

Fixed Focal Length Lenses

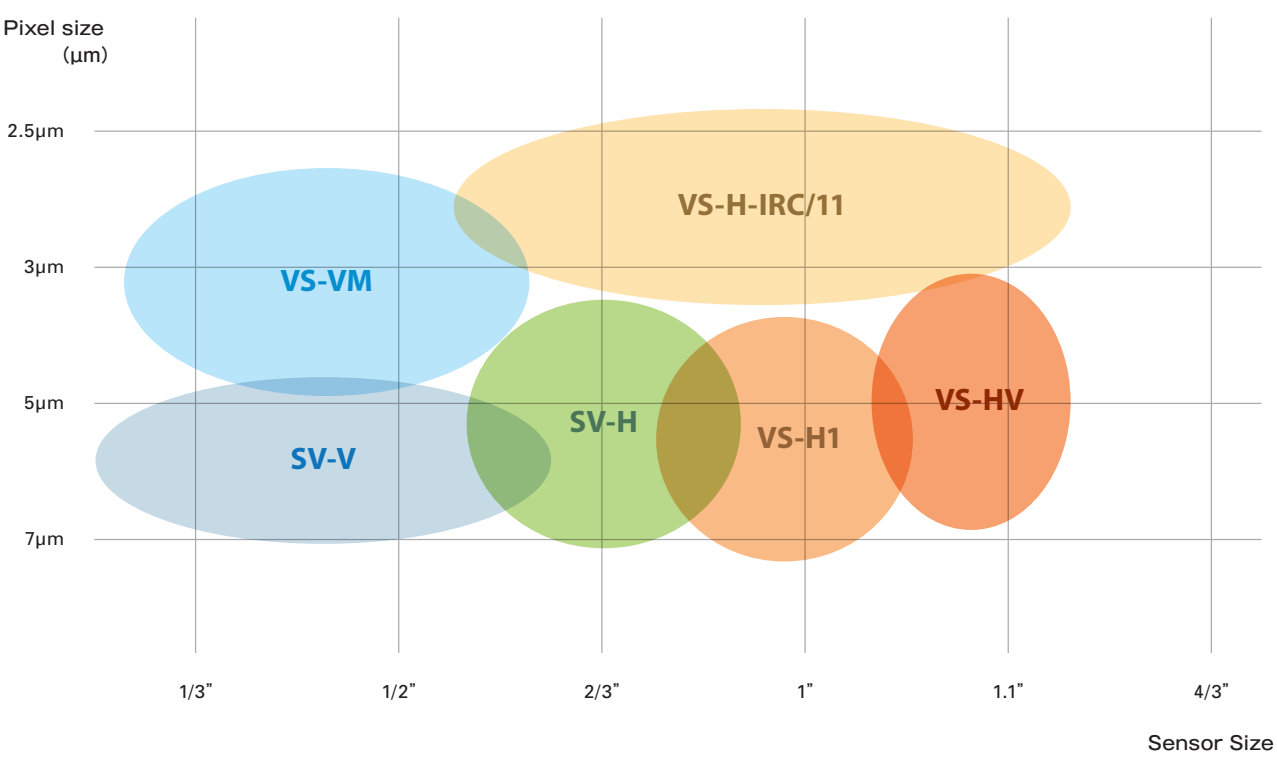


Fixed Focal Length Lenses



VS Technology's fixed focal length lenses are available in a wide range of sensor sizes, vibration-resistant designs, distortion-free designs, IR-corrected designs, and high speed camera compatibility to meet the needs of various applications.

Fixed focal length lens compatibility chart





P8
SV-V

Compact & Wide Angle
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

2 models of f3.5mm and f4.5mm available



P13
VS-B

Board Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

S-mount lens for board camera (M12)



P18
VS-H1

1" Support, High Resolution
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

7 models from f6mm to f50mm available



P22
VS-HV

1.1" Support, High Resolution
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

Compatible with 12MP/3.45µm, 3 models of f8mm/12mm/f18mm available



P25
VS-H/3CMOS

Fixed Focal Length Lenses
for 3CMOS Camera

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

Exclusive 1/1.8" & 3CMOS, 4 models of f8mm/12mm/16mm/25mm available



P28
VS-MCH1

1" Support, Ruggedized Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

6 models from f8mm - f50mm available, hexagon mount for torque control adopted



P10
VS-VM

High Contrast
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

Compatible with 1/1.8"/3.3µm, 7 models from f6mm to f50mm available, Compact design with high resolution by employing F1.8



P14
SV-H

2/3" Support, High Resolution
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

Fixed focal length lenses for megapixels, 12 models from f6mm - f100mm available. f75mm - f100mm supports up to 1"



P21
VS-H-IRC/11

1.1" & 4K Support, IR-Corrected
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

Compatible with 12MP/3.45µm, 3 models of 12mm/16mm/25mm available



P24
VS-085

Fixed Focal Length Lenses
for High Speed Camera

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

Compatible with 4/3", F/#0.85 and a floating model are adopted to maintain performance over the entire range and enable high-definition image acquisition at fast shutter speeds



P26
VS-FT12HV

1.1" Support, Focus
Tunable Wide Angle
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

12MP compatible, current control allows wide range focus adjustment from 150mm to infinity



P30
VS-H1-SWIR

1" Support, SWIR
Fixed Focal Length Lenses

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"

7 models from f6mm to f50mm available, lens with high transmittance of 700nm to 2000nm due to special coating

SV-V Series

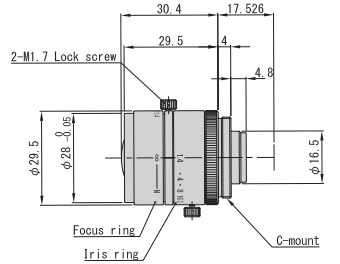
- 1/4"1/3"1/2"1/1.8"2/3"1"1.1"4/3"
- φ21φ28.6φ35φ45φ62φ73φ83φ90



- f3.5mm and f4.5 mm, 2 models
- Adjustable iris & focus

SV-03514V

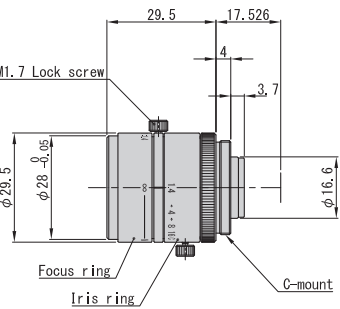
※Filter adapter, SV-FAD28-305, is available. (P143)



Focal Length (f)	3.5 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ Close
Angle of View (1/2")	77.8° x 105.9°
M.O.D	200 mm
TV Distortion (1/2")	-14.65 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/2"
Weight (approx.)	52 g
Dimension	φ29.5(max.) x L = 30.4 mm

SV-04514V

※Filter adapter, SV-FAD28-305, is available. (P143)



Focal Length (f)	4.5 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ Close
Angle of View (1/2")	59.7° x 79.9°
M.O.D	200 mm
TV Distortion (1/2")	-8.15 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/2"
Weight (approx.)	54 g
Dimension	φ29.5(max.) x L = 29.5 mm

Table for WD, FOV and Extension Tube Length (Reference)

Extension Tube (mm)	Model	SV-03514V		SV-04514V	
		Focal Length	Focus	Focal Length	Focus
0	WD	200	200	200	200
	1/2"	266.7x355.6	218.2x290.9	218.2x290.9	218.2x290.9
	1/3"	200.0x266.7	163.6x218.2	163.6x218.2	163.6x218.2
	Mag.	0.018x	0.022x	0.022x	0.022x

Description of the table (mm)

Extension Tube (mm)	Model	SV-○○○○○V		
		Focal Length	Focus	
5	WD	103	130	Object Distance(mm)
	1/3"	14x19	19x25	The distance between the object and the front of the lens
	1/2"	18x24	24x32	FOV with a 1/3" sensor
	Mag.	0.25x	0.20x	FOV with a 1/2" sensor
				Optical Magnification

Length of Extension Tube (t)

About polarization SV-PL series (linear polarization filter)

By using a linear polarization filter, it is possible to narrow down the light source and remove/reduce unnecessary gloss. In order to obtain the polarization effect, it is basically necessary to insert a polarization filter in each of the light source and the lens. The polarizer on the lens side is rotated to the polarizer on the light source side for optimal positioning.

Light source

non-polarizations

polarizer

direct polarizations

linear polarizations (specular reflections)

Removes linear polarized light with a polarizer rotated 90 degrees

lens and camera

diffused light to the camera

Only non-polarized (diffused light)

Example

The ring illumination is reflected in the FOV, but the reflection and gloss are removed by properly inserting the polarizing filter.

We also propose a light source together with the lens.



SV-PL Series

We also offer a range of different sizes and types with rotary stopper models.

P148

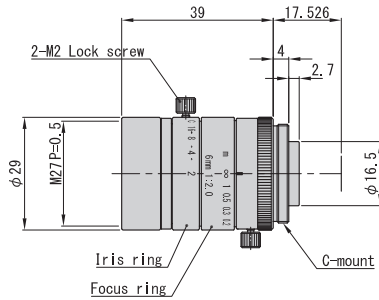
VS-VM Series

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"
 φ21 φ28.6 φ35 φ45 φ6 φ73 φ83 φ90



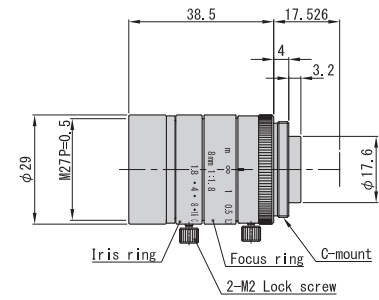
- 3.3μm resolution support
- f6mm - f50mm, 7 models
- F1.8 brightness & compact size
- Vibration resistant design

VS-0620VM



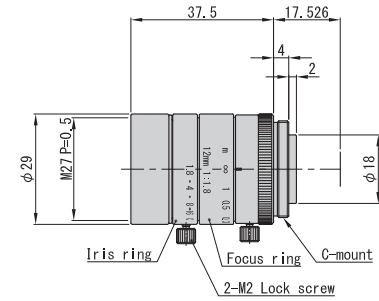
Focal Length (f)	6 mm
Maximum Aperture Ratio	1:2.0
Aperture	F2 ~ Close
Angle of View (1/1.8")	48.4° x 61.9°
M.O.D	100 mm
TV Distortion (1/1.8")	-1.42 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 27 P = 0.5
Weight (approx.)	62 g
Dimension	φ29(max.) x L = 39 mm

