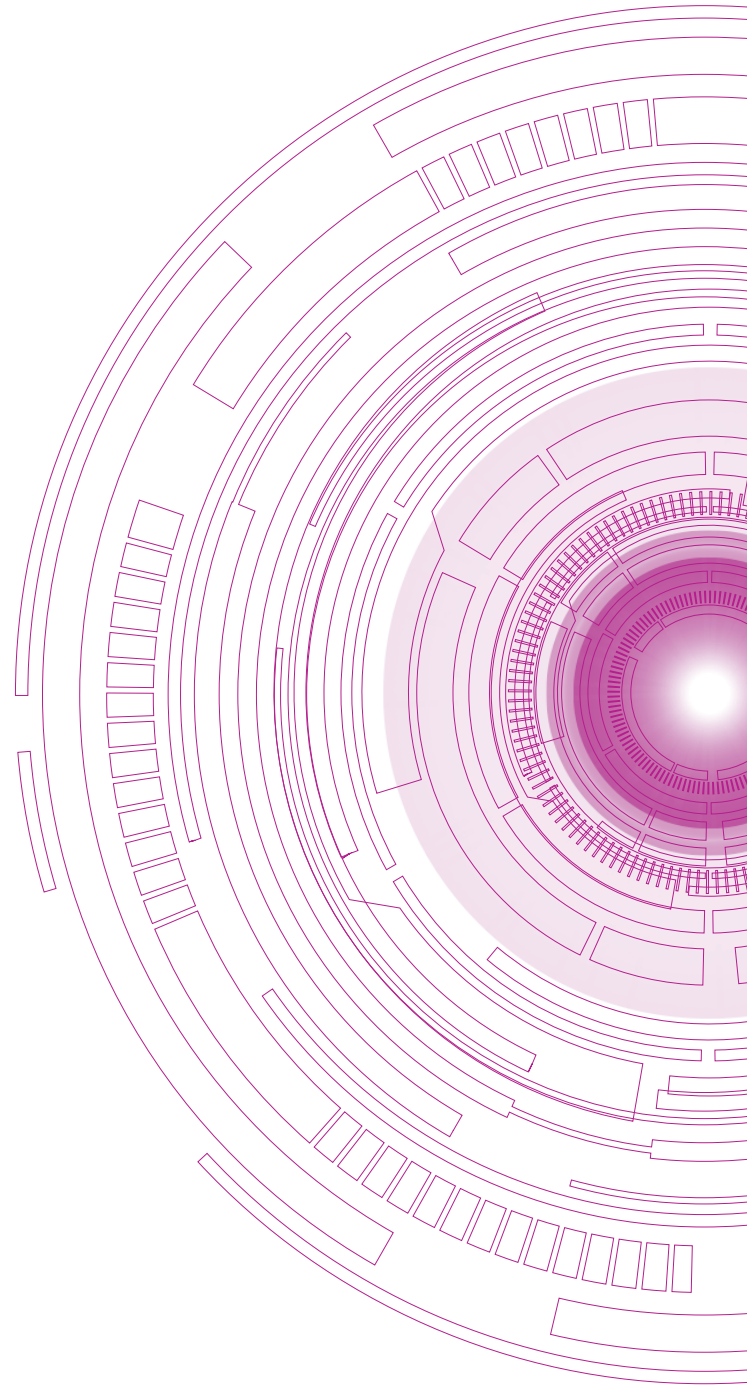


Industrial Imaging Lens

PRODUCT GUIDE





BRAND PROMISE

As a Catalyst of Optics, Computar brings together diverse ideas and cutting-edge technology from multiple fields, developing innovations beyond any country's or industry's limitations.

Brand Story

As a Pioneer of Optics, Computar has set the standard. We excel by uniting our comprehensive production abilities, knowledge, interdisciplinary perspectives, and diverse specialties. We do this by discovering our evolving global society's constant and unexplored demands.

Our corporate origins date back one hundred years, with the last forty in optics. We have developed a sustained ability to understand imaging applications and to engineer unique and innovative products. This ingenuity is the backbone of Computar's growth.

Computar has set the pace for developing intelligent, value-added, high-performance industrial lenses with a solid foundation based on Japanese engineering. We have established enduring business partnerships and customer relationships in optics globally.

Computar's pioneering innovations result from the advancement of optics in analog and digital, security, and machine vision. Our hands-on knowledge, multiple collaborations, insight, and creativity make us who we are today.

Our optical science expertise in the advanced fields of 5G, IoT, and robotics enables us to respond to our customers' evolving demands globally. In addition, we actively promote technical liaisons beyond the borders of individual industries to deliver innovations based on a core of optical knowledge.

