefield lenses provide the best imaging results in conjunction with monochrome, diffuse vicolux® lighting units



Variants



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Telecentric widefield lenses

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TL380 series

Properties

Optical properties

Maximum distortion 1,5% / fast lenses

Mechanical properties

Flange focal distance 17.53mm / max. diameter of lenses 445mm / environmental temperature -10°C ... 50°C

Optical data

Name	Order no.	Lateral magnification	Image side aperture (adjustable)	Suppressed wavelength* (nm)	Field of view for 1" sensor** (mm²)	Field of view for ¾" sensor (mm²)	Field of view for 1/1.8" sensor (mm²)
TL380/0.04-IR	2-05-374	-1 : 24 ... -1 : 26	0.24 ... 0.027	< 830	306×230 ... 333×250	211×158 ... 229×172	170×130 ... 185×140
TL380/0.04-NIR	2-05-373	-1 : 24 ... -1 : 26	0.24 ... 0.027	< 830 > 1200	311×233 ... 339×254	214×160 ... 233×175	170×130 ... 185×140

*Other suppressed wavelength on request

**Corners cut easy

We provide technical information to the depth of focus or the telecentric error of a certain lens by our technical support upon request.

Size of imaging device:

1" - 12.8 x 9.6 mm² | ¾" - 8.8 x 6.6 mm² | 1/1.8(=5/9)" - 7.1 x 5.4 mm²

Name	Order No.	Max. object field diagonal	Working distance	Total length L1	Mounting points	Weight
TL380/0.04-IR	2-05-374	416 mm	100 ... 750 mm	427 mm	8 × M6	9 kg
TL380/0.04-NIR	2-05-373	424 mm	100 ... 750 mm	433 mm	8 × M6	9 kg

Important advice

Protection glass

High-quality front lens of the objective can be protected against impurities and damages by means of protection glass SG390. You shall be screw-on the 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
2-91-119	SG 390	protection glass for telecentric objectives TL 370/371