

Telecentric Lenses

SE-65/110 Series



Product Lineup

- Two working distances: 65 mm and 110 mm.
- Both Coaxial and Straight Types are available.
- Magnifications: x0.8, x1, x1.5, x2, and x4.

SE-65 Series



Coaxial

Straight

SE-110 Series



Coaxial

Straight

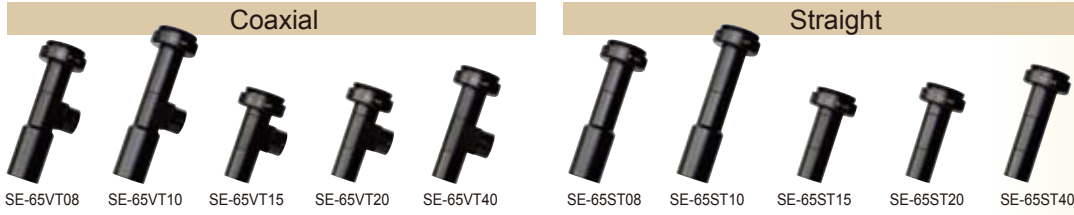
CCS Telecentric Lenses

The SE-65/110 Series is a bright object-space telecentric lens ensuring high performance for a wide range of applications including size measurement.

WD: 65 mm

SE-65 Series

Ideal for Coaxial Type!



Specifications

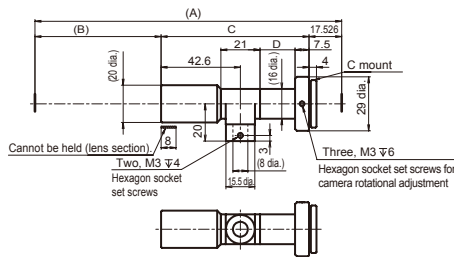
Type	Coaxial Type	SE-65VT08	SE-65VT10	SE-65VT15	SE-65VT20	SE-65VT40
	Straight Type	SE-65ST08	SE-65ST10	SE-65ST15	SE-65ST20	SE-65ST40
Lens type						
Object-space telecentric lenses (fixed magnification)						
Optical magnification		x0.8 ± 5 %	x1.0 ± 5 %	x1.5 ± 5 %	x2.0 ± 5 %	x4.0 ± 5 %
WD		67.7 ± 2 mm	65.2 ± 2 mm	65.0 ± 2 mm	65.1 ± 2 mm	65.1 ± 2 mm
Depth of field ^{1, 2}		1.85 mm	1.33 mm	0.59 mm	0.33 mm	0.13 mm
Resolution ^{2, 3}		12.4 μm	11.2 μm	7.5 μm	5.6 μm	4.3 μm
NA ²		0.027	0.030	0.045	0.060	0.078
Effective F No. (Fe) ²		14.9	16.8	16.7	16.7	25.4
TV distortion ²		-0.027 %	-0.010 %	-0.017 %	-0.013 %	+0.006 %
Weight	Coaxial Type	50 g	54 g	37 g	38 g	40 g
	Straight Type	45 g	49 g	32 g	33 g	35 g
Mount		C mount				
Maximum applicable image size		1/1.8 inch				
Lens barrel outer diameter		20 mm dia.			16 mm dia.	
Lens barrel length		79.4 mm	89.4 mm	50.8 mm	53.2 mm	64.4 mm
Operating wavelengths		400 to 700 nm				
Object to image distance (O/I) ²		164.6 mm	172.1 mm	133.3 mm	135.8 mm	147 mm
Focal length ²		90.7 mm	100.9 mm	19.2 mm	13.7 mm	9.5 mm
Operating environment		0 to 40°C, 85% RH max. (with no condensation)				
Storage environment		-20 to 60°C (with no condensation)				
Environmental regulations		RoHS compliant, REACH compliant				

¹ The depth of field was obtained with a permissible circle of confusion of 40 μm. ² These are design values. ³ The resolution was obtained at a wavelength of 550 nm.