LensConnect Series

- New motorized lenses, enable power supply & control through USB (Available for I2C ver.)
- Floating focus design achieves ultra-high resolution from near to far
- Stepper motors realizes precise focus control and high repeatability
- Easy-to-install by free control software
- 1" 20MP, Suitable for large format sensor (IMX183)



MPX Series

- Anti-vibration and shock resistance design to adapt to harsh inspection environments
- High-resolution lens 2 μ m or less pixel size supported
- Floating mechanism enables high performance from close-up to long distance
- Precise focus adjustment with a focus rotation angle 3 times greater than usual lenses
- Adoption of click-type iris mechanism
- Wide lineup of f=8mm/12mm/16mm/25mm/35mm/50mm/75mm



MPT Series

- Dedicated design for 1.2"~1.4" new large format sensors (IMX530/IMX540/IMX492)
- Floating design achieves ultra-high resolution from near to far
- World's smallest size for large format megapixel sensors for industrial use
- Highly versatile C mount
- Wide range of lineup, 12mm/16mm/25mm/35mm/50mm



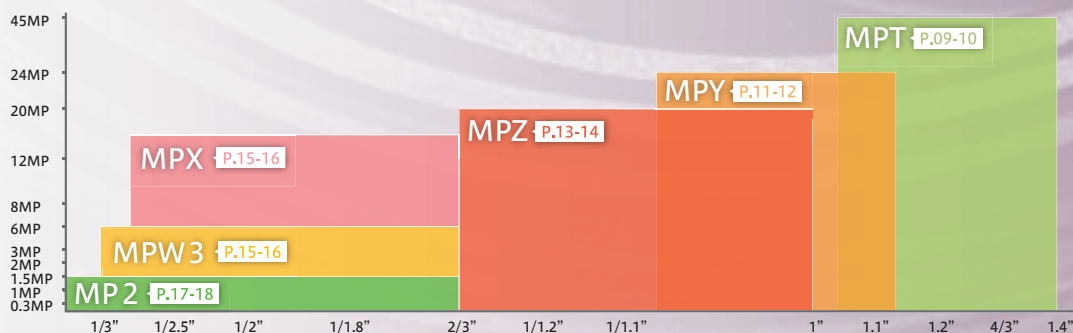
ViSWIR Series

- Dedicated design for next generation Visible-SWIR image sensor (IMX990/IMX991)
- Hyper Apochromat design, Fully corrected focus-shift between 400-1700nm
- Floating-focus mechanism realizes axial chromatic aberration and chromatic aberration of magnification at all WD and wavelength
- High transmittance at whole wavelength of 400nm-1700nm by adopting hyper wideband AR coat
- Minimize light scattering and clear images by adopting NIR absorbing coat



INDEX

NEW	03-04	REMOTE CONTROL MACHINE VISION LENS Lens Connect VL-MPZ Series
NEW	05-06	REMOTE CONTROL MACHINE VISION LENS Lens Connect DL-MPY Series
NEW	07-08	REMOTE CONTROL MACHINE VISION LENS Lens Connect Vari focal Series
NEW	09-10	1.4" 45MP MEGAPIXEL FIXED FOCAL LENS (MPT Series)
	11-12	1.1" 24MP MEGAPIXEL FIXED FOCAL LENS (MPY Series)
	13-14	1" 20MP MEGAPIXEL FIXED FOCAL LENS (MPZ Series)
NEW	15-16	2/3" 16MP MEGAPIXEL FIXED FOCAL LENS (MPX Series)
	17-18	2/3" 6MP MEGAPIXEL FIXED FOCAL LENS (MPW3 Series)
	19-20	2/3" 1.5MP MEGAPIXEL FIXED FOCAL LENS (MP2 Series)
NEW	21-22	viswIR Hyper APO Series
NEW	23-24	viswIR Lite Series
	25	MACRO ZOOM LENS
	26	TELECENTRIC MACRO LENS
	27	1.1" 1" MEGAPIXEL TELECENTRIC LENS (TEC-V Series)
	28-30	2/3" MEGAPIXEL TELECENTRIC LENS (TEC-M Series)
NEW	31-32	1.1" IR CORRECTIVE 12 MEGAPIXEL LENS for ITS (MPYIR Series)
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	50	CBC WORLDWIDE NETWORK



1" 20 MEGA PIXEL FIXED FOCAL REMOTE CONTROL LENS

NEW Lens  **connect**

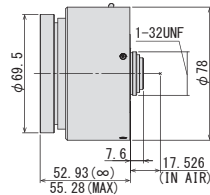
VL-MPZ Series

1" 20 MEGA PIXEL FIXED FOCAL REMOTE CONTROL LENS

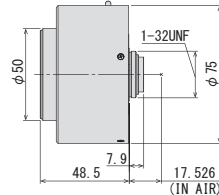


Model No.	Format	Focal Length	F No.	Working Distance	Weight
VL0826U-MPZ	1"	8mm	F2.6	0.1m-Inf.	334g
VL1226U-MPZ		12mm	F2.6	0.1m-Inf.	273g
VL1624U-MPZ		16mm	F2.4	0.1m-Inf.	280g
VL2520U-MPZ		25mm	F2.0	0.15m-Inf.	257g
VL3522U-MPZ		35mm	F2.2	0.2m-Inf.	313g
VL5024U-MPZ		50mm	F2.4	0.2m-Inf.	326g
VL7531U-MPZ		75mm	F3.1	0.25m-Inf.	415g

