High-resolution Telecentric Lenses
SE-65-M/SE-110-M series

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Compatible with 5-megapixel cameras*1
Ideal for the combination with megapixel cameras*2

*1 2/3"L (5.98 mm height, 11.26 mm width) and 3.45 µm/pixel, Applicable models: SE-110VT03-5M and SE-110ST03-5M
*2 Approx. 4.65 µm/pixel min.

SE-65-M series (WD 65 mm)

Coaxial type, 0.5x to 6.0x

Straight type, 0.5x to 6.0x

SE-110-M series (WD 110 mm)

Coaxial type 0.3x to 4.0x

Straight type 0.3x to 4.0x

Specifications (SE-65-M series)

Model name (Coaxial type)	SE-65VT05-M	SE-65VT08-M	SE-65VT10-M	SE-65VT20-M	SE-65VT40-M	SE-65VT60-M
Model name (Straight type)	SE-65ST05-M	SE-65ST08-M	SE-65ST10-M	SE-65ST20-M	SE-65ST40-M	SE-65ST60-M
Optical magnification	0.5x±5%	0.8x±5%	1.0x±5%	2.0x±5%	4.0x±5%	6.0x±5%
WD	65.1±2 mm	65.4±2 mm	65.1±2 mm	65.2±2 mm	65.3±2 mm	64±2 mm
Depth of field *1*2	2.87 mm	1.18 mm	0.79 mm	0.26 mm	0.08 mm	0.06 mm
Resolution *2*3	12.0 µm	8.0 µm	6.7 µm	4.4 µm	2.9 µm	2.9 µm
NA *2	0.028	0.042	0.05	0.076	0.118	0.118
Actual F-number (Fe) *2	9.0	9.4	9.8	12.9	16.9	25.5
TV distortion *2	-0.001%	+0.006%	-0.023%	+0.021%	-0.003%	-0.026%
Weight (Coaxial)	80 g	62 g	54 g	55 g	85 g	100 g
Weight (Straight)	77 g	57 g	49 g	49 g	83 g	98 g
Mount	C mount					
Maximum applicable image size	2/3 inch (Ø11.00 mm)			2/3 inch L (Ø12.75 mm)		
Physical distance (O/I) *2	171.1 mm	171.5 mm	161 mm	160.9 mm	184.5 mm	216.7 mm

*1 The depth of field is a value calculated using 40 µm as the permissible circle of confusion.
*2 These are calculated values.
*3 The resolution is a value calculated using a 550 nm wavelength. The specifications above are values based on the optical design. Differences between individual devices may occur due to assembly accuracy, etc.

Field of vision chart (SE-65-M series)

These values are for reference.

Model name (Coaxial type)	SE-65VT05-M	SE-65VT08-M	SE-65VT10-M	SE-65VT20-M	SE-65VT40-M	SE-65VT60-M
Model name (Straight type)	SE-65ST05-M	SE-65ST08-M	SE-65ST10-M	SE-65ST20-M	SE-65ST40-M	SE-65ST60-M
Optical magnification	0.5x	0.8x	1.0x	2.0x	4.0x	6.0x
Sensor size	2/3 inch			2/3 inch L		
Length	13.20 mm	8.25 mm	6.60 mm	2.99 mm	1.50 mm	1.00 mm
Width	17.60 mm	11.0 mm	8.80 mm	5.63 mm	2.82 mm	1.88 mm
Diagonal	22.00 mm	13.75 mm	11.00 mm	6.38 mm	3.19 mm	2.13 mm

For other fields of vision, refer to the field of vision chart in the Technical Guide. ▶ P.312