VS-0818VM



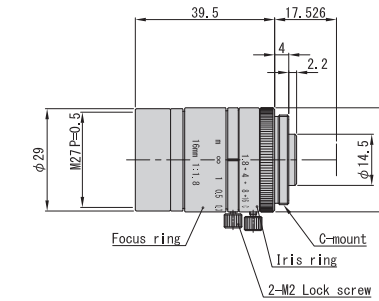
Focal Length (f)	8 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	37.2° x 48.2°
M.O.D	100 mm
TV Distortion (1/1.8")	-1.19 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 27 P = 0.5
Weight (approx.)	64 g
Dimension	φ29(max.) x L = 38.5 mm

VS-1218VM



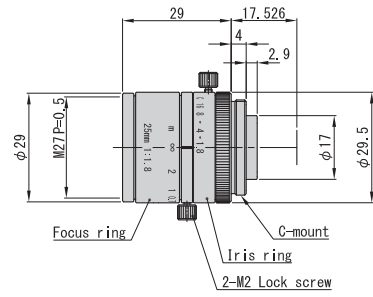
Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	25° x 32.6°
M.O.D	100 mm
TV Distortion (1/1.8")	-0.19 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 27 P = 0.5
Weight (approx.)	60 g
Dimension	φ29(max.) x L = 37.5 mm

VS-1618VM



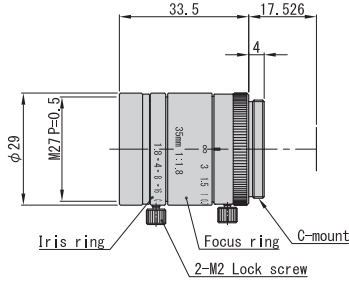
Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	18.8° x 24.6°
M.O.D	100 mm
TV Distortion (1/1.8")	-0.14 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 27 P = 0.5
Weight (approx.)	58 g
Dimension	φ29.5(max.) x L = 39.5 mm

VS-2518VM



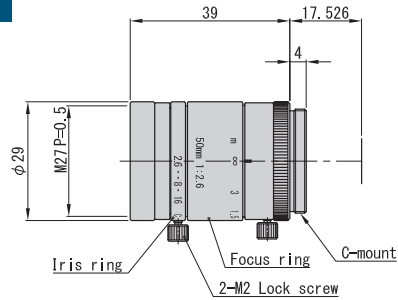
Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	12.1° x 15.9°
M.O.D	250 mm
TV Distortion (1/1.8")	-0.15 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 27 P = 0.5
Weight (approx.)	60 g
Dimension	φ29.5(max.) x L = 29 mm

VS-3518VM



Focal Length (f)	35 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (2/3")	11.7° x 13.8°
M.O.D	250 mm
TV Distortion (2/3")	-0.12 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	48 g
Dimension	φ29(max.) x L = 33.5 mm

VS-5026VM



Focal Length (f)	50 mm
Maximum Aperture Ratio	1:2.6
Aperture	F2.6 ~ Close
Angle of View (2/3")	8.1° x 9.6°
M.O.D	400 mm
TV Distortion (2/3")	0.01 %
Operation of Iris & Focus	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	54 g
Dimension	φ29(max.) x L = 39 mm

Fixed Focal Length Lenses

Macro Lenses

Telecentric Lenses

Large Format & Line Scan Lenses

Zoom Lenses

Microscope Unit

Accessories

Technical Resources

Table for WD, FOV and Extension Tube Length (Reference)

Extension Tube (mm)	Model	VS-0620VM		VS-0818VM		VS-1218VM		VS-1618VM		VS-2518VM		VS-3518VM		VS-5026VM	
		f6		f8		f12		f16		f25		f35		f50	
	Focal Length	∞ ~ 100		∞ ~ 100		∞ ~ 100		∞ ~ 100		∞ ~ 250		∞ ~ 250		∞ ~ 400	
0	WD	100		100		100		100		250		250		400	
	1/1.8"	98.2x129.1		75.0x98.6		50.9x67.0		36.0x47.3		55.7x73.2		38.6x50.7		39.4x51.8	
	1/2"	87.3x116.4		66.7x88.9		45.3x60.4		32.0x42.7		49.5x66.0		34.3x45.7		35.0x46.7	
	Mag.	0.055x		0.072x		0.106x		0.150x		0.097x		0.140x		0.137x	
0.5	WD	63.5	32.7	119.7	47.1	283.0	68.1	518.0	81.6	1257.0	205.6	2483.1	226.7	5034.2	375.0
	1/1.8"	66.7x87.7	39.7x52.2	88.5x116.4	40.6x53.4	131.7x173.2	36.7x48.3	174.2x229.0	30.0x39.4	270.0x355.0	46.6x61.2	385.7x507.1	35.1x46.1	540.0x710.0	36.7x48.3
	1/2"	59.3x79.0	35.3x47.1	78.7x104.9	36.1x48.1	117.1x156.1	32.7x43.5	154.8x206.5	26.7x35.6	240.0x320.0	41.4x55.2	342.9x457.1	31.2x41.6	480.0x640.0	32.7x43.5
	Mag.	0.081x	0.136x	0.061x	0.133x	0.041x	0.147x	0.031x	0.180x	0.020x	0.116x	0.014x	0.154x	0.010x	0.147x
1	WD					134.0	50.0	258.7	68.3	638.1	173.4	1199.3	207.9	2534.6	353.4
	1/1.8"					65.9x86.6	28.7x37.8	88.5x116.4	25.6x33.6	138.5x182.1	39.7x52.2	186.2x244.8	32.1x42.3	270.0x355.0	34.4x45.2
	1/2"					58.5x78.0	25.5x34.0	78.7x104.9	22.7x30.3	123.1x164.1	35.3x47.1	165.5x220.7	28.6x38.1	240.0x320.0	30.6x40.8
	Mag.					0.082x	0.188x	0.061x	0.211x	0.039x	0.136x	0.029x	0.168x	0.020x	0.157x
1.5	WD					84.3	38.3	168.5	58.6	417.3	149.5	809.1	190.9	1701.4	334.3
	1/1.8"					43.9x57.7	23.6x31.0	58.7x77.2	22.4x29.5	91.5x120.3	34.6x45.5	125.6x165.1	29.5x38.8	180.0x236.7	32.3x42.5
	1/2"					39.0x52.0	21.0x27.9	52.2x69.6	19.9x26.6	81.4x108.5	30.8x41.0	111.6x148.8	26.2 x 35.0	160.0x213.3	28.7x38.3
	Mag.					0.123x	0.229x	0.092x	0.241x	0.059x	0.156x	0.043x	0.183x	0.030x	0.167x
2	WD					59.5	30.2	124.8	50.9	308.2	131.8	600.1	177.4	1284.8	317.4
	1/1.8"					32.9x43.3	20.0x26.3	44.3x58.2	19.9x26.1	68.4x89.9	30.9x40.6	93.1x122.4	27.4x36.0	135.0x177.5	30.5x40.1
	1/2"					29.3x39.0	17.8x23.7	39.3x52.5	17.6x23.5	60.8x81.0	27.4x 36.6	82.8x110.3	24.4x32.5	120.0x160.0	27.1x36.2
	Mag.					0.164x	0.270x	0.122x	0.272x	0.079x	0.175x	0.058x	0.197x	0.040x	0.177x
5	WD									115.6	73.3	242.3	123.8	534.9	245.9
	1/1.8"									27.4x36.0	18.4x24.2	37.5x49.3	19.1x25.1	54.0x71.0	22.8x30.0
	1/2"									24.4x32.5	16.4x21.8	33.3x44.4	17.0x22.6	48.0x64.0	20.3x27.0
	Mag.									0.197x	0.293x	0.144x	0.283x	0.100x	0.237x
10	WD									51.1	38.5	121.7	82.4	284.9	183.3
	1/1.8"									13.7x18.0	11.0x14.5	18.8x24.7	12.6x16.6	27.0x35.5	16.0x21.1
	1/2"									12.2x16.2	9.8x13.1	16.7x22.2	11.2x15.0	24.0x32.0	14.2x19.0
	Mag.									0.394x	0.490x	0.288x	0.427x	0.200x	0.337x
15	WD									81.5	61.9	201.6	149.4		
	1/1.8"									12.5x16.4	9.5x12.4	18.0x23.7	12.4x16.2		
	1/2"									11.1x14.8	8.4x11.2	16.0x21.3	11.0x14.6		
	Mag.									0.432x	0.571x	0.300x	0.437x		
20	WD									61.3	49.6	159.9	128.1		
	1/1.8"									9.4x12.3	7.6x9.9	13.5x17.8	10.1x13.2		
	1/2"									8.3x11.1	6.7x9.0	12.0x16.0	8.9x11.9		
	Mag.									0.576x	0.715x	0.400x	0.537x		
25	WD									49.3	41.5	134.9	113.4		
	1/1.8"									7.5x9.9	6.3x8.3	10.8x14.2	8.5x11.1		
	1/2"									6.7x8.9	5.6x7.5	9.6x12.8	7.5x10.0		
	Mag.									0.719x	0.859x	0.500x	0.637x		
30	WD									41.3	35.7	118.3	102.8		
	1/1.8"									6.3x8.2	5.4x7.1	9.0x11.8	7.3x9.6		
	1/2"									5.6x7.4	4.8x6.4	8.0x10.7	6.5x8.7		
	Mag.									0.863x	1.003x	0.600x	0.737x		
35	WD									35.5	31.3	106.4	94.7		
	1/1.8"									5.4x7.1	4.7x6.2	7.7x10.1	6.5x8.5		
	1/2"									4.8x6.4	4.2x5.6	6.9x9.1	5.7x7.6		
	Mag.									1.007x	1.147x	0.700x	0.837x		
40	WD											97.5	88.3		
	1/1.8"											6.8x8.9	5.8x7.6		
	1/2"											6.0x8.0	5.1x6.8		
	Mag.											0.800x	0.937x		
45	WD											90.5	83.2		
	1/1.8"											6.0x7.9	5.2x6.8		
	1/2"											5.3x7.1	4.6x6.2		
	Mag.											0.900x	1.037x		
50	WD											85.0	78.9		
	1/1.8"											5.4x7.1	4.7x6.2		
	1/2"											4.8x6.4	4.2x5.6		
	Mag.											1.000x	1.137x		