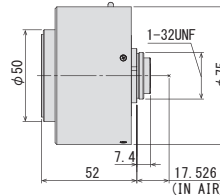
VL0826U-MPZ



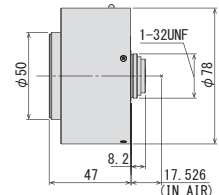
VL1226U-MPZ



VL1624U-MPZ



VL2520U-MPZ



Focal Length	8mm					12mm					16mm					25mm									
Max. Aperture Ratio	1:2.6					1:2.6					1:2.4					1:2.0									
Max. Image Format	12.8mm × 9.6mm (φ 16mm)					12.8mm × 9.6mm (φ 16mm)					12.8mm × 9.6mm (φ 16mm)					12.8mm × 9.6mm (φ 16mm)									
Operation Range	Iris	F2.6 - F16.0					F2.6 - F16.0					F2.4 - F16.0					F2.0 - F16.0								
	Focus	0.1m - Inf.					0.1m - Inf.					0.1m - Inf.					0.15m - Inf.								
Control	Iris	Motorized					Motorized					Motorized					Motorized								
	Focus	Motorized					Motorized					Motorized					Motorized								
Angle of View	D	88.8°		68.6°		58.2°		67.4°		49.8°		41.5°		53.2°		38.1°		31.6°		35.5°		24.9°		20.5°	
	H	76.9°		57.1°		47.8°		56.7°		40.7°		33.7°		43.8°		30.9°		25.5°		28.8°		20.0°		16.4°	
	V	61.5°		44.2°		36.6°		44.1°		31.0°		25.5°		33.6°		23.4°		19.2°		21.8°		15.1°		12.4°	
Operating Temperature	-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C									

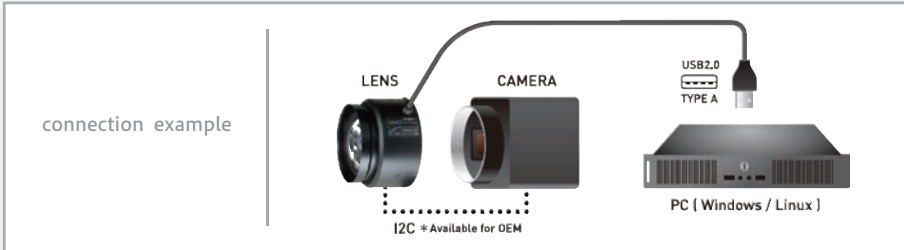
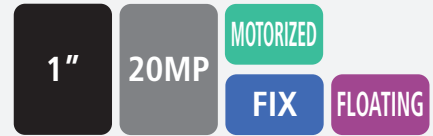
Optical Distortion	1"	-0.8%	2/3"	-2.1%	1/1.8"	-1.9%	1"	0.0%	2/3"	-1.1%	1/1.8"	-1.0%	1"	0.0%	2/3"	-0.4%	1/1.8"	-0.4%	1"	0.0%	2/3"	0.0%	1/1.8"	0.0%
Back Focal Length	10.6mm (In Air)						10.6mm (In Air)						10.7mm (In Air)						9.1mm (In Air)					
Flange Back Length	17.526mm (In Air)						17.526mm (In Air)						17.526mm (In Air)						17.526mm (In Air)					
Mount	C-Mount						C-Mount						C-Mount						C-Mount					
Filter Size	M82 P=0.75mm (With ZM0810)*						M46 P=0.75mm						M43 P=0.75mm						M46 P=0.75mm					
Weight	334g						273g						280g						257g					

Control Interface	USB2.0						USB2.0						USB2.0						USB2.0					
Power mode	Bus powerd (500mA)						Bus powerd (500mA)						Bus powerd (500mA)						Bus powerd (500mA)					
Connector	USB TypeA						USB TypeA						USB TypeA						USB TypeA					

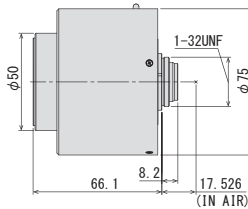
*When using filters, lens requires VM0810 (sold separately).
For more detail please refer to P.36

1" 20 MEGA PIXEL FIXED FOCAL REMOTE CONTROL LENS

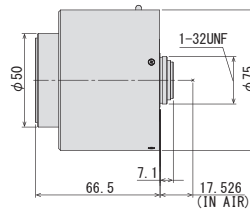
- Motorized FA lens that can be operated easily with a single USB cable
- Focus and Iris can be controlled via USB
- Ultra-high resolution lens, suitable for 1" 20 megapixel sensor
- Much lower distortion design for all models is beneficial for a variety of machine vision applications
- Has the newest optical design, which has a much higher relative illuminance compared to conventional models, despite having a large format 1" sensor (Ø16mm)



