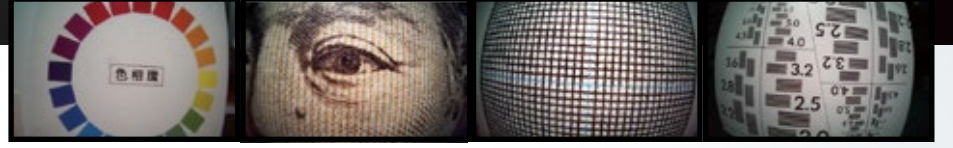


# Endoscope Lens



A module incorporating a CMOS sensor is also available.  
Please feel free to contact us.

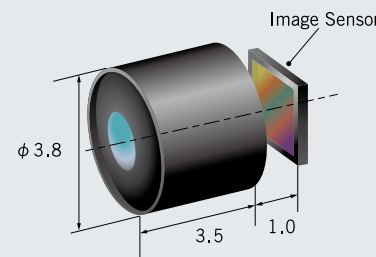


## Sumita Endoscope Lens

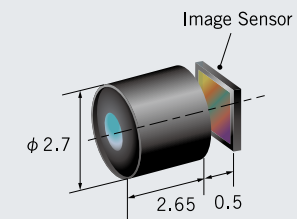
### Objective lens units for 1/6", 1/9" CMOS Sensors

An aspheric lens is adopted for all lens units to achieve brightness and great depth-of-field.

1/6 SEL140-038



1/9 SEL140-027



#### 1/6 Series

Model	1/6 SEL140-038
CMOS size	1/6 inch
Image circle	3.1 mm
Cover Glass*2	0.4 mm

Object distance	8 mm
Depth of field	5 mm - 100 mm
Angle of view	140°
F-number*3	4.5
Back focus*4	1.0 mm
Distortion	<50%
Relative illumination	>45%
Chief ray angle	<35°

Outer diameter	φ 3.8 mm
Total length	3.5 mm

IR cut filter	○
Sapphire cover glass	○

\*1 Suitable for OmniVision's OH02A1S and OV2740 \*2 A Cover glass is not included in standard types.  
\*3 F-number is adjustable upon request. \*4 Cover glass thickness is not included. \*5 Above are only our standard specifications. Custom specifications are available upon request. \*6 Specifications may change without notice.

#### 1/9 Series

Model	1/9 SEL140-027
CMOS size	1/9 inch
Image circle	2.05 mm
Cover Glass*2	0.4 mm

Object distance	8 mm
Depth of field	4 mm - 100 mm
Angle of view	140°
F-number*3	4.5
Back focus*4	0.5 mm
Distortion	<50%
Relative illumination	>45%
Chief ray angle	<35°

Outer diameter	φ 2.7 mm
Total length	2.65 mm

IR cut filter	○
Sapphire cover glass	○

\*1 Suitable for OmniVision's OV9734 \*2 A Cover glass is not included in standard types. \*3 F-number is adjustable upon request.  
\*4 Cover glass thickness is not included. \*5 Above are only our standard specifications. Custom specifications are available upon request.  
\*6 Specifications may change without notice.

# Endoscope Lens



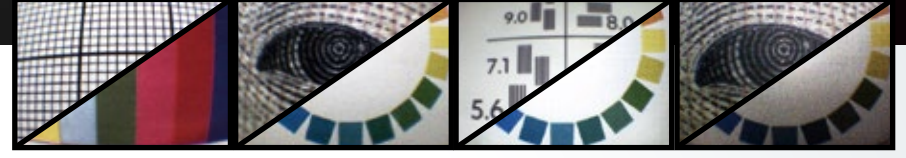
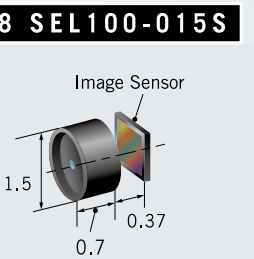
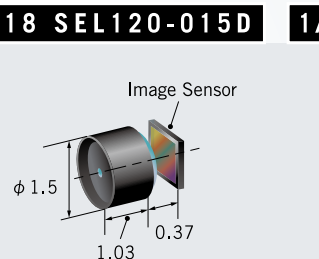
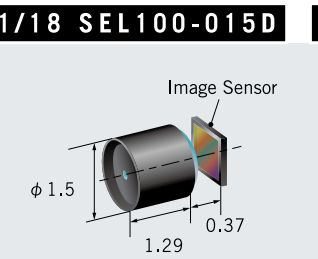
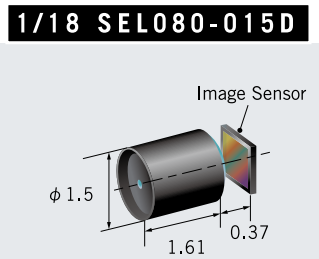
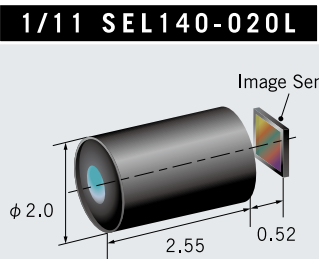
A module incorporating a CMOS sensor is also available.  
Please feel free to contact us.



## Sumita Endoscope Lens

### Objective lens units for 1/11", 1/18" CMOS Sensors

1/11 and 1/18 are most suitable for medical and industrial small-diameter endoscopes.



### 1/11 Series

Model	1/11 SEL140-020L
CMOS size	1/11 inch
Image circle	1.49 mm
Cover Glass <sup>*2</sup>	0.15 mm

Object distance	8 mm
Depth of field	3 mm - 100 mm
Angle of view	140°
F-number <sup>*3</sup>	4 to 6
Back focus <sup>*4</sup>	0.52 mm
Distortion	<50%
Relative illumination	>50%
Chief ray angle	<33°

Outer diameter	φ 2.0 mm (Changeable)
Total length	2.55 mm

IR cut filter	○
Sapphire cover glass	○

\*1 Suitable for OmniVision's OH01A10 \*2 A Cover glass is not included in standard types. \*3 F-number is adjustable upon request.  
\*4 Cover glass thickness is not included. \*5 Above are only our standard specifications. Custom specifications are available upon request.  
\*6 Specifications may change without notice.

### 1/18 Series

Model	1/18 SEL080-015D	1/18 SEL100-015D	1/18 SEL120-015D	1/18 SEL100-015S
CMOS size	1/18 inch			
Image circle	1.0 mm			
Cover Glass <sup>*2</sup>	0.4 mm			

Object distance	8 mm			
Depth of field	3 mm - 100 mm			
Angle of view	80°	100°	120°	100°
F-number <sup>*3</sup>	4.5 / 5 / 5.5 / 6			
Back focus <sup>*4</sup>	0.37 mm			
Distortion	<20%	<32%	<46%	<24%
Relative illumination	>80%	>70%	>60%	>50%
Chief ray angle	<25°			

Outer diameter	φ 1.5 mm			
Total length	1.61 mm	1.29 mm	1.03 mm	0.7 mm

IR cut filter	-			
Sapphire cover glass	-			

\*1 Suitable for OmniVision's OV6946 \*2 A Cover glass is not included in standard types. \*3 F-number is adjustable upon request.  
\*4 Cover glass thickness is not included. \*5 Above are only our standard specifications. Custom specifications are available upon request.  
\*6 Specifications may change without notice.