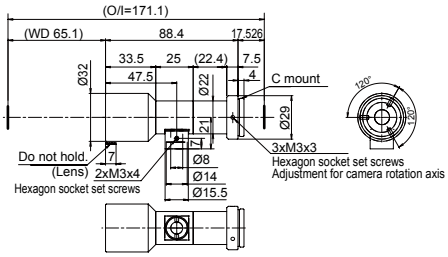
LDR2
LDR2-LA
LDR-LA1
SQR
SQR-TP
Direct Lighting
HPR2
LFR
LKR
FPR
FPQ2
Diffused Lighting
LDL2
LDLB
HLDL2
HL
Direct Lighting
TH2 (5 types)
TH
LFL
HPD2
LDM2
LAV
PDM
LFX3
LFX3-PT
LFX2
LFV3
Diffused Lighting
MSU
MFU
Collimated Lighting
PF
Strobe Lighting
HLDR-IP/IQ/HSL-PCL
Water-proof
UV2
UV
LNSP-UV-FN
Ultraviolet Lighting
IR2
Infrared Lighting
IU
Intensity Control
HLV2
LV
LSP
HFS/HFR
HLV2-NR
HLV2-3M-RGB-3W
PFBR
PFB2
Spot Lighting, Etc.
LNLP
LNSP2
LNSP
Coaxial Units
LNSP-FN
LN/LN-HK
Convergent Lighting
LNSD
LND2
HLND
LT
LNV/HLDN
Diffused Lighting
LNDG
LNIS2
LNIS
LNIS-FN
Oblique Angled Lighting
Telecentric Lens
Macro Lens
Lenses

Various technical documents available.
PDF Drawings | DXF Drawings | 3D CAD | Instruction Guides | Product Fliers | Imaging Samples | Data Sheets | Examples of Custom Ordered Products
Download here.
http://www.ccs-grp.com/dl/

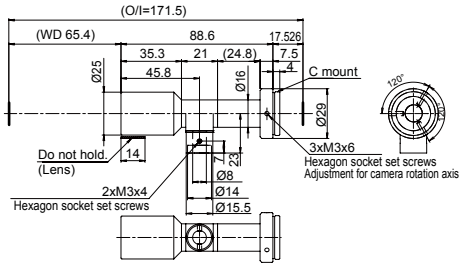
Dimensions (SE-65-M series, mm)