Description of the table (mm)

Extension Tube (mm)	Model	VS-○○○○VM		
	Focal Length	(f)		
5	Focus	0.5m~∞		→ Object Distance(mm)
	W.D	103	130	→ The distance between the object and the front of the lens
	1/3"	14x19	19x25	→ FOV with a 1/3" sensor
	1/2"	18x24	24x32	→ FOV with a 1/2" sensor
	Mag.	0.25x	0.20x	→ Optical Magnification

Length of Extension Tube (t)

Lens for S-Mount Board Cameras

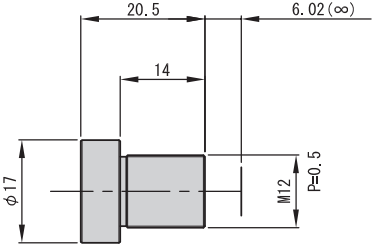
VS-B Series

- 1/4"1/3"1/2"1/1.8"2/3"1"1.1"4/3"
- φ21φ28.6φ35φ45φ62φ73φ83φ90



- Lens for S-Mount Board Cameras (M12)
- Compactly designed for use with board cameras

VS-B0624H



Focal Length	6 mm
Maximum Aperture Ratio	1:2.4
Angle of view (1/2")	44.8° x 58.7°
Back Focus	6.96 mm
Mechanical back Mount	6.02 mm
TV distortion (1/2")	M 12 P = 0.5
Sensor size (max.)	-2.71 %
Weight (approx.)	1/2"
Dimension	8 g
	φ17(max.) x L = 20.5 mm

Product Introduction



Super Compact Macro Lenses
VS-MC(Compact) Series
0.85x - 1.375x · 0.365x - 0.85x variable magnification models available.
Ideal to use in a space constrained environment.

P53



Ultra Compact Telecentric Lenses
VS-MTC Series
3.45μm resolution support. 3 models 0.69x/1.0x/2.0x. O/I 55mm design in combination with a compact camera enables to install a vision system into limited spaces.

P70

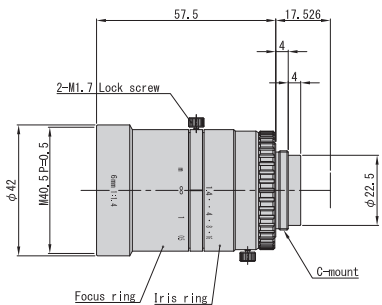
SV-H Series

1/4"	1/3"	1/2"	1/1.8"	2/3"	1"	1.1"	4/3"
φ21	φ28.6	φ35	φ45	φ62	φ73	φ83	φ90



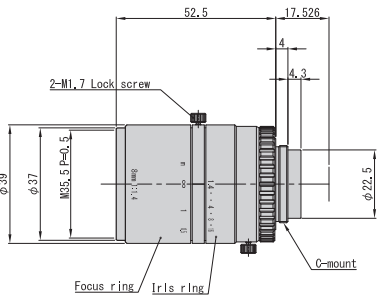
- f6mm - f100mm, 13 models
- 2/3 sensor support, F1.4 brightness (exc:SV-5026H)
- Iris and focus are adjustable
- All models filter-ready (VST filters are available)
- f75mm · f100mm models support 1" sensor

SV-0614H



Focal Length (f)	6 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	60.3° × 69.0°
M.O.D	100 mm
TV Distortion (2/3")	-0.06 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 40.5 P = 0.5
Weight (approx.)	142 g
Dimension	φ42(max.) x L = 57.5 mm

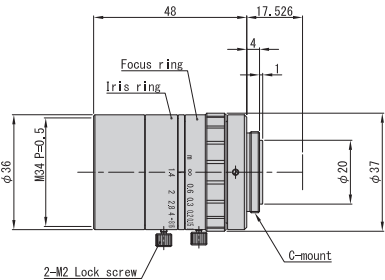
SV-0814H



Focal Length (f)	8 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	47.9° × 55.4°
M.O.D	100 mm
TV Distortion (2/3")	0.10 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 35.5 P = 0.5
Weight (approx.)	124 g
Dimension	φ39(max.) x L = 52.5 mm

SV-1214HF

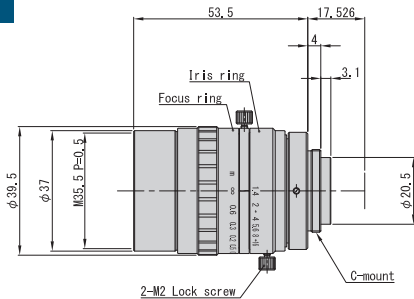
Floating System



Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	33.4° × 39.1°
M.O.D	100 mm
TV Distortion (2/3")	0.04 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 34 P = 0.5
Weight (approx.)	112 g
Dimension	φ37(max.) x L = 48 mm

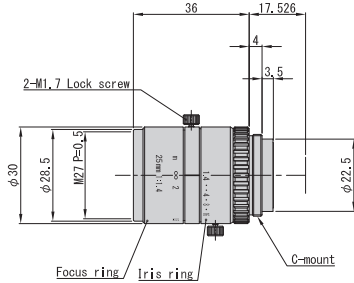
SV-1614HF

Floating System



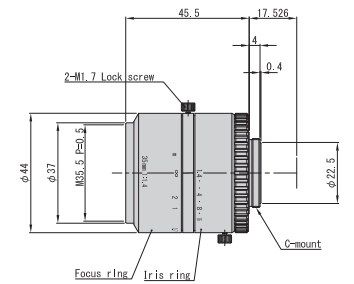
Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	24.5° × 28.9°
M.O.D	100 mm
TV Distortion (2/3")	-0.18 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 35.5 P = 0.5
Weight (approx.)	124 g
Dimension	φ39.5(max.) x L = 53.5 mm

SV-2514H



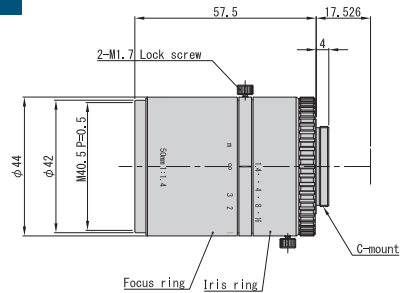
Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	16.2° × 19.1°
M.O.D	150 mm
TV Distortion (2/3")	-0.06 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	60 g
Dimension	φ30(max.) x L = 36 mm

SV-3514H



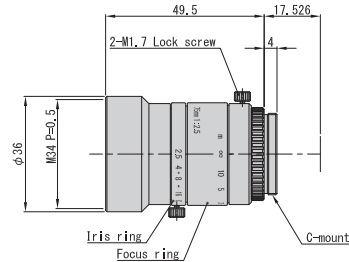
Focal Length (f)	35 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	11.6° × 13.7°
M.O.D	200 mm
TV Distortion (2/3")	-0.13 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 35.5 P = 0.5
Weight (approx.)	142 g
Dimension	φ44(max.) x L = 45.5 mm

SV-5014H



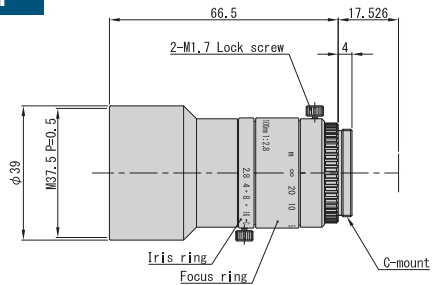
Focal Length (f)	50 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	8.1° × 9.6°
M.O.D	300 mm
TV Distortion (2/3")	0.02 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 40.5 P = 0.5
Weight (approx.)	165 g
Dimension	φ44(max.) x L = 57.5 mm

SV-7525H



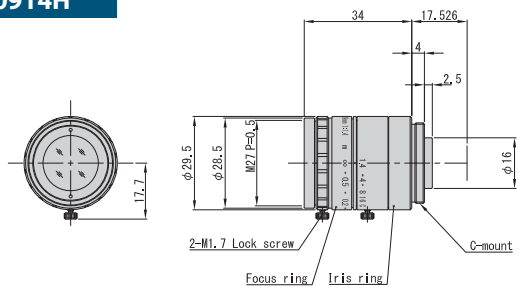
Focal Length (f)	75 mm
Maximum Aperture Ratio	1:2.5
Aperture	F2.5 ~ Close
Angle of View (1")	8.6° × 8.6°
M.O.D	1200 mm
TV Distortion (1")	0.05 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 34 P = 0.5
Weight (approx.)	84 g
Dimension	φ36(max.) x L = 49.5 mm

SV-10028H

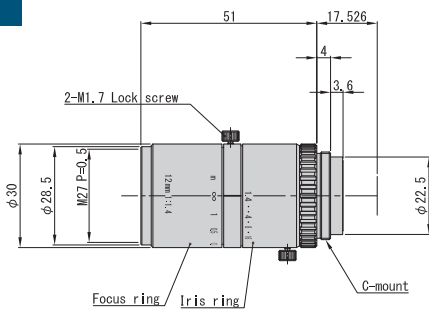


Focal Length (f)	100 mm
Maximum Aperture Ratio	1:2.8
Aperture	F2.8 ~ Close
Angle of View (1")	6.6° × 6.6°
M.O.D	2000 mm
TV Distortion (1")	0.08 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 37.5 P = 0.5
Weight (approx.)	104 g
Dimension	φ39(max.) x L = 66.5 mm

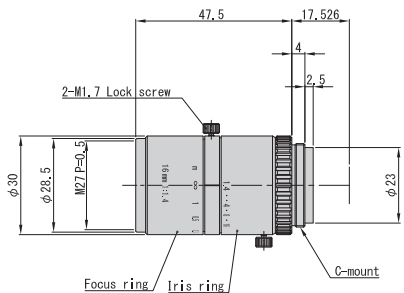
■ Megapixel Compact Model



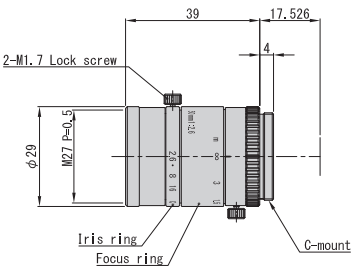
Focal Length (f)	9 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ Close
Angle of View (2/3")	43.4° x 51.0°
M.O.D	100 mm
TV Distortion (2/3")	-1.94 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	54 g
Dimension	φ29.5 (max.) x L = 34 mm



Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	32.4° x 37.9°
M.O.D	100 mm
TV Distortion (2/3")	0.06 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	80 g
Dimension	φ30(max.) x L = 51 mm



Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (2/3")	24.8° x 29.2°
M.O.D	100 mm
TV Distortion (2/3")	-0.16 %
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	76 g
Dimension	φ30 (max.) x L = 47.5 mm



Focal Length (f)	50 mm
Maximum Aperture Ratio	1:2.6
Aperture	F2.6 ~ Close
Angle of View (2/3")	8.1° x 9.6°
M.O.D	500 mm
TV Distortion (2/3")	0.01%
Operation	Manual (Lock screw M1.7)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	2/3"
Filter Thread	M 27 P = 0.5
Weight (approx.)	54 g
Dimension	φ29(max.) x L = 39 mm

■ Table for WD, FOV and Extension Tube Length (Reference)

Model	Focal Length Tube (mm)	SV-0614H	SV-0814H	SV-1214H	SV-1614H	SV-2514H	SV-3514H	SV-5014H	SV-5026H	SV-7525H	SV-10028H									
		f6	f8	f12	f16	f25	f35	f50	f50	f75	f100									
		∞ ~ 100	∞ ~ 100	∞ ~ 100	∞ ~ 100	∞ ~ 150	∞ ~ 200	∞ ~ 300	∞ ~ 500	∞ ~ 1200	∞ ~ 2000									
0	WD	100	100	100	100	150	200	300	500	1200	2000									
	2/3"	134.0x158.5	101.4x120.0	68.9x81.6	52.2x61.8	47.7x56.4	42.0x49.7	42.3x50.0	65.7x77.8	102.9x121.7	136.5x161.5									
	1/2"	90.6x120.8	68.6x91.4	46.6x62.1	35.3x47.1	32.2x43.0	28.4x37.9	28.6x38.1	44.4x59.3	69.6x92.8	92.3x123.1									
	Mag.	0.053x	0.070x	0.103x	0.136x	0.149x	0.169x	0.168x	0.108x	0.069x	0.052x									
0.5	WD	58.8	29.6	112.5	45.7	280.5	67.2	503.0	79.7	1232.0	133.8	2493.7	190.5							
	2/3"	86.6x102.4	52.6x62.2	112.7x133.3	53.4x63.2	173.2x204.9	49.3x58.3	229.0x271.0	42.5x50.3	355.0x420.0	42.0x49.7	507.1x600.0	38.8x45.9							
	1/2"	58.5x78.0	35.6x47.4	76.2x101.6	36.1x48.1	117.1x156.1	33.3x44.4	154.8x206.5	28.7x38.3	240.0x320.0	28.4x37.9	342.9x457.1	26.2x35.0							
	Mag.	0.082x	0.135x	0.063x	0.133x	0.041x	0.144x	0.031x	0.167x	0.020x	0.169x	0.014x	0.183x							
1	WD				132.4	48.7	241.7	64.5	607.1	118.2	1200.4	176.0	2502.7	277.0	2534.6	425.5				
	2/3"				87.7x103.7	38.6x45.7	114.5x135.5	35.9x42.4	177.5x210.0	37.6x44.4	244.8x289.7	35.9x42.4	355.0x420.0	37.8x44.7	355.0x420.0	55.5x65.6				
	1/2"				59.3x79.0	26.1x34.8	77.4x103.2	24.2x32.3	120.0x160.0	25.4x33.9	165.5x220.7	24.2x32.3	240.0x320.0	25.5x34.0	240.0x320.0	37.5x50.0				
	Mag.				0.081x	0.184x	0.062x	0.198x	0.040x	0.189x	0.020x	0.188x	0.020x	0.128x						
1.5	WD				81.4	36.5	154.7	53.4	398.8	105.5	807.4	164.3	1669.3	263.6	167.7	397.2	3855.4	950.1		
	2/3"				58.2x68.9	31.6x37.3	76.3x90.3	31.0x36.7	118.3x140.0	34.0x40.2	165.1x195.3	33.5x39.6	236.7x280.0	35.9x42.4	236.7x280.0	51.4x60.9	355.0x420.0	79.8x94.4		
	1/2"				39.3x52.5	21.3x28.4	51.6x68.8	21.0x27.9	80.0x106.7	23.0x30.6	111.6x148.8	22.6x30.2	160.0x213.3	24.2x32.3	160.0x213.3	34.8x46.4	240.0x320.0	53.9x71.9		
	Mag.				0.122x	0.225x	0.093x	0.229x	0.060x	0.209x	0.043x	0.212x	0.030x	0.198x	0.030x	0.138x	0.020x	0.089x		
2	WD						112.2	45.2	294.7	95.1	607.4	154.1	1252.7	251.4	126.1	372.8	2883.9	896.9	5021.5	1490.6
	2/3"				57.7x68.3	27.4x32.4	88.8x105.0	31.0x36.7	124.6x147.4	31.4x37.2	177.5x210.0	34.1x40.4	177.5x210.0	48.0x56.8	263.0x311.1	74.7x88.4	355.0x420.0	98.6x116.7		
	1/2"				39.0x52.0	18.5x24.7	60.0x80.0	21.0x27.9	84.2x112.3	21.2x28.3	120.0x160.0	23.1x30.8	120.0x160.0	32.4x43.2	177.8x237.0	50.5x67.4	240.0x320.0	66.7x88.9		
	Mag.				0.123x	0.259x	0.080x	0.229x	0.057x	0.226x	0.040x	0.208x	0.040x	0.148x	0.027x	0.095x	0.020x	0.072x		
5	WD						107.2	57.5	238.1	111.4	502.7	197.6	534.9	275.3	1226.6	663.1	2049.8	1081.8		
	2/3"						35.5x42.0	20.3x24.1	49.7x58.7	22.8x26.9	71.0x84.0	26.5x31.3	71.0x84.0	34.1x40.4	106.0x125.4	52.6x62.2	139.2x164.7	68.9x81.6		
	1/2"						24.0x32.0	13.8x18.3	33.6x44.8	15.4x20.5	48.0x64.0	17.9x23.9	48.0x64.0	23.1x30.8	71.6x95.5	35.6x47.4	94.1x125.5	46.6x62.1		
	Mag.						0.200x	0.349x	0.143x	0.312x	0.100x	0.268x	0.100x	0.208x	0.067x	0.135x	0.051x	0.103x		
10	WD						44.7	31.5	115.7	76.1	252.7	146.9	284.9	197.3	671.5	479.0	1091.1	767.4		
	2/3"						17.8x21.0	12.9x15.3	24.8x29.4	15.6x18.5	35.5x42.0	19.3x22.8	35.5x42.0	23.1x27.3	53.4x63.2	35.1x41.6	69.8x82.4	46.1x54.5		
	1/2"						12.0x16.0	8.7x11.7	16.8x22.4	10.5x14.1	24.0x32.0	13.0x17.4	24.0x32.0	15.6x20.8	36.1x48.1	23.8x31.7	47.1x62.7	31.2x41.6		
	Mag.						0.400x	0.549x	0.286x	0.455x	0.200x	0.368x	0.200x	0.308x	0.133x	0.202x	0.102x	0.154x		
15	WD						75.1	57.8	169.3	117.9	201.6	157.5	482.7	386.6	771.6	609.5				
	2/3"						16.6x19.6	11.9x14.1	23.7x28.0	17.4x20.6	35.5x42.0	26.4x31.2	46.4x54.9	34.6x41.0						
	1/2"						11.2x15.0	8.0x10.7	16.0x21.3	10.3x13.7	16.0x21.3	11.8x15.7	24.0x32.0	17.8x23.8	31.4x41.8	23.4x31.2				
	Mag.						0.428x	0.597x	0.300x	0.468x	0.300x	0.408x	0.200x	0.269x	0.153x	0.205x				
20	WD						54.6	46.5	127.7	99.1	159.9	133.4	388.7	331.7	609.5	513.0				
	2/3"						12.4x14.7	9.6x11.4	17.8x21.0	12.5x14.8	17.8x21.0	14.0x16.5	26.6x31.5	21.2x25.1	34.6x41.0	27.6x32.7				
	1/2"						8.4x11.2	6.5x8.6	12.0x16.0	8.5x11.3	12.0x16.0	9.4x12.6	18.0x24.0	13.4x19.1	23.4x31.2	18.7x24.9				
	Mag.						0.571x	0.740x	0.400x	0.568x	0.400x	0.508x	0.267x	0.335x	0.205x	0.257x				
25	WD						42.3	38.8	102.7	85.9	135.0	117.2	332.4	294.4	514.5	450.0				
	2/3"						9.9x11.8	8.0x9.5	14.2x16.8	10.6x12.6	14.2x16.8	11.7x13.8	21.3x25.1	17.7x20.9	27.7x32.8	23.1x27.3				
	1/2"						6.7x9.0	5.4x7.2	9.6x12.8	7.2x9.6	9.6x12.8	7.9x10.5	14.4x19.2	11.9x15.9	18.8x25.0	15.6x20.8				
	Mag.						0.714x	0.883x	0.500x	0.668x	0.500x	0.608x	0.334x	0.402x	0.256x	0.308x				
30	WD						34.1	33.3	86.0	76.2	118.3	105.6	295.3	267.8	451.0	404.9				
	2/3"						8.3x9.8	6.9x8.2	11.8x14.0	9.2x10.9	11.8x14.0	10.0x11.9	17.8x21.0	15.1x17.9	23.1x27.4	19.8x23.4				
	1/2"						5.6x7.5	4.7x6.2	8.0x10.7	6.3x8.3	8.0x10.7	6.8x9.0	12.0x16.0	10.2x13.6	15.6x20.8	13.4x17.8				
	Mag.						0.857x	1.026x	0.600x	0.768x	0.600x	0.708x	0.400x	0.469x	0.307x	0.359x				
35	WD						74.1	68.7	186.4	96.8	268.4	247.8	405.6	371.0						
	2/3"						10.1x12.0	8.2x9.7	10.1x12.0	8.8x10.4	15.2x18.0	13.2x15.7	19.8x23.5	17.3x20.5						
	1/2"						6.9x9.1	5.5x7.4	6.9x9.1	5.9x7.9	10.3x13.7	9.0x11.9	13.4x17.9	11.7x15.6						
	Mag.						0.700x	0.868x	0.700x	0.808x	0.467x	0.536x	0.358x	0.410x						
40	WD						65.2	62.7	97.5	90.0	248.3	232.5	371.6	344.6						
	2/3"						8.9x10.5	7.3x8.7	8.9x10.5	7.8x9.3	13.3x15.7	11.8x14.0	17.4x20.5	15.4x18.2						
	1/2"						6.0x8.0	5.0x6.6	6.0x8.0	5.3x7.0	9.0x12.0	8.0x10.6	11.7x15.6	10.4x13.9						
	Mag.						0.800x	0.968x	0.800x	0.908x	0.534x	0.602x	0.409x	0.461x						
45	WD						58.2	57.9	90.5	84.6	232.9	220.0	345.1	323.5						
	2/3"						7.9x9.3	6.6x7.9	7.9x9.3	7.0x8.3	11.8x14.0	10.6x12.6	15.4x18.3	13.9x16.4						
	1/2"						5.3x7.1	4.5x6.0	5.3x7.1	4.8x6.3	8.0x10.7	7.2x9.6	10.4x13.9	9.4x12.5						
	Mag.						0.900x	1.068x	0.900x	0.900x	0.600x	0.669x	0.460x	0.512x						
50	WD						52.7	53.9	85.0	80.1	220.3	209.8	323.9	306.2						
	2/3"						7.1x8.4	6.1x7.2	7.1x8.4	6.4x7.6	10.6x12.6	9.6x11.4	13.9x16.4	12.6x14.9						
	1/2"						4.8x6.4	4.1x5.5	4.8x6.4	4.3x5.8	7.2x9.6	6.5x8.7	9.4x12.5	8.5x11.4						
	Mag.						1.000x	1.168x	1.000x	1.108x	0.667x	0.736x	0.511x	0.563x						