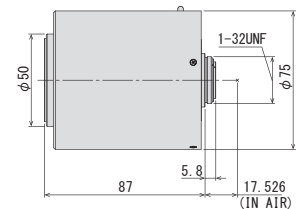
VL3522U-MPZ



VL5024U-MPZ



VL7531U-MPZ



Focal Length	35mm						50mm						75mm						
Max. Aperture Ratio	1:2.2						1:2.4						1:3.1						
Max. Image Format	12.8mm × 9.6mm (φ 16mm)						12.8mm × 9.6mm (φ 16mm)						12.8mm × 9.6mm (φ 16mm)						
Operation Range	Iris	F2.2 - F16.0					F2.4 - F16.0						F3.1 - F16.0						
	Focus	0.2m - Inf.					0.2m - Inf.						0.25m - Inf.						
Control	Iris	Motorized					Motorized						Motorized						
	Focus	Motorized					Motorized						Motorized						
Angle of View	D	1"		2/3"		1/1.8"		1"		2/3"		1/1.8"		1"		2/3"		1/1.8"	
		25.8°		17.9°		14.7°		18.2°		12.6°		10.3°		12.2°		8.4°		6.9°	
		20.8°		14.4°		11.8°		14.6°		10.1°		8.3°		9.8°		6.7°		5.5°	
	H	15.7°		10.8°		8.9°		11.0°		7.6°		6.2°		7.3°		5.0°		4.1°	
Operating Temperature	-10° C ~ +50° C						-10° C ~ +50° C						-10° C ~ +50° C						

Optical Distortion	1"			2/3"			1/1.8"			1"			2/3"			1/1.8"			1"			2/3"			1/1.8"		
Back Focal Length	9.7mm (In Air)									11.1mm (In Air)									12.0mm (In Air)								
Flange Back Length	17.526mm (In Air)									17.526mm (In Air)									17.526mm (In Air)								
Mount	C-Mount									C-Mount									C-Mount								
Filter Size	M43 P=0.75mm									M43 P=0.75mm									M43 P=0.75mm								
Weight	313g									326g									415g								

Control Interface	USB2.0			USB2.0			USB2.0		
Power mode	Bus powerd (500mA)			Bus powerd (500mA)			Bus powerd (500mA)		
Connector	USB TypeA			USB TypeA			USB TypeA		

1/1.1" 12 MEGA PIXEL FIXED FOCAL REMOTE CONTROL LENS

NEW Lens  **connect**

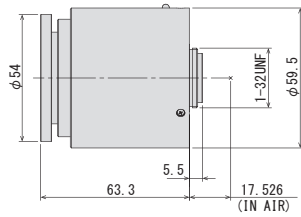
DL-MPY Series

1/1.1" 12 MEGA PIXEL FIXED FOCAL REMOTE CONTROL LENS

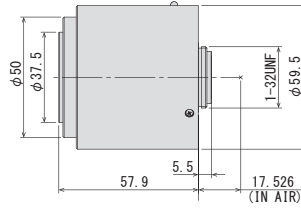


Model No.	Format	Focal Length	F No.	Working Distance	Weight
DL0828UC-MPY	1/1.1"	8mm	F2.8	0.1m-Inf.	178g
DL1224UC-MPY		12mm	F2.4	0.1m-Inf.	163g
DL1623UC-MPY		16mm	F2.3	0.11m-Inf.	173g
DL2523UC-MPY		25mm	F2.3	0.12m-Inf.	166g
DL3525UC-MPY		35mm	F2.5	0.16m-Inf.	160g
DL5028UC-MPY		50mm	F2.8	0.2m-Inf.	173g

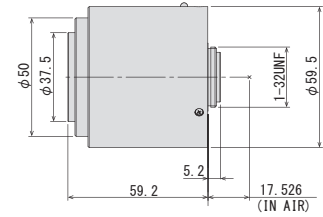
DL0828UC-MPY



DL1224UC-MPY



DL1623UC-MPY



Focal Length	8mm						12mm						16mm						
Max. Image Format	φ 14.4mm						φ 14.4mm						φ 14.4mm						
Operation Range	Iris	F2.8 - F16.0					F2.4 - F16.0						F2.3 - F16.0						
	Focus	0.1m - Inf.					0.1m - Inf.						0.11m - Inf.						
Control	Iris	Motorized					Motorized						Motorized						
	Focus	Motorized					Motorized						Motorized						
Angle of View	D	80.4°		68.3°		58.1°		60.2°		49.7°		41.5°		47.0°		38.2°		31.6°	
	H	1/1.1"	69.4°	2/3"	57.0°	1/1.8"	47.8°	1/1.1"	50.5°	2/3"	40.6°	1/1.8"	33.6°	1/1.1"	38.9°	2/3"	31.0°	1/1.8"	25.5°
	V		53.8°		44.1°		36.6°		38.1°		31.0°		25.5°		29.0°		23.4°		19.2°
Operating Temperature	-20°C ~ +60°C						-20°C ~ +60°C						-20°C ~ +60°C						