Dimensions (mm)

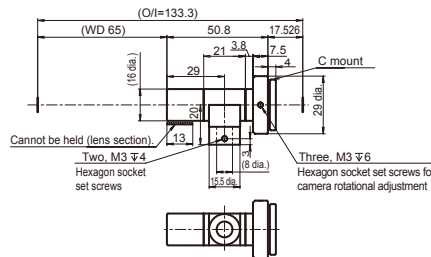
Coaxial

SE-65VT08/SE-65VT10

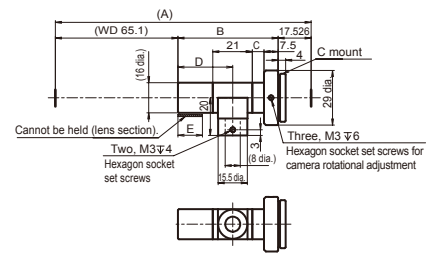


	SE-65VT08	SE-65VT10
A	O/I=164.6	O/I=172.1
B	WD 67.7	WD 65.2
C	79.4	89.4
D	18.8	28.8

SE-65VT15



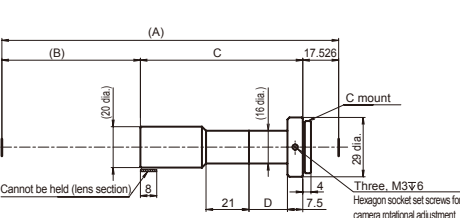
SE-65VT20/SE-65VT40



	SE-65VT20	SE-65VT40
A	O/I=135.8	O/I=147
B	53.2	64.4
C	6.2	18.5
D	29	27.9
E	13	11

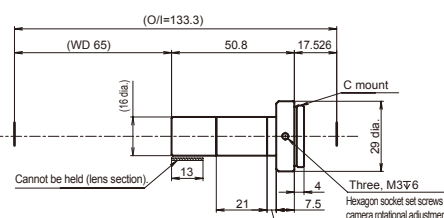
Straight

SE-65ST08/SE-65ST10

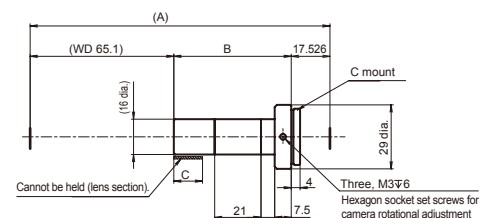


	SE-65ST08	SE-65ST10
A	O/I=164.6	O/I=172.1
B	WD 67.7	WD 65.2
C	79.4	89.4
D	18.8	28.8

SE-65ST15



SE-65ST20/SE-65ST40



	SE-65ST20	SE-65ST40
A	O/I=135.8	O/I=147
B	53.2	64.4
C	13	11
D	6.2	18.5

Seamless Service with Lenses and Light Units

Ideal for Straight Type!

Complete Light Unit Lineup



WD: 110 mm — SE-110 Series



Specifications

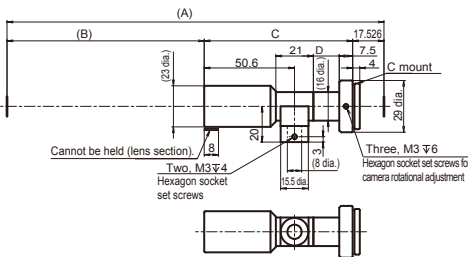
Type	Coaxial Type	SE-110VT08	SE-110VT10	SE-110VT15	SE-110VT20	SE-110VT40
	Straight Type	SE-110ST08	SE-110ST10	SE-110ST15	SE-110ST20	SE-110ST40
Lens type						
Object-space telecentric lenses (fixed magnification)						
Optical magnification		x0.8 ± 5 %	x1.0 ± 5 %	x1.5 ± 5 %	x2.0 ± 5 %	x4.0 ± 5 %
WD		110.4 ± 3.3 mm	110.0 ± 3.3 mm	114.1 ± 3.4 mm	110.0 ± 3.3 mm	110.0 ± 3.3 mm
Depth of field ^{*1} *2		2 mm	1.6 mm	0.86 mm	0.65 mm	0.2 mm
Resolution ^{*2} *3		13.4 μm	13.4 μm	10.8 μm	10.8 μm	6.6 μm
NA ^{*2}		0.025	0.025	0.031	0.031	0.051
Effective F No. (F _e) ^{*2}		16.0	19.9	24.0	32.0	39.5
TV distortion ^{*2}		-0.05 %	-0.05 %	+0.01 %	-0.01 %	+0.01 %
Weight	Coaxial Type	54 g	56 g	48 g	50 g	50 g
	Straight Type	49 g	51 g	43 g	45 g	45 g
Mount		C mount				
Maximum applicable image size		1/1.8 inch				
Lens barrel outer diameter		23 mm dia.			18 mm dia.	
Lens barrel length		83.1 mm	86.3 mm	76.4 mm	88.6 mm	84.9 mm
Operating wavelengths		400 to 700 nm				
Object to image distance (O/I) ^{*2}		211 mm	213.9 mm	208 mm	216.1 mm	212.5 mm
Focal length ^{*2}		57.7 mm	44.4 mm	24.5 mm	24.5 mm	12.2 mm
Operating environment		0 to 40°C, 85% RH max. (with no condensation)				
Storage environment		-20 to 60°C (with no condensation)				
Environmental regulations		RoHS compliant, REACH compliant				

*1 The depth of field was obtained with a permissible circle of confusion of 40 μm. *2 These are design values. *3 The resolution was obtained at a wavelength of 550 nm.