Description of the table (mm)

Extension Tube (mm)	Model	SV-○○○○H	
	Focal Length Focus	(f)	()
5	W.D	103	130
	1/3"	14x19	19x25
	1/2"	18x24	24x32
	Mag.	0.25x	0.20x

Length of Extension Tube (t)

1" Support, High Resolution Fixed Focal Length Lenses

VS-H1 Series

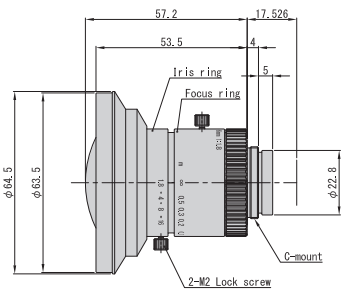
- 1/4"1/3"1/2"1/1.8"2/3"1"1.1"4/3"
- φ21φ28.6φ35φ45φ62φ73φ83φ90



- 1" sensor support
- f6mm - f50mm, 7 models
- F1.4 brightness for high speed CMOS sensor
- Low distortion & high contrast

VS-0618H1

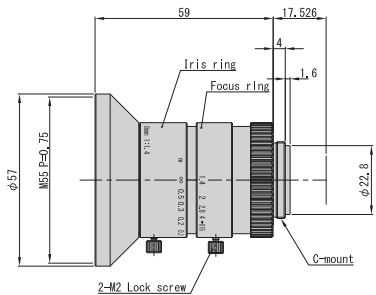
Floating System



Focal Length (f)	6 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ 16
Angle of View (1")	87.3° × 87.3°
M.O.D	100 mm
TV Distortion (1")	-0.61 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Weight (approx.)	205 g
Dimension	φ64.5 (max.) × L = 57.2 mm

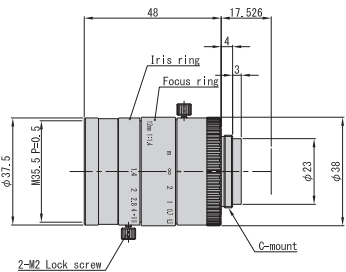
VS-0814H1

Floating System



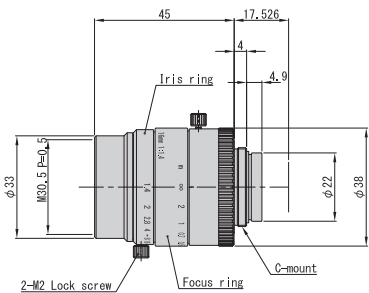
Focal Length (f)	8 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1")	71.8° × 71.8°
M.O.D	100 mm
TV Distortion (1")	-0.54 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 55 P = 0.75
Weight (approx.)	175 g
Dimension	φ57 (max.) × L = 59 mm

VS-1214H1



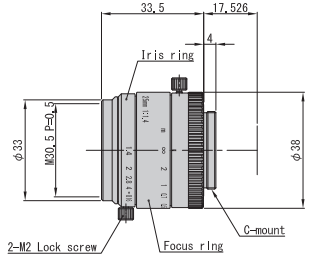
Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1")	50.8° × 50.8°
M.O.D	300 mm
TV Distortion (1")	-0.32 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 35.5 P = 0.5
Weight (approx.)	130 g
Dimension	φ38 (max.) × L = 48 mm

VS-1614H1N



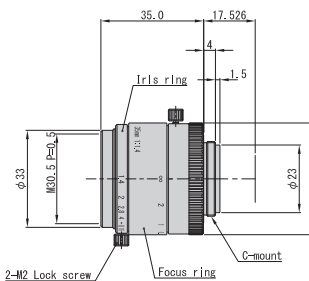
Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1")	38.6° × 38.6°
M.O.D	300 mm
TV Distortion (1")	-0.65 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	120 g
Dimension	φ38 (max.) × L = 45 mm

VS-2514H1



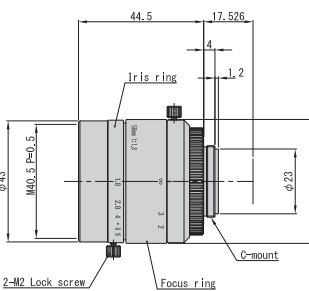
Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1")	25.1° × 25.1°
M.O.D	300 mm
TV Distortion (1")	-0.46 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	84 g
Dimension	φ38 (max.) × L = 33.5 mm

VS-3514H1



Focal Length (f)	35 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1")	18.3° × 18.3°
M.O.D	300 mm
TV Distortion (1")	-0.31 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	92 g
Dimension	φ38 (max.) × L = 35 mm

VS-5018H1



Focal Length (f)	50 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ 16
Angle of View (1")	12.8° × 12.8°
M.O.D	500 mm
TV Distortion (1")	-0.01 %
Operation	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 40.5 P = 0.5
Weight (approx.)	128 g
Dimension	φ44 (max.) × L = 44.5 mm

Product Introduction



1" Support Ruggedized Distortionless Macro Lenses

VS-MCH1 Series

Torque body for easy mounting control

P28



1" Support, SWIR Fixed Focal Length Lenses

VS-H1-SWIR Series

High transmittance from 700nm - 2000nm

P30

Fixed Focal Length Lenses

Macro Lenses

Telecentric Lenses

Large Format & Line Scan Lenses

Zoom Lenses

Microscope Unit

Accessories

Technical Resources

Table for WD, FOV and Extension Tube Length (Reference)

Extension Tube (mm)	Model Focal Length	VS-1214H1		VS-1614H1N		VS-2514H1		VS-3514H1		VS-5018H1	
		f12 ∞ ~ 300		f16 ∞ ~ 300		f25 ∞ ~ 300		f35 ∞ ~ 300		f50 ∞ ~ 500	
0	WD	300		300		300		300		500	
	1"	296.3x296.3		212.5x212.5		137.3x137.3		95.4x95.4		111.5x111.5	
	2/3"	186.8x221.1		134.0x158.5		86.6x102.4		60.2x71.2		70.3x83.2	
	Mag.	0.038x		0.053x		0.082x		0.118x		0.101x	
0.5	WD	277.3		134.0		521.3		187.6		1262.1	
	1"	274.6x274.6		140.8x140.8		363.2x363.2		134.0x134.0		563.0x563.0	
	2/3"	173.2x204.9		88.8x105.0		229.0x271.0		84.5x100.0		355.0x420.0	
	Mag.	0.041x		0.080x		0.031x		0.084x		0.020x	
1	WD	128.5		82.9		261.2		136.3		642.9	
	1"	135.7x135.7		93.1x93.1		184.6x184.6		98.8x98.8		288.7x288.7	
	2/3"	85.5x101.2		58.7x69.4		116.4x137.7		62.3x73.7		182.1x215.4	
	Mag.	0.083x		0.121x		0.061x		0.114x		0.039x	
1.5	WD	80.5		57.7		170.7		105.6		421.9	
	1"	90.8x90.8		69.5x69.5		122.4x122.4		77.7x77.7		190.8x190.8	
	2/3"	57.3x67.7		43.8x51.9		77.2x91.3		49.0x57.9		120.3x142.4	
	Mag.	0.124x		0.162x		0.092x		0.145x		0.059x	
2	WD	55.9		42.4		126.9		86.2		312.9	
	1"	67.8x67.8		55.2x55.2		92.3x92.3		64.3x64.3		142.5x142.5	
	2/3"	42.8x50.6		34.8x41.2		58.2x68.9		40.6x48.0		89.9x106.3	
	Mag.	0.166x		0.204x		0.122x		0.175x		0.079x	
5	WD										
	1"										
	2/3"										
	Mag.										
10	WD										
	1"										
	2/3"										
	Mag.										
15	WD										
	1"										
	2/3"										
	Mag.										
20	WD										
	1"										
	2/3"										
	Mag.										
25	WD										
	1"										
	2/3"										
	Mag.										
30	WD										
	1"										
	2/3"										
	Mag.										
35	WD										
	1"										
	2/3"										
	Mag.										
40	WD										
	1"										
	2/3"										
	Mag.										
45	WD										
	1"										
	2/3"										
	Mag.										
50	WD										
	1"										
	2/3"										
	Mag.										