Optical Distortion	1/1.1"	0.0%	2/3"	-1.6%	1/1.8"	-1.7%	1/1.1"	-0.1%	2/3"	-1.0%	1/1.8"	-1.0%	1/1.1"	0.0%	2/3"	-0.7%	1/1.8"	-0.7%
Back Focal Length	13.0mm (In Air)						14.6mm (In Air)						14.3mm (In Air)					
Flange Back Length	17.526mm (In Air)						17.526mm (In Air)						17.526mm (In Air)					
Mount	C-Mount						C-Mount						C-Mount					
Filter Size	M52 P=0.75mm						M35.5 P=0.5mm						M35.5 P=0.5mm					
Weight	178g						163g						173g					

Control Interface	USB2.0						USB2.0						USB2.0					
Power mode	Bus powerd (500mA)						Bus powerd (500mA)						Bus powerd (500mA)					
Connector	USB TypeA						USB TypeA						USB TypeA					

1/1.1" 12 MEGAPIXEL FIXED FOCAL REMOTE CONTROL LENS

- Motorized FA lens that can be operated easily with a single USB cable
- Focus can be controlled via USB
- Fast speed focus control
- Ultra-high-resolution lens, suitable for 1/1.1" 12 megapixel sensor
- All models are designed for minimum distortion, which benefits various machine vision applications

1/1.1"

12MP

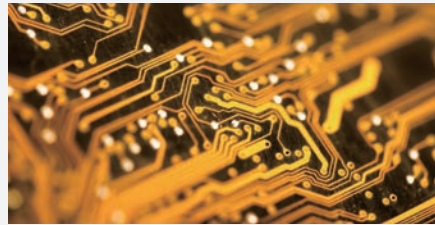
MOTORIZED

FIX

FLOATING



Remote adjustment in out-of-reach places

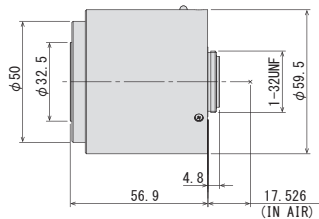


Make precise adjustments to lenses after installation

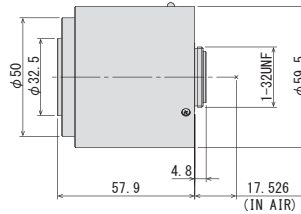


Easily change the focus point for workpieces at different heights

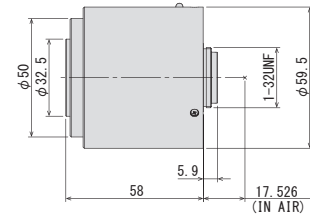
DL2523UC-MPY



DL3525UC-MPY



DL5028UC-MPY



Focal Length	25mm					35mm					50mm								
Max. Image Format	φ 14.4mm					φ 14.4mm					φ 14.4mm								
Operation Range	Iris	F2.3 - F16.0				Iris	F2.5 - F16.0				Iris	F2.8 - F16.0							
	Focus	0.12m - Inf.				Focus	0.16m - Inf.				Focus	0.2m - Inf.							
Control	Iris	Motorized				Iris	Motorized				Iris	Motorized							
	Focus	Motorized				Focus	Motorized				Focus	Motorized							
Angle of View	D	31.0°		24.8°		20.4°		22.5°		17.9°		14.7°		16.3°		12.9°		10.6°	
	H	1/1.1"	25.3°	2/3"	20.0°	1/1.8"	16.4°	1/1.1"	18.2°	2/3"	14.3°	1/1.8"	11.7°	1/1.1"	13.2°	2/3"	10.4°	1/1.8"	8.5°
	V	18.7°		15.1°		12.3°		13.4°		10.8°		8.8°		9.7°		7.8°		6.4°	
Operating Temperature	-20°C ~ +60°C					-20°C ~ +60°C					-20°C ~ +60°C								

Optical Distortion	1/1.1"	0.1%	2/3"	-0.1%	1/1.8"	-0.1%	1/1.1"	0.0%	2/3"	0.0%	1/1.8"	0.0%	1/1.1"	0.0%	2/3"	0.0%	1/1.8"	0.0%
Back Focal Length	14.3mm (In Air)					14.3mm (In Air)					14.2mm (In Air)							
Flange Back Length	17.526mm (In Air)					17.526mm (In Air)					17.526mm (In Air)							
Mount	C-Mount					C-Mount					C-Mount							
Filter Size	M30.5 P=0.5mm					M30.5 P=0.5mm					M30.5 P=0.5mm							
Weight	166g					160g					173g							

Control Interface	USB2.0					USB2.0					USB2.0				
Power mode	Bus powerd (500mA)					Bus powerd (500mA)					Bus powerd (500mA)				
Connector	USB TypeA					USB TypeA					USB TypeA				