Coaxial type

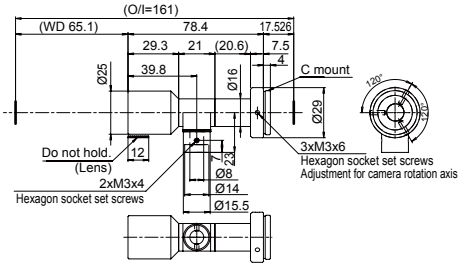
SE-65VT05-M



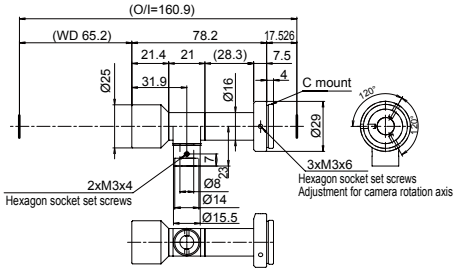
SE-65VT08-M



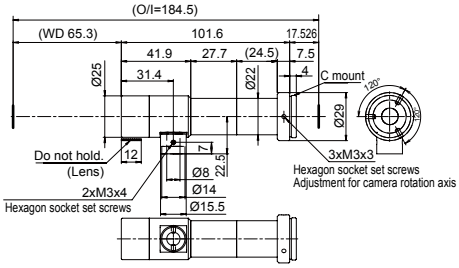
SE-65VT10-M



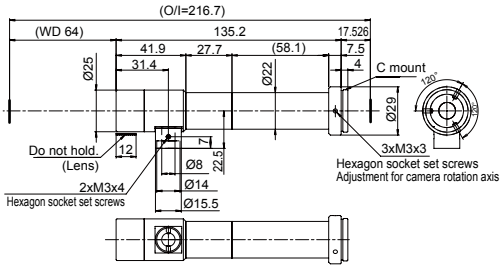
SE-65VT20-M



SE-65VT40-M

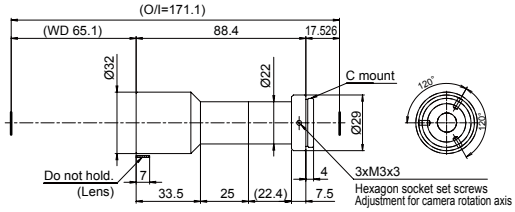


SE-65VT60-M

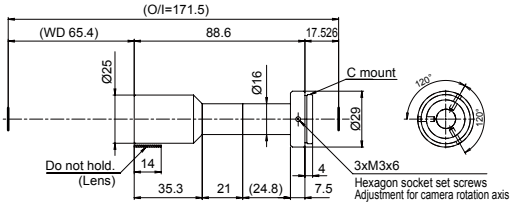


Straight type

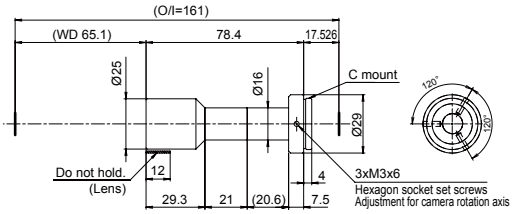
SE-65ST05-M



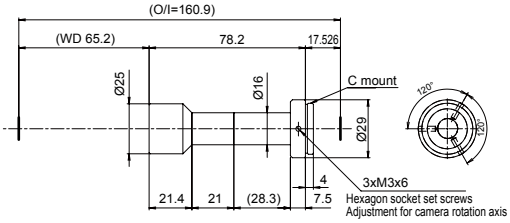
SE-65ST08-M



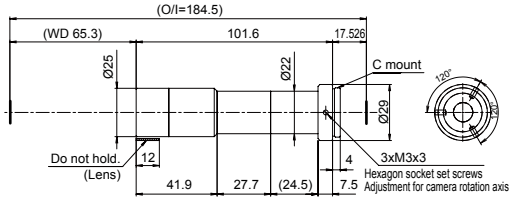
SE-65ST10-M



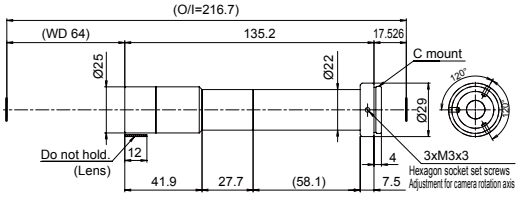
SE-65ST20-M



SE-65ST40-M



SE-65ST60-M



SE-65-M/SE-110-M series

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You can also use your smartphone or cell phone.

Specifications (SE-110-M series)

5 M

Model name (Coaxial type)	SE-110VT03-5M	SE-110VT05-M	SE-110VT08-M	SE-110VT10-M	SE-110VT15-M	SE-110VT20-M	SE-110VT30-M	SE-110VT40-M
Model name (Straight type)	SE-110ST03-5M	SE-110ST05-M	SE-110ST08-M	SE-110ST10-M	SE-110ST15-M	SE-110ST20-M	SE-110ST30-M	SE-110ST40-M
Optical magnification	0.3x±5%	0.5x±5%	0.8x±5%	1.0x±5%	1.5x±5%	2.0x±5%	3.0x±5%	4.0x±5%
WD	110.3±3.3 mm	110.8±3.3 mm	110.1±3.3 mm	110.5±3.3 mm	110.1±3.3 mm	110.6±3.3 mm	111.4±3.3 mm	110.5±3.3 mm
Depth of field *1*2	5.75 mm	3.03 mm	1.31 mm	0.82 mm	0.42 mm	0.27 mm	0.14 mm	0.11 mm
Resolution *2*3	14.5 µm	12.7 µm	8.8 µm	6.9 µm	5.2 µm	4.5 µm	3.6 µm	3.7 µm
NA *2	0.023	0.026	0.038	0.049	0.064	0.075	0.094	0.091
Actual F-number (Fe) *2	6.5	9.4	10.3	10.2	11.7	13.0	16.0	21.9
TV distortion *2	+0.026%	-0.009%	-0.026%	-0.0007%	+0.024%	-0.018%	+0.008%	-0.004%
Weight (Coaxial)	212 g	131 g	106 g	108 g	110 g	115 g	166 g	121 g
Weight (Straight)	211 g	128 g	103 g	105 g	108 g	113 g	160 g	120 g
Mount	C mount							
Maximum applicable image size	2/3 inch L (Ø12.75 mm)	2/3 inch (Ø11.00 mm)	2/3 inch L (Ø12.75 mm)					2/3 inch (Ø11.00 mm)
Physical distance (O/I) *2	268.2 mm	259.7 mm	254.2 mm	255.8 mm	256.9 mm	255.8 mm	272.9 mm	256.7 mm

*1 The depth of field is a value calculated using 40 µm as the permissible circle of confusion.
*2 These are calculated values.
*3 The resolution is a value calculated using a 550 nm wavelength. The specifications above are values based on the optical design. Differences between individual devices may occur due to assembly accuracy, etc.

Field of vision chart (SE-110-M series)

These values are for reference.

