

Endoscope Lens



We offer mounting of our lens unit to your sensors.

Please feel free to contact us.

1/6 SEL140-032

1/6 SEL120-034

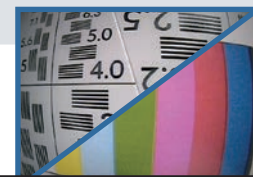
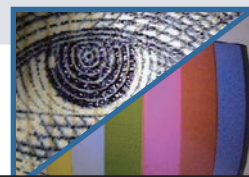
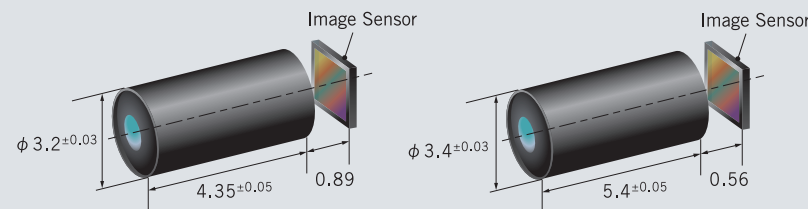
SEL120-022

SEL100-020

Sumita Endoscope Lens

Objective lens units for 1/6 and 1/10 CCD/CMOS image sensors

All our lens units are equipped with aspheric lenses, which realizes brightness and deep depth-of-field.



1/6 Series

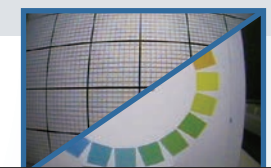
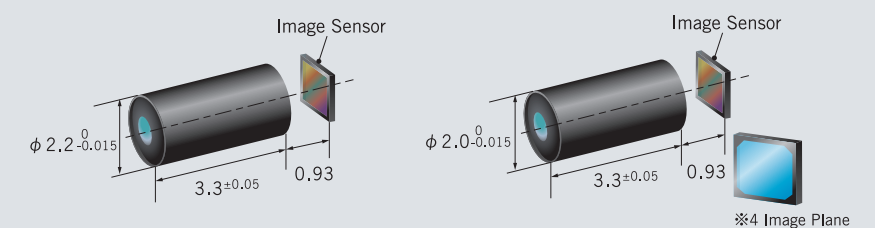
Parameter	1/6 SEL140-032	1/6 SEL120-034
Sensor Size	1/6inch	
Image Circle	3.0mm	
Cover Glass*1	0.3mm	0.5mm

Object Distance (Design Value)	8mm	10mm
Depth of Field	3mm~∞	5mm~100mm
Angle of view	140°	120°
F-number*2	3.5 to 8	3.5 to 10
Back focus*3	0.89mm	0.56mm
Distortion	<45%	<50%
TV distortion	>20%	>40%
Relative illumination	<16°	<1°

Outer diameter	φ 3.2mm	φ 3.4mm
Total length	4.35mm	5.4mm
Mount	-	-

IR cut filter	○	○
Sapphire cover glass	○	-

*1 It is not mounted on the standard lens unit.
*2 F-number is adjustable upon request.
*3 The thickness of cover glass is not included.



1/10 Series

Parameter	SEL120-022	SEL100-020
Sensor Size	1/10inch	
Image Circle	1.8mm	1.8mm*4
Cover Glass*1	0.5mm	

Object Distance (Design Value)	10mm	
Depth of Field	5mm~100mm	
Angle of view	120°	100°
F-number*2	3.5 to 10	
Back focus*3	0.93mm	
Distortion	<35%	<25%
TV distortion	>20%	>25%
Relative illumination	<10°	

Outer diameter	φ 2.2mm	φ 2mm
Total length	3.3mm	
Mount	-	

IR cut filter	○	
Sapphire cover glass	-	

*1 It is not mounted on the standard lens unit.
*2 F-number is adjustable upon request.
*3 The thickness of cover glass is not included.
*4 Vignetting occurs in the corners.

Endoscope Lens



1/11 SEL140-020



1/18 SEL080-015D



1/18 SEL100-015D



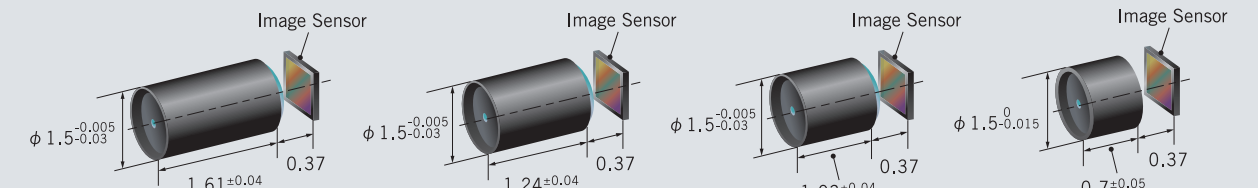
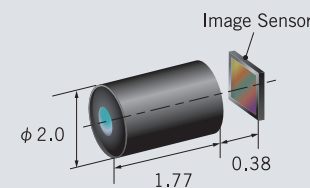
1/18 SEL120-015D



1/18 SEL100-015S

Sumita Endoscope Lens

Objective lens units for 1/11 and 1/18 CCD/CMOS image sensors



/ 1/11 Series



Parameter	1/11 SEL140-020
Sensor Size	1/11inch
Image Circle	1.49mm
Cover Glass*1	0.15mm

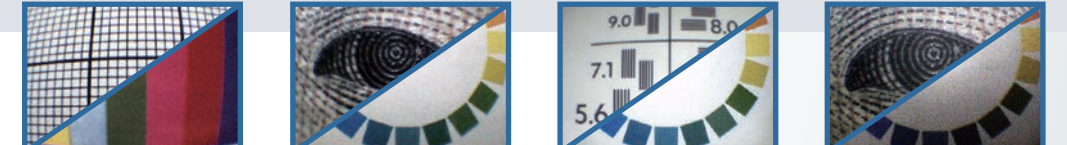
Object Distance (Design Value)	8mm
Depth of Field	3mm~∞
Angle of view	140°
F-number*2	4 to 6
Back focus*3	0.38mm
Distortion	<50%
Relative illumination	>50%
Chief ray angle	<33°

Outer diameter	φ 2.0mm (Changeable)
Total length	1.77mm

IR cut filter	○
Sapphire cover glass	○

*1 It is not mounted on the standard lens unit.
*2 F-number is adjustable upon request.
*3 The thickness of cover glass is not included.

/ 1/18 Series



Parameter	1/18 SEL080-015D	1/18 SEL100-015D	1/18 SEL120-015D	1/18 SEL100-015S
Sensor Size	1/18inch			
Image Circle	1.0mm			
Cover Glass*1	0.4mm			

Object Distance	8mm			
Depth of Field	3mm~100mm			
Angle of view	80°	100°	120°	100°
F-number*2	4.5/5/5.5/6			
Back focus*3	0.37mm			
Distortion	<20%	<32%	<46%	<24%
Relative illumination	>80%	>70%	>60%	>50%
Chief ray angle	<25°			

Outer diameter	φ 1.5mm			
Total length	1.61mm	1.24mm	1.03mm	0.7mm

IR cut filter	-			
Sapphire cover glass	-			

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*2 F-number is adjustable upon request.
*3 The thickness of cover glass is not included.