HIGH-RESOLUTION VARI-FOCAL REMOTE CONTROL LENS

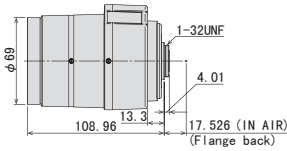
NEW Lens  **connect**
Varifocal Series



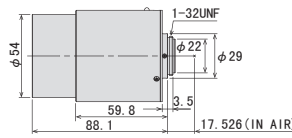
HIGH-RESOLUTION VARI-FOCAL REMOTE CONTROL LENS

Model No.	Format	Focal Length	F No.	Resolution	Working Distance	Weight
VL6Z1626UC-MPYIR	1.1"	16-96mm	F2.6	12MP	3m-Inf.	330g
VL2Z2533UM6C-MPWIR	1"	25-50mm	F3.3	9MP	WIDE:1m-Inf TELE:3m-Inf	269g
ML3Z1226UC-MPW	2/3"	12-36mm	F2.6	9MP	WIDE : 0.1m-Inf TELE : 0.35m-Inf	247g
EL3Z0416UCS-MPWIR	1/1.8"	4-10mm	F1.6	5MP	0.2m-Inf.	161g
EL6Z0915UCS-MPWIR	1/1.8"	9-50mm	F1.5	5MP	3m-Inf.	299g

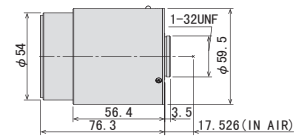
VL6Z1626UC-MPYIR



VL2Z2533UM6C-MPWIR



ML3Z1226UC-MPW



Focal Length	16mm - 96mm						25mm - 50mm						12mm - 36mm						
Max. Image Format	14.2mm × 10.4mm (φ 17.6mm)						φ 16.0mm						φ 11.8mm						
F-Number	WIDE	F2.6 - F16C					F3.3 - F16C						F2.6 - F16C						
	TELE	F2.7 - F16C					F3.4 - F16C						F2.6 - F16C						
Control	Iris	Motorized						Motorized						Motorized					
	Focus	Motorized						Motorized						Motorized					
	Zoom	Motorized						Motorized						Motorized					
Angle of View	D	1.1"	58.9° ~ 10.4°	1"	54.1° ~ 9.5°	2/3"	37.8° ~ 6.7°	1"	35.9° ~ 18.3°	2/3"	24.7° ~ 12.7°	1/1.8"	20.3° ~ 10.4°	2/3"	50.4° ~ 16.9°	1/1.8"	42.0° ~ 14.0°	1/3"	28.4° ~ 9.5°
	H		48.1° ~ 8.5°		48.1° ~ 8.5°		30.3° ~ 5.4°		28.8° ~ 14.7°		19.8° ~ 10.2°		16.2° ~ 8.3°		41.1° ~ 13.7°		33.9° ~ 11.3°		22.8° ~ 7.6°
	V		35.6° ~ 6.3°		25.7° ~ 4.5°		22.8° ~ 4.0°		21.6° ~ 11.1°		14.9° ~ 7.7°		12.2° ~ 6.3°		31.2° ~ 10.4°		25.6° ~ 8.5°		17.1° ~ 5.7°
Min. Objective Distance	3m from front of lens						WIDE: 1m - Inf TELE: 3m - Inf						WIDE : 0.1m - Inf TELE : 0.35m - Inf						
Operating Temperature	-20°C - +60°C						-20°C - +60°C						-20°C - +60°C						

Back Focal Length	WIDE	13.9mm (In Air)						15.0 mm (in Air)						16.4 mm (In Air)					
	TELE	13.9mm (In Air)						16.2 mm (in Air)						15.9 mm (In Air)					
Flange Back Length	17.526mm (In Air)						17.526mm (In Air)						17.526mm (In Air)						
Mount	C-Mount						C-Mount						C-Mount						
Filter Size	M67 P=0.75mm						M52 P=0.75mm						M49 P=0.75mm						
Tripod Screw	1/4-20UNC																		
Weight	330g						269g						247g						

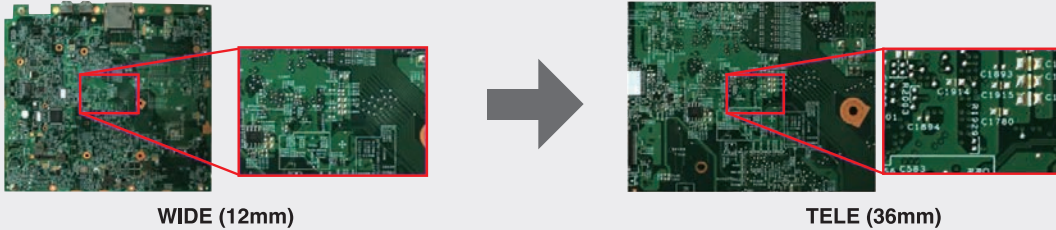
Control Interface	USB2.0						USB2.0						USB2.0					
Power mode	Bus power (500mA)						Bus power(500mA)						Bus power(500mA)					
Connector	USB TypeA						USB TypeA						USB TypeA					