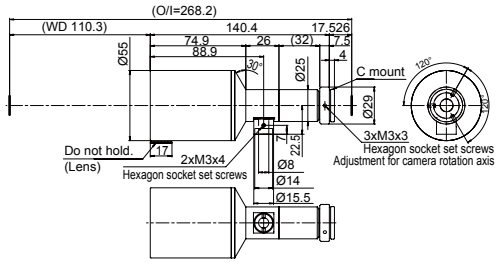
Model name (Coaxial type)	SE-110VT03-5M	SE-110VT05-M	SE-110VT08-M	SE-110VT10-M	SE-110VT15-M	SE-110VT20-M	SE-110VT30-M	SE-110VT40-M
Model name (Straight type)	SE-110ST03-5M	SE-110ST05-M	SE-110ST08-M	SE-110ST10-M	SE-110ST15-M	SE-110ST20-M	SE-110ST30-M	SE-110ST40-M
Optical magnification	0.3x	0.5x	0.8x	1.0x	1.5x	2.0x	3.0x	4.0x
Sensor size	2/3 inch L	2/3 inch	2/3 inch L					2/3 inch
Length	19.95 mm	13.20 mm	7.48 mm	5.98 mm	3.99 mm	2.99 mm	1.99 mm	1.65 mm
Width	37.55 mm	17.60 mm	14.08 mm	11.26 mm	7.51 mm	5.63 mm	3.75 mm	2.20 mm
Diagonal	42.52 mm	22.00 mm	15.94 mm	12.75 mm	8.50 mm	6.38 mm	4.25 mm	2.75 mm

For other fields of vision, refer to the field of vision chart in the Technical Guide. ▶ P.312

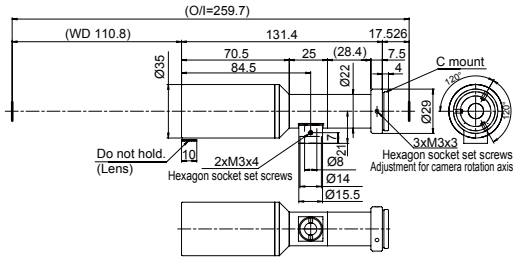
Dimensions (SE-110-M series, mm)

Coaxial type

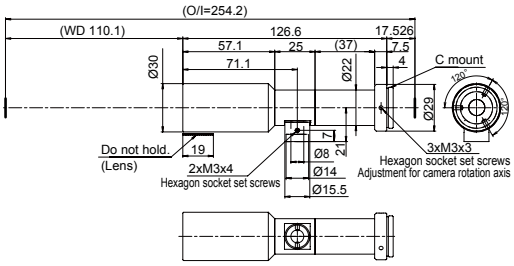
SE-110VT03-5M



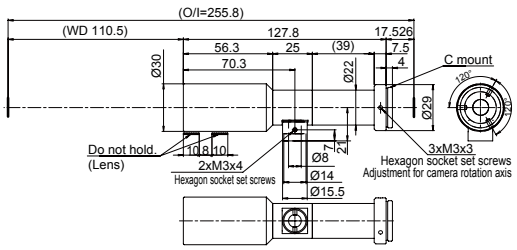
SE-110VT05-M



SE-110VT08-M



SE-110VT10-M

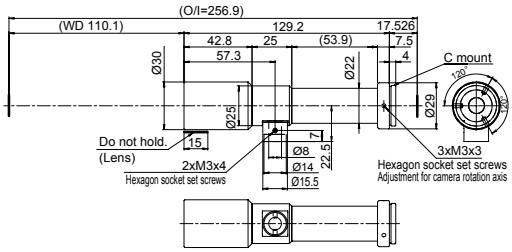


Various technical documents available.
PDF Drawings | DXF Drawings | 3D CAD | Instruction Guides | Product Fliers | Imaging Samples | Data Sheets | Examples of Custom Ordered Products
Download here.
http://www.ccs-grp.com/dl/

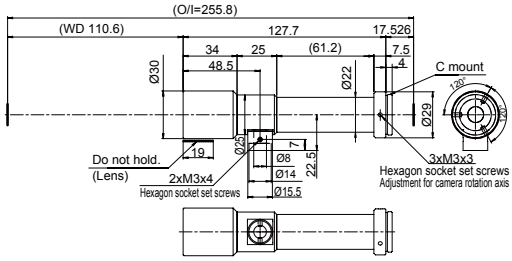
Dimensions (SE-110-M series, mm, continued)

Coaxial type (continued)

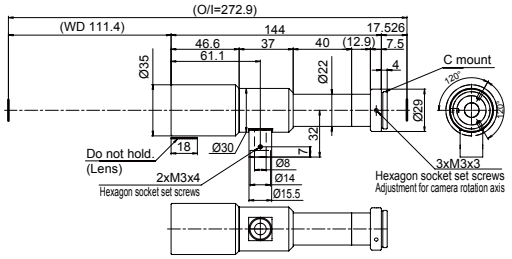
SE-110VT15-M



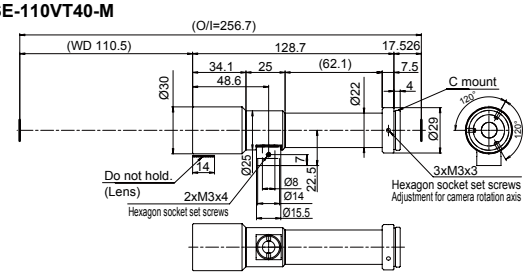
SE-110VT20-M



SE-110VT30-M

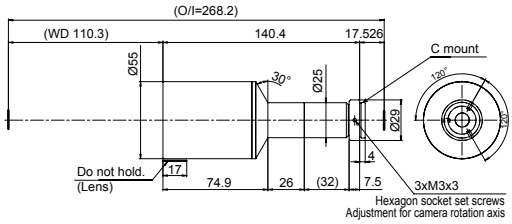


SE-110VT40-M

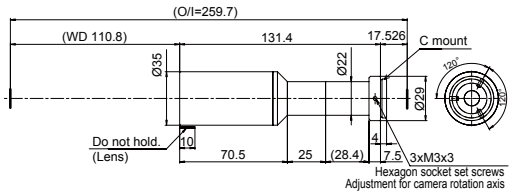


Straight type

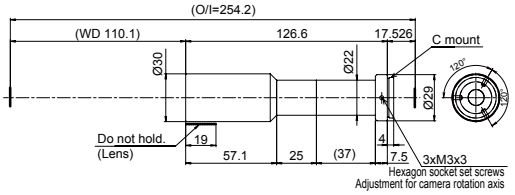
SE-110ST03-5M



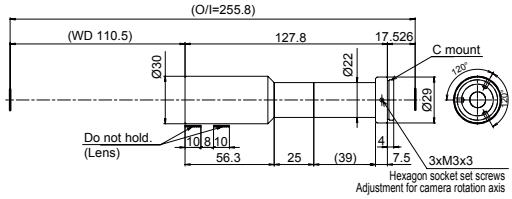
SE-110ST05-M



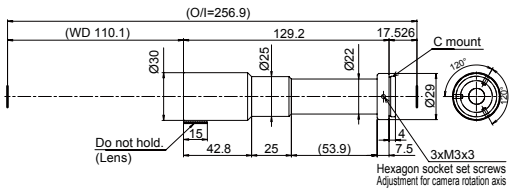
SE-110ST08-M



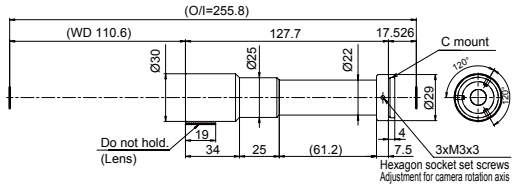
SE-110ST10-M



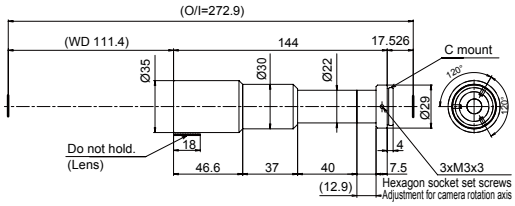
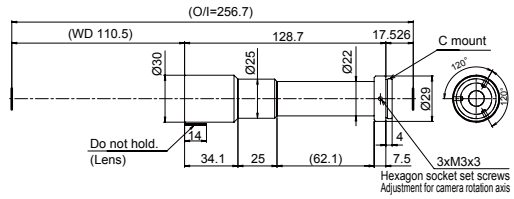
SE-110ST15-M



SE-110ST20-M



SE-110ST30-M



SE-110ST40-M