Description of the table (mm)

Extension Tube (mm)	Model Focal Length	VS-○○○○H1		
		(f)	()	
5	Focus	0.5m ~ ∞		Object Distance(mm)
	W.D	103	130	The distance between the object and the front of the lens
	1/3"	14x19	19x25	FOV with a 1/3" sensor
	1/2"	18x24	24x32	FOV with a 1/2" sensor
	Mag.	0.25x	0.20x	Optical Magnification

Length of Extension Tube (t)

1.1" & 4K Support, IR-Corrected Fixed Focal Length Lenses

VS-H-IRC/11 Series

1/4"	1/3"	1/2"	1/1.8"	2/3"	1"	1.1"	4/3"
φ21	φ28.6	φ35	φ45	φ62	φ73	φ83	φ90



- 1.1", 12MP and 3.45μm resolution support
- 4K Resolution
- f12mm/f16mm/f25mm, 3 models
- IR-Corrected, minimize focus shift from visible to NIR

Visible Lens

With Blue Lighting With IR Lighting

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Herikerbergweg 292-342,
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TEL: +31-20-305-1310

VS-H-IRC/11 SERIES

With Blue Lighting With IR Lighting

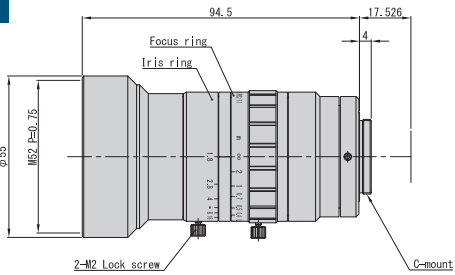
VS Technology Corporation
Head Office
1-9-19 Azabudai, Minato-ku, Tokyo 106-0041, Japan
TEL: +81-3-3560-6668 FAX: +81-3-3560-6669
https://vst.co.jp/ info@vst.co.jp

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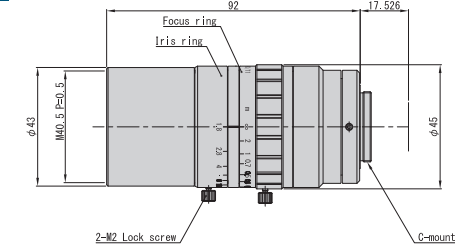
Minimize focus shift

VS-H1218-IRC/11



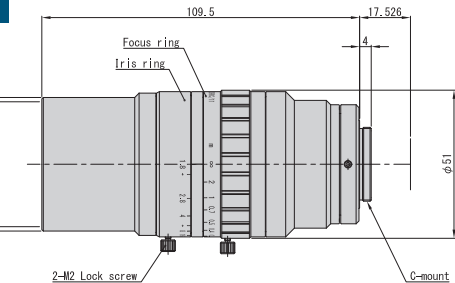
Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1.1")	46.3° x 61.4°
M.O.D	300 mm
TV Distortion (1.1")	-1.37 %
Operation	Manual(Lock screw M2)
Wavelength	Visible ~ 850nm
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1.1"
Filter Thread	M 52 P = 0.75
Weight (approx.)	340 g
Dimension	φ55(max.) x L = 94.5 mm

VS-H1618-IRC/11



Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1.1")	36.0° x 48.7°
M.O.D	300 mm
TV Distortion (1.1")	-1.95 %
Operation	Manual(Lock screw M2)
Wavelength	Visible ~ 850nm
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1.1"
Filter Thread	M 40.5 P = 0.5
Weight (approx.)	290 g
Dimension	φ45(max.) x L = 92 mm

VS-H2518-IRC/11



Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1.1")	23.3° x 31.7°
M.O.D	300 mm
TV Distortion (1.1")	-1.00 %
Operation	Manual(Lock screw M2)
Wavelength	Visible ~ 850nm
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1.1"
Filter Thread	M 43 P = 0.75
Weight (approx.)	390 g
Dimension	φ51(max.) x L = 109.5 mm

1.1" Support, High Resolution Fixed Focal Length Lenses

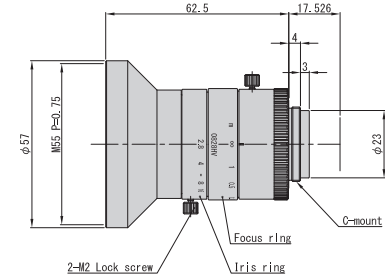
VS-HV Series

- 1/4"1/3"1/2"1/1.8"2/3"1"1.1"4/3"
- φ21φ28.6φ35φ45φ62φ73φ83φ90



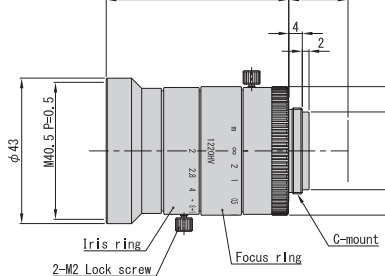
- 1.1" and 3.45μm resolution support
- f8mm/f12mm/f16mm, 3 models
- Versatile design for wide range of applications

VS-0828HV



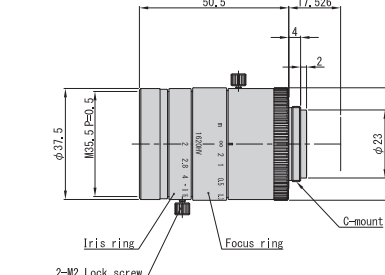
Focal Length (f)	8 mm
Maximum Aperture Ratio	1:2.8
Aperture	F2.8 ~ 16
Angle of View (1.1")	67.1° x 85.7°
M.O.D	100 mm
TV Distortion (1.1")	-1.20%
Operation of Iris & Focus	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1.1"
Filter Thread	M 55 P = 0.75
Weight (approx.)	200g
Dimension	φ57 (max.) x L = 62.5 mm

VS-1220HV



Focal Length (f)	12 mm
Maximum Aperture Ratio	1:2.0
Aperture	F2.0 ~ 16
Angle of View (1.1")	46.7° x 61.9°
M.O.D	100 mm
TV Distortion (1.1")	-1.29%
Operation of Iris & Focus	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1.1"
Filter Thread	M 40.5 P = 0.5
Weight (approx.)	155g
Dimension	φ43 (max.) x L = 54 mm

VS-1620HV



Focal Length (f)	16 mm
Maximum Aperture Ratio	1:2.0
Aperture	F2.0 ~ 16
Angle of View (1.1")	35.4° x 47.6°
M.O.D	100 mm
TV Distortion (1.1")	-1.31%
Operation of Iris & Focus	Manual (Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1.1"
Filter Thread	M 35.5 P = 0.5
Weight (approx.)	144g
Dimension	φ38 (max.) x L = 50.5 mm

Table for WD, FOV and Extension Tube Length (Reference)

Extension Tube (mm)	Model Focal Length	VS-0828HV f8		VS-1220HV f12		VS-1620HV f16	
		Focus ∞ ~ 100		Focus ∞ ~ 100		Focus ∞ ~ 100	
0	WD	100		100		100	
	1.1"	145.1x198.6		96.3x131.8		73.0x100.0	
	2/3"	100.0x118.3		66.4x78.5		50.4x59.6	
	Mag.	0.071x		0.107x		0.141x	
0.5	WD	119.2	46.6	294.0	68.5	533.9	79.5
	1.1"	168.9x231.1	78.0x106.8	257.5x352.5	70.1x95.9	343.3x470.0	60.2x82.5
	2/3"	116.4x137.7	53.8x63.6	177.5x210.0	48.3x57.1	236.7x280.0	41.5x49.1
	Mag.	0.061x	0.132x	0.040x	0.147x	0.030x	0.171x
1	WD	52.2	27.1	137.2	50.1	258.3	65.0
	1.1"	85.1x116.5	53.6x73.4	127.2x174.1	54.8x75.0	171.7x235.0	51.2x70.1
	2/3"	58.7x69.4	37.0x43.8	87.7x103.7	37.8x44.7	118.3x140.0	35.3x41.8
	Mag.	0.121x	0.192x	0.081x	0.188x	0.060x	0.201x
1.5	WD			86.6	38.5	164.5	54.0
	1.1"			85.1x116.5	45.2x61.8	113.2x154.9	44.4x60.8
	2/3"			58.7x69.4	31.1x36.8	78.0x92.3	30.6x36.2
	Mag.			0.121x	0.228x	0.091x	0.232x
2	WD					119.4	45.9
	1.1"					85.1x116.5	39.3x53.8
	2/3"					58.7x69.4	27.1x32.1
	Mag.					0.121x	0.262x
5	WD						
	1.1"						
	2/3"						
	Mag.						
10	WD						
	1.1"						
	2/3"						
	Mag.						
15	WD						
	1.1"						
	2/3"						
	Mag.						
20	WD						
	1.1"						
	2/3"						
	Mag.						
25	WD						
	1.1"						
	2/3"						
	Mag.						
30	WD						
	1.1"						
	2/3"						
	Mag.						
35	WD						
	1.1"						
	2/3"						
	Mag.						
40	WD						
	1.1"						
	2/3"						
	Mag.						
45	WD						
	1.1"						
	2/3"						
	Mag.						
50	WD						
	1.1"						
	2/3"						
	Mag.						

Description of the table (mm)

Extension Tube (mm)	Model Focal Length	SV-○○○○○V		
		(f Focus 0.5m ~ ∞)		
5	WD	103	130	→ Object Distance(mm)
	1/3"	14x19	19x25	→ The distance between the object and the front of the lens
	1/2"	18x24	24x32	→ FOV with a 1/3" sensor
	Mag.	0.25x	0.20x	→ FOV with a 1/2" sensor
				→ Optical Magnification

Length of Extension Tube (t)

VS-085 Series

1/4"	1/3"	1/2"	1/1.8"	2/3"	1"	1.1"	4/3"
φ21	φ28.6	φ35	φ45	φ62	φ73	φ83	φ90



- 4/3" support
- Design for high speed camera
- Floating system ensure high performance at any magnification
- Low distortion and high contrast
- M42-Mount (Available in C-Mount/BTO)

VS-25085: Open Aperture

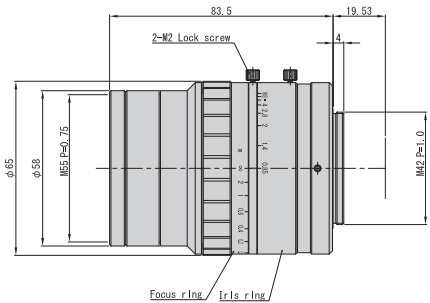
VS Technology

Standard Fixed Focal Length Lenses: Open Aperture

VS Technology

VS-25085/M42

Floating System

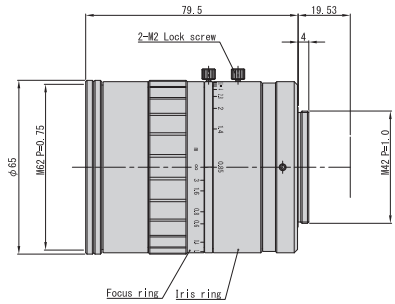


Focal Length (f)	25 mm
Maximum Aperture Ratio	1:0.85
Aperture	F0.85 ~ 16
Angle of View (4/3")	30.3° x 40.0°
M.O.D	170 mm
TV Distortion (4/3")	-1.21 %
Operation	Manual(Lock screw M2)
Wavelength	Visible
Mount	M 42 P = 1.0
Flange Back	19.53 mm
Sensor Size (max.)	4/3"
Filter Thread	M 55 P = 0.75
Weight (approx.)	570 g
Dimension	φ65(max.) x L = 83.5 mm

※C-mount's maximum aperture ratio is 1:090

VS-50085/M42

Floating System



Focal Length (f)	50 mm
Maximum Aperture Ratio	1:0.85
Aperture	F0.85 ~ 16
Angle of View (4/3")	15.9° x 21.0°
M.O.D	240 mm
TV Distortion (4/3")	-0.30 %
Operation	Manual(Lock screw M2)
Wavelength	Visible
Mount	M 42 P = 1.0
Flange Back	19.53 mm
Sensor Size (max.)	4/3"
Filter Thread	M 62 P = 0.75
Weight (approx.)	610 g
Dimension	φ65(max.) x L = 79.5 mm

※C-mount's maximum aperture ratio is 1:090

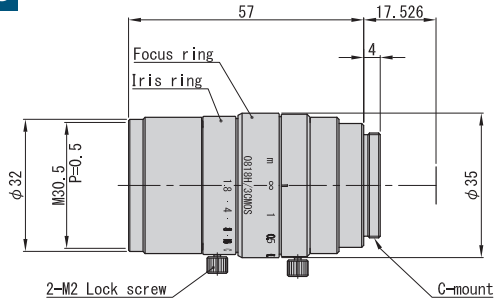
VS-H/3CMOS Series

1/4"	1/3"	1/2"	1/1.8"	2/3"	1"	1.1"	4/3"
φ21	φ28.6	φ35	φ45	φ62	φ73	φ83	φ90



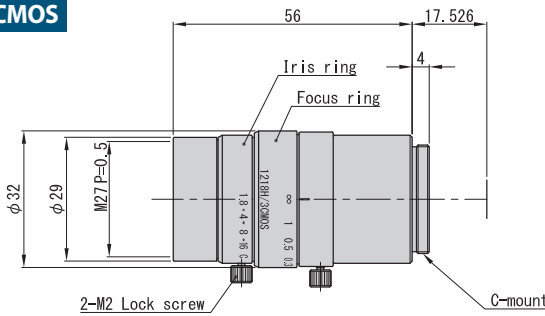
- 1/1.8" support
- f8mm/12mm/16mm/25mm, 4 models
- Design for 3CMOS cameras

VS-0818H/3CMOS



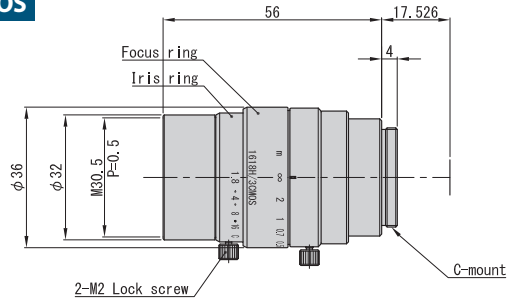
Focal Length (f)	8 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	36.6° x 47.3°
M.O.D	100 mm
TV Distortion (1/1.8")	-0.81 %
Operation	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	110 g
Dimension	φ35(max.) x L = 57 mm

VS-1218H/3CMOS



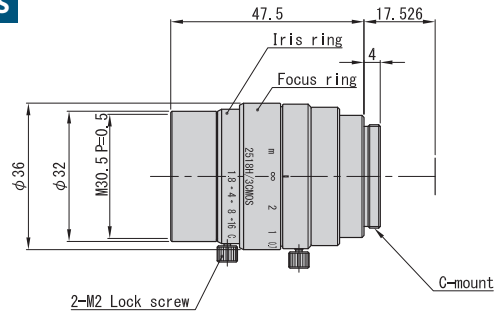
Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	25.4° x 33.2°
M.O.D	150 mm
TV Distortion (1/1.8")	-0.80 %
Operation	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 27 P = 0.5
Weight (approx.)	94 g
Dimension	φ32(max.) x L = 56 mm

VS-1618H/3CMOS



Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	19.1° x 25.1°
M.O.D	150 mm
TV Distortion (1/1.8")	-0.44 %
Operation	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	114 g
Dimension	φ36(max.) x L = 56 mm

VS-2518H/3CMOS



Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ Close
Angle of View (1/1.8")	12.2° x 16.0°
M.O.D	200 mm
TV Distortion (1/1.8")	-0.16 %
Operation	Manual(Lock screw M2)
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1/1.8"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	100 g
Dimension	φ36(max.) x L = 47.5 mm

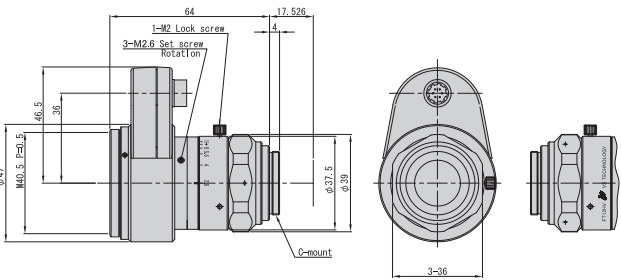
VS-FT12HV

- 1/4"1/3"1/2"1/1.8"2/3"1"1.1"4/3"
- φ21φ28.6φ35φ45φ62φ73φ83φ90



- 1.1" and 3.45μm resolution support
- Large angle of view with 1.1" sensor
- Able to adjust focus from 150mm to infinity

VS-FT12HV

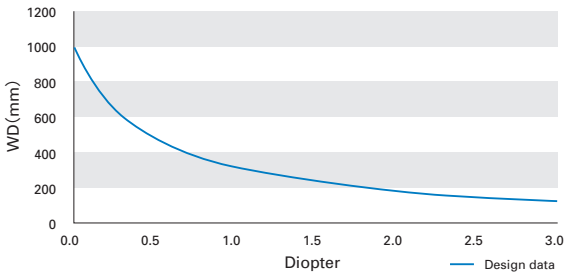


Focus tunable lens	Model	EL-16-40-TC			
	Optical power	-2 dpt	0 dpt	+0.5 dpt	+2.5 dpt
Focal Length (f)	12 mm				
Maximum Aperture Ratio	1: 2.8				
Aperture	F2.8 ~ 16				
WD	Over Infinity	1000 mm	490 mm	150 mm	
Angle of View (1.1")	-	47.8 x 66.6°	47.6 x 66.2°	46.4 x 64.5°	
TV Distortion (1.1")	-	-7.1 %	-7.0 %	-6.5 %	
Relative illuminance (Y=8.75)	-	64 %	64 %	64 %	
Operation (Iris)	Manual (Lock screw M2)				
Wavelength	Visible				
Mount	C-Mount				
Flange Back	17.526 mm				
Sensor Size (max.)	1.1"				
Filter Thread	M 40.5 P = 0.5				
Weight (approx.)	210g				
Dimension	φ47 (max.) x L = 64 mm				
Repeatability in focal power mode	±0.05dpt (small steps) ±0.1dpt (large steps)				
Response (typical at 30°C, 0 to +/- 250mA step)	5ms				
Setting time (typical at 30°C, 0 to +/- 250mA step)	25ms				
Lifecycles (10%-90% sinusoidal)	>1,000,000,000				

Electrical Specifications	
Nominal control current with Lens Driver	- 250 mA to 250 mA
Absolute max. control current	- 500 mA to 500 mA
Power consumption	0W to 0.7W (nominal), 0W to 2.8W (absolute max.)
Voltage for digital circuitry Vcc	3.3V
Serial communication	RS232

Pinning Hirose connector HR10G-7R-6PB (73)		
Position	Function	Sensor pins
1	Max. control current +	-
2	Max. control current -	-
3	Gnd	1 - 4
4	Power	8
5	I²C SCL	6
6	I²C SDA	5

WD / Diopter



Options

Model No.	Details
CAB-6-100	1m cable Optotune
EL-E-4i	Lens driver (USB type) Optotune
TR-CL180	Lens driver (RS232·Ethernet type) Gardasoft

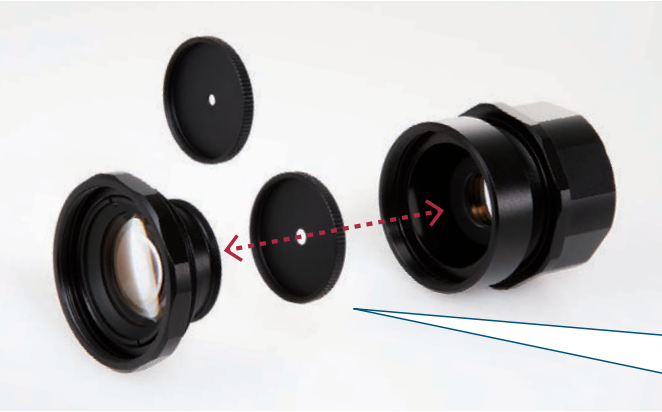
VS-MCH1 Series

1/4" 1/3" 1/2" 1/1.8" 2/3" 1" 1.1" 4/3"
φ21 φ28.6 φ35 φ45 φ62 φ73 φ83 φ90

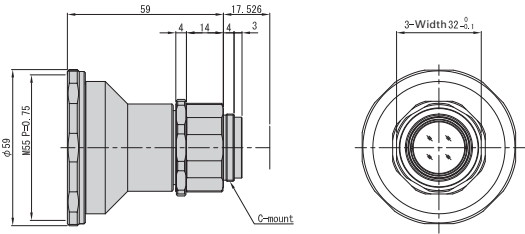


- 1" support
- f8mm - f50mm, 6 models
- Changeable Iris plate system
- Threaded iris plate system to lock the iris in place and avoid dust generation from vibration
- Torque body for easy mounting control

Threaded iris plate system to lock the iris in place (Open / F5.6 / F8)