HIGH-RESOLUTION VARI-FOCAL REMOTE CONTROL LENS

- Motorized lens that can be operated easily with a single USB cable
- Focus can be controlled via USB
- Fast speed focus control
- Ultra-high-resolution lens, suitable for 2/3" · 1/1.8" · 1.1"

2/3"	1"	MOTORIZED	IR
1/1.8"	1.1"	VARI	

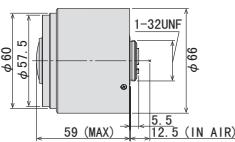
ML3Z1226UC-MPW



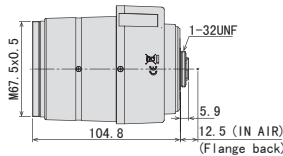
WIDE (12mm)

TELE (36mm)

EL3Z0416UCS-MPWIR



EL6Z0915UCS-MPWIR



Focal Length	4.0mm - 10mm				9mm - 50mm								
Max. Image Format	7.1mm × 5.4mm (φ 8.9mm)				7.1mm × 5.4mm (φ 8.9mm)								
F-Number	WIDE	F1.6 - F16C			F1.5 - F16C								
	TELE	F2.7 - F16C			F1.6 - F16C								
Control	Iris	Motorized			Motorized								
	Focus	Motorized			Motorized								
	Zoom	Motorized			Motorized								
Angle of View	D	1/1.8"	138.1° ~ 52.9°	1/3"	86.5° ~ 35.5°	1/2"	120.3° ~ 47.5°	1/1.8"	52.5° ~ 10.2°	1/3"	35.9° ~ 7.0°	1/2"	47.4° ~ 9.2°
	H		104.8° ~ 42.2°		68.1° ~ 28.4°		92.9° ~ 37.9°		42.3° ~ 8.2°		28.8° ~ 5.7°		38.2° ~ 7.5°
	V		76.3° ~ 31.6°		50.5° ~ 21.3°		68.1° ~ 28.4°		32.4° ~ 6.3°		21.7° ~ 4.3°		28.8° ~ 5.7°
Min. Objective Distance	0.2m from front of lens				3m from front of lens								
Operating Temperature	-20°C - +60°C				-20°C - +60°C								

Back Focal Length	WIDE	8.5mm (In Air)	9.2mm (In Air)
	TELE	8.5mm (In Air)	9.2mm (In Air)
Flange Back Length	12.5mm (In Air)		12.5mm (In Air)
Mount	CS-Mount		
Filter Size	M55 P=0.75mm (With VM0418)*		M67 P=0.75mm (With VM0918)*
Tripod Screw	1/4-20UNC		
Weight	161g		299g

Control Interface	USB2.0	
Power mode	Bus power (500mA)	
Connector	USB TypeA	

*Adapting for between 6mm and 10mm.
*When using filters, lens requires VM0418 (sold separately).
For more detail please refer to P.36

*When using filters, lens requires VM0418 (sold separately).
For more detail please refer to P.36

NEW

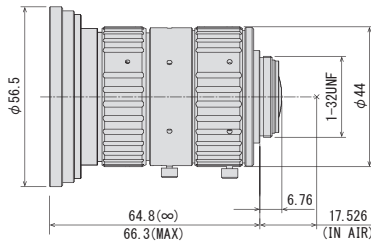
MPT Series

1.4" 45 MEGAPIXEL FIXED FOCAL LENS

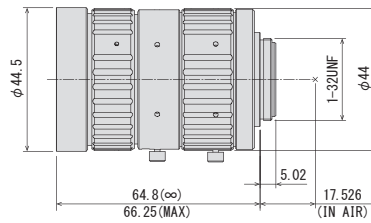


Model No.	Format	Focal Length	F No.	Working Distance	Weight
F1228-MPT	1.4"	12mm	F2.8	0.15m - Inf.	205g
F1628-MPT		16mm	F2.8	0.15m - Inf.	187g
F2524-MPT		25mm	F2.4	0.15m - Inf.	152g
F3526-MPT		35mm	F2.6	0.15m - Inf.	122g
F5026-MPT		50mm	F2.6	0.25m - Inf.	151g