Dimensions (mm)

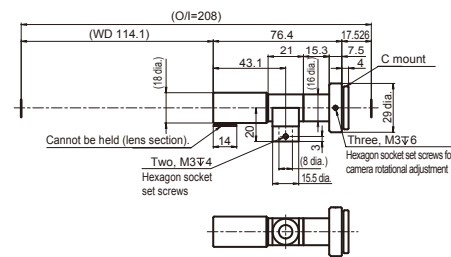
Coaxial

SE-110VT08/SE-110VT10

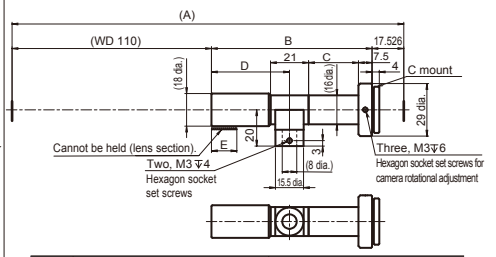


	SE-110VT08	SE-110VT10
A	O/I=211	O/I=213.9
B	WD 110.4	WD 110
C	83.1	86.3
D	14.5	17.7

SE-110VT15



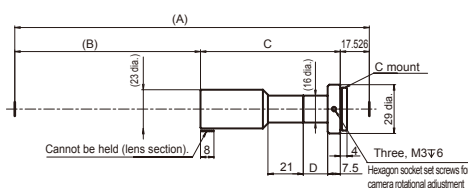
SE-110VT20/SE-110VT40



	SE-110VT20	SE-110VT40
A	O/I=216.1	O/I=212.5
B	88.6	84.9
C	27.5	30.4
D	43.1	36.5
E	14	11

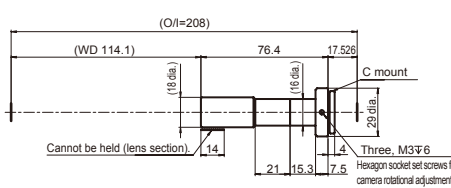
Straight

SE-110ST08/SE-110ST10

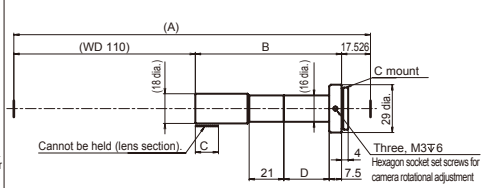


	SE-110ST08	SE-110ST10
A	O/I=211	O/I=213.9
B	WD 110.4	WD 110
C	83.1	86.3
D	14.5	17.7

SE-110ST15



SE-110ST20/SE-110ST40



	SE-110ST20	SE-110ST40
A	O/I=216.1	O/I=212.5
B	88.6	84.9
C	14	11
D	27.5	30.4

Feel free to inquire about borrowing Telecentric Lenses and Light Units!

Telecentric Lenses

WD: 65 mm



Coaxial

Straight

WD: 110 mm



CCS Provides Thousands of Models of Light Units

+



Flexibly combine Lenses and Light Units!

We'll recommend the best models from CCS's vast lineup of Light Units.

CCS also has many other models of Light Units. Contact your CCS representative for details.

Demo/Evaluation Products Free of Charge

We lend you Demo/Evaluation Products free of charge so that you can see the product quality for yourself and to provide rapid support to solve customer issues. Feel free to contact your CCS representative for details.

For details, please contact the CCS sales office nearest you.

Demo Requests

Quotation Requests

Light Unit and Lens Selection Requests

Technical Support

Visits and Testing at CCS

Please feel free to contact us on any consultations or requests.

● Use the CCS Website



CCS Website URL

<http://www.ccs-grp.com>

Demo Requests

Quotation Requests

Light Unit Selection Requests

Use the CCS website to request what you need. CCS is waiting to serve you.
(Registration as a member is required.)

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NOTICE

● Carefully read the product's instruction manual before use to ensure correct operation. ● For product improvement, specifications and designs are subject to change without notice.

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