Macro Lenses
SE-16/SE-18 series

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CCS macro lens ▶ Search
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Original macro lenses that achieve both "high performance" and "low cost"

SE-16 series

Straight type
0.5x to 2x

Coaxial type
0.5x to 2x

Full set

Model: SE-16MS
Set details:
- Straight mount
- Coaxial mount
- Lens unit
- Lens tube (Short)
- Lens tube (Long)

SE-18 series

Straight type
2x to 6x

Coaxial type
2x to 6x

Full set

Model: SE-18MS
Set details:
- Straight lens unit
- Coaxial lens unit
- C mounted ring
- 4x ring
- 6x ring

SE-16/SE-18 series specifications

Coaxial type

Model name	SE-16VM05	SE-16VM1	SE-16VM2	SE-18VM2	SE-18VM4	SE-18VM6
Optical magnification	0.5x	1.0x	2.0x	2.0x	4.0x	6.0x
WD	107 mm	67 mm	47 mm	114±1 mm	110±1 mm	109±1 mm
Depth of field *1	1,900 µm	620 µm	230 µm	380 µm	190 µm	130 µm
Resolution *2	8 µm	5.2 µm	3.9 µm	6.3 µm		
NA	0.042	0.065	0.087	0.053		
Actual F-number (Fe)	5.92	7.88	11.7	18.9	37.7	56.6
TV distortion	-0.026569%	-0.014059%	-0.005588%	-0.058268%	-0.073489%	-0.031328%
Weight	41.9 g	46.3 g	55.8 g	50 g	60 g	65 g
Mount	C mount			C mount		
Maximum applicable image size	1/2 inch			2/3 inch		
Physical distance (O/I)	179.9 mm	160 mm	180.6 mm	201.4 mm	227.1 mm	256.7 mm

*1: The depth of field is a value calculated using 40 µm as the permissible circle of confusion.
*2: 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.

Straight type

Model name	SE-16SM05	SE-16SM1	SE-16SM2	SE-18SM2	SE-18SM4	SE-18SM6
Optical magnification	0.5x	1.0x	2.0x	2.0x	4.0x	6.0x
WD	107 mm	67 mm	47 mm	114±1 mm	110±1 mm	109±1 mm
Depth of field *1	1,900 µm	620 µm	230 µm	380 µm	190 µm	130 µm
Resolution *2	8 µm	5.2 µm	3.9 µm	6.3 µm		
NA	0.042	0.065	0.087	0.053		
Actual F-number (Fe)	5.93	7.74	11.5	18.9	37.7	56.6
TV distortion	-0.001335%	-0.000957%	-0.000232%	-0.058268%	-0.073489%	-0.031328%
Weight	29.6 g	34 g	43.5 g	40 g	50 g	55 g
Mount	C mount			C mount		
Maximum applicable image size	1/2 inch			2/3 inch		
Physical distance (O/I)	179.9 mm	160 mm	180.6 mm	199.1 mm	224.8 mm	254.4 mm

*1: The depth of field is a value calculated using 40 µm as the permissible circle of confusion.
*2: 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.

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/

Field of vision chart

These values are for reference.

Coaxial type

(Unit: mm)

Model name	Optical magnification	Sensor size: 1/2 inch		
		Length	Width	Diagonal
SE-16VM05	0.5x	9.60	12.80	16.00
SE-16VM1	1.0x	4.80	6.40	8.00
SE-16VM05+SE-EX2 (2x rear converter)				
SE-16VM2	2.0x	2.40	3.20	4.00
SE-16VM1+SE-EX2 (2x rear converter)				
SE-16VM2+SE-EX2 (2x rear converter)	4.0x	1.20	1.60	2.00

Model name	Optical magnification	Sensor size: 2/3 inch		
		Length	Width	Diagonal
SE-18VM2	2.0x	3.30	4.40	5.50
SE-18VM4	4.0x	1.65	2.20	2.75
SE-18VM2+SE-EX2 (2x rear converter)				
SE-18VM6	6.0x	1.10	1.47	1.83

Straight type

(Unit: mm)

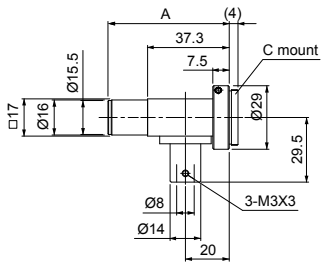
Model name	Optical magnification	Sensor size: 1/2 inch		
		Length	Width	Diagonal
SE-16SM05	0.5x	9.60	12.80	16.00
SE-16SM1	1.0x	4.80	6.40	8.00
SE-16SM05+SE-EX2 (2x rear converter)				
SE-16SM2	2.0x	2.40	3.20	4.00
SE-16SM1+SE-EX2 (2x rear converter)				
SE-16SM2+SE-EX2 (2x rear converter)	4.0x	1.20	1.60	2.00

Model name	Optical magnification	Sensor size: 2/3 inch		
		Length	Width	Diagonal
SE-18SM2	2.0x	3.30	4.40	5.50
SE-18SM4	4.0x	1.65	2.20	2.75
SE-18SM2+SE-EX2 (2x rear converter)				
SE-18SM6	6.0x	1.10	1.47	1.83

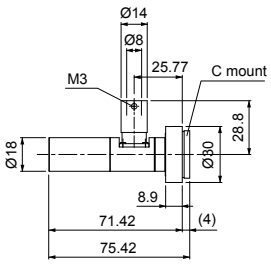
For other fields of vision, refer to the field of vision chart in the Technical Guide. ► P.296

Dimensions (mm)

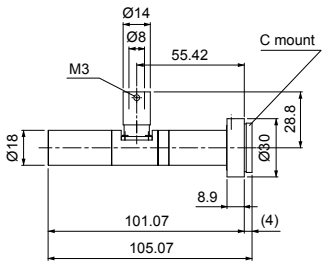
SE-16 (Coaxial)



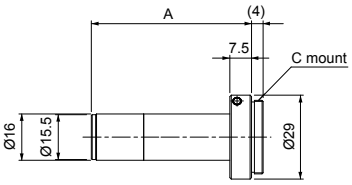
SE-18VM2 (Coaxial)



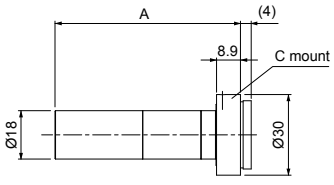
SE-18VM4 (Coaxial)



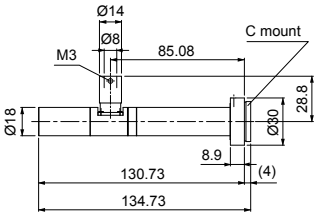
SE-16 (Straight)



SE-18 (Straight)



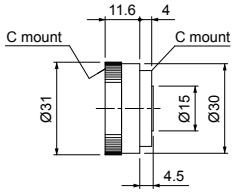
SE-18VM6 (Coaxial)



	Model name	A
Coaxial	SE-16VM05	55.4
	SE-16VM1	75.5
	SE-16VM2	116.1
Straight	SE-16SM05	55.4
	SE-16SM1	75.5
	SE-16SM2	116.1
	SE-18SM2	69.1
	SE-18SM4	98.8
	SE-18SM6	128.4

Options

SE-EX2 (2x rear converter)



Mount between the lens and camera to double the magnification. Be aware this will reduce the brightness and resolution.