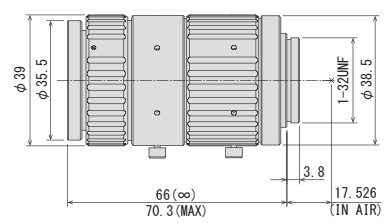
F1228-MPT



F1628-MPT



F2524-MPT



Focal Length	12mm						16mm						25mm						
Max. Aperture Ratio	1:2.8						1:2.8						1:2.4						
Image Circle Diameter	19.08mm × 13.03mm (φ 23.1mm)						19.08mm × 13.03mm (φ 23.1mm)						19.08mm × 13.03mm (φ 23.1mm)						
Operation Range	Iris	F2.8 - F16.0					Iris	F2.8 - F16.0					Iris	F2.4 - F16.0					
	Focus	0.15m - Inf.					Focus	0.15m - Inf.					Focus	0.15m - Inf.					
Control	Iris	Manual					Iris	Manual					Iris	Manual					
	Focus	Manual					Focus	Manual					Focus	Manual					
Angle of View	D		86.1°		76.6°		71.6°		70.1°		61.0°		56.5°		49.6°		42.4°		39.0°
	H	1.4"	76.0°	1.2"	61.9°	1.1"	60.4°	1.4"	60.4°	1.2"	48.1°	1.1"	46.9°	1.4"	41.9°	1.2"	32.7°	1.1"	31.8°
	V		56.2°		54.8°		46.1°		43.4°		42.2°		35.2°		29.3°		28.5°		23.6°
Operating Temperature	-10°C ~ +50°C						-10°C ~ +50°C						-10°C ~ +50°C						

Optical Distortion	1.4"	0.13	1.2"	-0.98	1.1"	-1.23	1.4"	0.06	1.2"	-0.43	1.1"	-0.54	1.4"	0.06	1.2"	-0.34	1.1"	-0.39
Back Focal Length	10.8mm						12.7mm						18.1mm					
Flange Back Length	17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount					
Filter Size	M72 P=0.75mm*						M52 P=0.75mm*						M34 P=0.5mm					
Dimensions	φ56.5mm × 64.8mm						φ44.5mm × 64.8mm						φ39mm × 66mm					
	φ75mm × 66.1mm (with TM-1243)						φ54mm × 66.4mm (with TM-1643)											
Weight	205g						187g						152g					

*When using filters, lens requires TM-1243(for 12mm)/TM-1643(for 16mm) (sold separately.) For more detail, please refer to P.36.

1.4" 45 MEGA PIXEL FIXED FOCAL LENS

- Ultra-high-resolution lens, suitable for 1.4" 45-megapixel sensor
- Enlarged image circle up to Ø23.1mm (1.4" sensor)
- The most compact, lightweight lens design on the machine vision market
- The newest optical design achieves much higher relative illuminance compared to conventional models despite a large format 1.4" sensor (Ø23.1mm)
- The floating design achieves an ultra-high-resolution from near focus to infinity
- Vibration resistance up to 5G

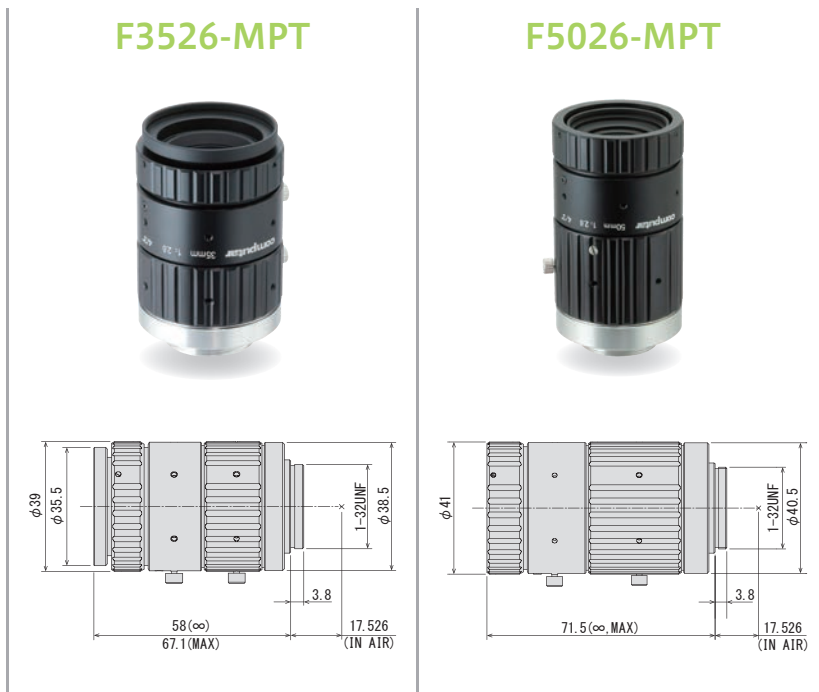
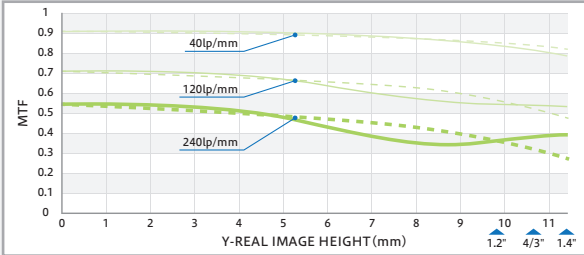
1.4"

45MP

MANUAL

FIX

FLOATING



Focal Length	35mm						50mm						
Max. