

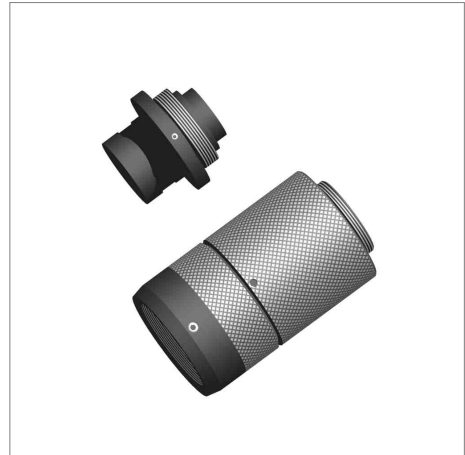
## Entocentric lenses up to 1.2" imager

vicotar®

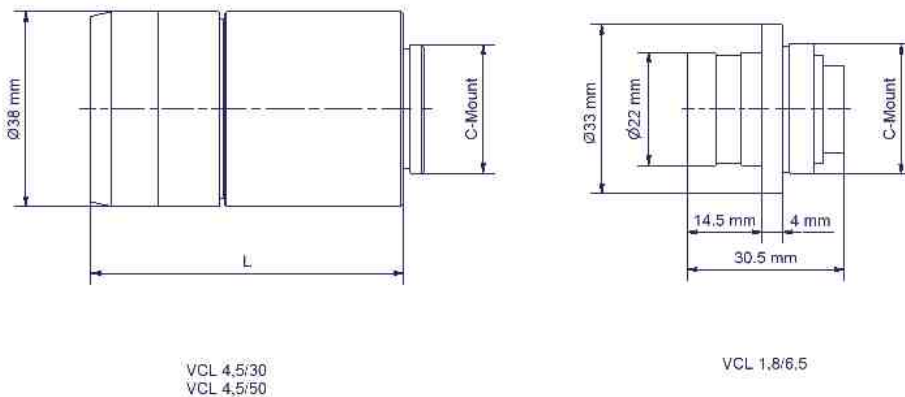
VCL series

### Product features

- Standard lenses with fixed focal length
- Range of three models ( $f = 6.5, 30\text{mm}, 75\text{mm}$ )
- Application for matrix and line cameras up to sensor diagonal/length 21.4 mm
- Low distortion
- Manual operated iris aperture with fixing
- Robust industrial design: dust-proof, shock-proof
- C-mount (thread connection)



### Engineering drawing



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Manual

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Up to  
1.2"  
imager

### Properties

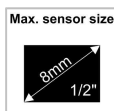
#### Optical properties

Spectral range 380...900nm / colour-corrected / fast lenses

#### Mechanical properties

environmental temperature -10°C ... 50°C

### Options



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### Optical data

Name	Order no.	Focal length [mm]	Relative aperture	Object angle for 1.2" sensor (hor. x vert.) [°]	Object angle for 1" sensor (hor. x vert.) [°]	Object angle for 2/3" sensor (hor. x vert.) [°]	Object angle for 1/2" sensor (hor. x vert.) [°]	Object angle for 1/3" sensor (hor. x vert.) [°]
VCL 1,8/6,5	2-10-310	6,5	1,8 ... 16	--	--	--	59 × 48	43 × 35
VCL 4,5/30	2-10-311	30	4,5 ... 16	28 × 28	24 × 18	17 × 12	13 × 9	10 × 6
VCL 4,5/50	2-10-313	50	4,5 ... 16	17 × 17	14 × 10	10 × 7	7 × 5	5 × 4

Size of imaging device:

1.2" - 15.2 x 15.2 mm<sup>2</sup> | 1" - 12.8 x 9.6 mm<sup>2</sup> | 2/3" - 8.8 x 6.6 mm<sup>2</sup> | 1/2" - 6.4 x 4.8 mm<sup>2</sup> | 1/3" - 4.8 x 3.6 mm<sup>2</sup>

### Mechanical data

Name	Order no.	Distance setting	Max. diameter of lens	Length from bearing surface L	Comment	Weight
VCL 1,8/6,5	2-10-310	fixable	33 mm	19 ... 22 mm	--	30 g
VCL 4,5/30	2-10-311	*	38 mm	38 mm	low distortion	120 g
VCL 4,5/50	2-10-313	*	38 mm	60 mm	low distortion	240 g

\*Distance setting set to ∞; smaller distances adjustable with extension tubes.

### Important advice

The VCL4.5/30 and VCL4.5/50 objectives do not have any means of focusing and are set to infinity by default. Shorter working distances can be achieved by using standard extension tubes, resulting in different fields of view (see tables).

VCL 4.5/30		Field of view / mm for			
Length of extension tube	Working distance	1/3" sensor	1/2" sensor	2/3" sensor	1" sensor
mm	mm				
0	∞	∞	∞	∞	
5	194	28 × 21	37.2 × 27.9	50 × 39.5	74.4 × 55.8
10	104	14.5 × 10.9	19.3 × 14.5	26 × 20.6	38.6 × 29
15	74	9.8 × 7.3	13 × 9.8	17.5 × 13.8	26 × 19.6
20	59	7.3 × 5.4	9.7 × 7.3	13 × 10.3	19.4 × 14.6
25	48	6.1 × 4.6	8.2 × 6.1	11 × 8.7	16.4 × 12.2

VCL 4.5/50		Field of view / mm for			
Length of extension tube	Working distance	1/3" sensor	1/2" sensor	2/3" sensor	1" sensor
mm	mm				
0	∞	∞	∞	∞	
5	519	45.2 × 33.9	60.3 × 45.2	81 × 64	120.6 × 90.4
10	285	23.4 × 17.6	31.3 × 23.4	42 × 33.2	62.6 × 46.8
15	205	16 × 12	21.2 × 15.9	28.5 × 22.5	42.4 × 31.8
20	163	12 × 9	16 × 12	21.5 × 17	32 × 24
25	138	9.8 × 7.3	13 × 9.8	17.5 × 13.8	26 × 19.6

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### ▣ Scope of delivery

Order no.	Name	Description
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### ▣ Application