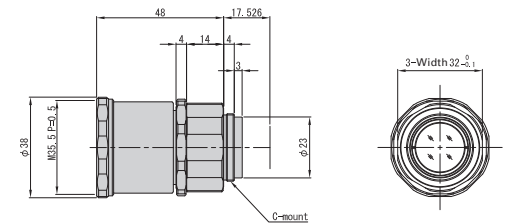
VS-MC08H1



Focal Length (f)	8 mm
Maximum Aperture Ratio	1:1.4
Angle of View (1°)	72.7° x 72.7°
M.O.D	100 mm
TV Distortion (1°)	-0.35 %
Operation	Manual
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 55 P = 0.75
Weight (approx.)	94 g
Dimension	φ59(max.) x L = 59 mm

※Changeable Iris plate system from Fno 5.6/8

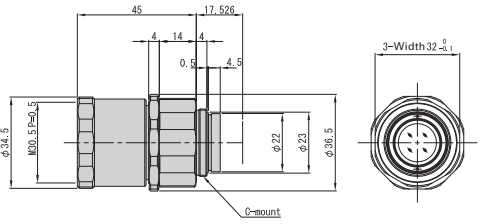
VS-MC12H1



Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.4
Angle of View (1°)	50.8° x 50.8°
M.O.D	300 mm
TV Distortion (1°)	-0.32 %
Operation	Manual
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 35.5 P = 0.5
Weight (approx.)	106 g
Dimension	φ38(max.) x L = 48 mm

※Changeable Iris plate system from Fno 5.6/8

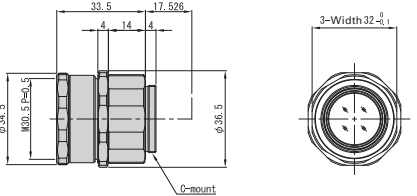
VS-MC16H1



Focal Length (f)	16 mm
Maximum Aperture Ratio	1:1.4
Angle of View (1°)	38.6° x 38.6°
M.O.D	300 mm
TV Distortion (1°)	-0.65 %
Operation	Manual
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	100 g
Dimension	φ36.5(max.) x L = 45 mm

※Changeable Iris plate system from Fno 5.6/8

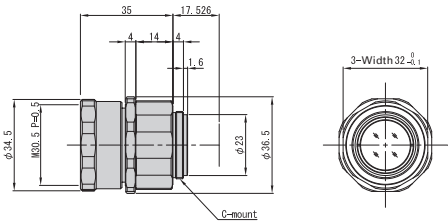
VS-MC25H1



Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.4
Angle of View (1°)	25.1° x 25.1°
M.O.D	300 mm
TV Distortion (1°)	-0.46 %
Operation	Manual
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	66 g
Dimension	φ36.5(max.) x L = 33.5 mm

※Changeable Iris plate system from Fno 5.6/8

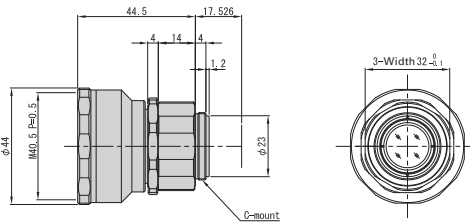
VS-MC35H1



Focal Length (f)	35 mm
Maximum Aperture Ratio	1:1.4
Angle of View (1°)	18.3° x 18.3°
M.O.D	300 mm
TV Distortion (1°)	-0.31 %
Operation	Manual
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 30.5 P = 0.5
Weight (approx.)	72 g
Dimension	φ36.5(max.) x L = 35 mm

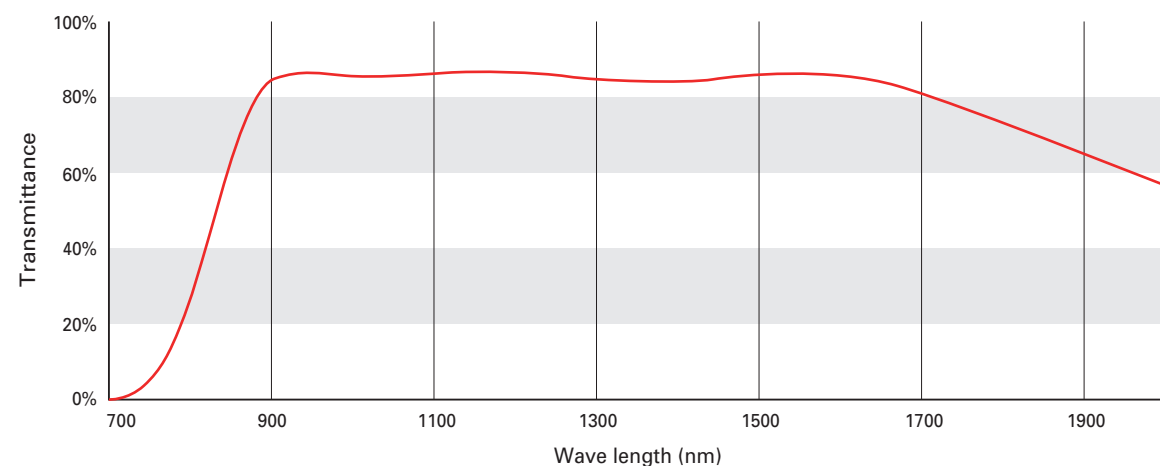
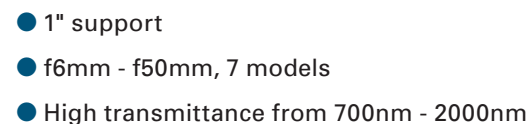
※Changeable Iris plate system from Fno 5.6/8

VS-MC50H1



Focal Length (f)	50 mm
Maximum Aperture Ratio	1:1.8
Angle of View (1°)	12.8° x 12.8°
M.O.D	500 mm
TV Distortion (1°)	-0.01 %
Operation	Manual
Wavelength	Visible
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M 40.5 P = 0.5
Weight (approx.)	94 g
Dimension	φ44(max.) x L = 44.5 mm

※Changeable Iris plate system from Fno 5.6/8



Technical drawing of the camera lens assembly showing dimensions and labels:

- Overall length: 57.2
- Distance from front flange to C-mount: 17.528
- Distance from front flange to focus ring: 53.5
- Distance from front flange to iris ring: 4
- Distance from front flange to 2-M2 lock screw: 5
- Front flange diameter: $\phi 64.5$
- Iris ring diameter: $\phi 63.5$
- Focus ring diameter: $\phi 22.8$
- Labels: Iris ring, Focus ring, C-mount, 2-M2 Lock screw

Focal Length (f)	6 mm
Maximum Aperture Ratio	1 : 1.8
Aperture	F1.8 ~ 16
Angle of View (1°)	87.3° x 87.3°
M.O.D	100 mm
TV Distortion (1°)	-0.61 %
Operation	Manual(Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Weight (approx.)	205 g
Dimension	ø64.5 (max.) x L = 57.2 mm

Technical drawing of the lens assembly showing dimensions and labels. The drawing includes the following dimensions and labels:

- Overall length: 59
- Distance from front flange to C-mount: 17.526
- Front flange diameter: $\phi 37$
- Front flange thickness: M56 P=0.15
- Distance from front flange to iris ring: 1.6
- Iris ring diameter: $\phi 35$
- Distance from iris ring to focus ring: 1.6
- Focus ring diameter: $\phi 35$
- Distance from focus ring to C-mount: 1.6
- C-mount diameter: $\phi 27.8$
- Labels: Iris ring, Focus ring, C-mount

Focal Length (f)	8 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1°)	71.8° x 71.8°
M.O.D	100 mm
TV Distortion (1°)	-0.54 %
Operation	Manual (Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M55 P = 0.75
Weight (approx.)	175 g
Dimension	ø57 (max.) x L = 59 mm

Technical drawing of the camera module assembly showing dimensions and components. The drawing includes the following labels and dimensions:

- Dimensions:**
 - Overall width: 48
 - Distance from left edge to center of lens: 17.526
 - Distance from center of lens to right edge: 4
 - Distance from center of lens to C-mount: 3
 - Overall height: 6.23
 - Distance from bottom edge to center of lens: 105.5 (±0.5)
- Components:**
 - Focus ring
 - Iris ring
 - 2-M2 Lock screw
 - C-mount

Focal Length (f)	12 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1°)	50.8° x 50.8°
M.O.D	300 mm
TV Distortion (1°)	-0.32 %
Operation	Manual (Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M35.5 P = 0.5
Weight (approx.)	130 g
Dimension	ø38 (max.) x L = 48 mm

[illegible]

Focal Length (f)	16 mm
Maximum Aperture Ratio	1 : 1.4
Aperture	F1.4 ~ 16
Angle of View (1°)	38.6° x 38.6°
M.O.D	300 mm
TV Distortion (1°)	-0.65 %
Operation	Manual (Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M30.5 P = 0.5
Weight (approx.)	120 g
Dimension	φ38 (max.) x L = 45 mm

[illegible]

Focal Length (f)	25 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1°)	25.1° x 25.1°
M.O.D	300 mm
TV Distortion (1°)	-0.46 %
Operation	Manual (Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M30.5 P = 0.5
Weight (approx.)	84 g
Dimension	ø38(max.) x L = 33.5 mm

[illegible]

Focal Length (f)	35 mm
Maximum Aperture Ratio	1:1.4
Aperture	F1.4 ~ 16
Angle of View (1°)	18.3° x 18.3°
M.O.D	300 mm
TV Distortion (1°)	-0.31 %
Operation	Manual (Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M30.5 P = 0.5
Weight (approx.)	92 g
Dimension	φ38 (max.) x L = 35 mm

Technical drawing of the camera module assembly showing dimensions and components. The drawing includes the following dimensions and labels:

- Overall width: 44.5
- Distance from center to C-mount: 17.526
- Distance from center to Iris ring: 4
- Distance from center to Focus ring: 1.2
- Overall height: 6.43
- Distance from center to 2-M2 Lock screw: 14.05 ± 0.5
- Distance from center to C-mount: 6.23
- Labels: Focus ring, Iris ring, 2-M2 Lock screw, C-mount.

Focal Length (f)	50 mm
Maximum Aperture Ratio	1:1.8
Aperture	F1.8 ~ 16
Angle of View (1°)	12.8° x 12.8°
M.O.D	500 mm
TV Distortion (1°)	-0.01 %
Operation	Manual (Lock screw M2)
Wavelength	Short Wave IR
Mount	C-Mount
Flange Back	17.526 mm
Sensor Size (max.)	1"
Filter Thread	M40.5 P = 0.5
Weight (approx.)	128 g
Dimension	φ44(max.) x L = 44.5 mm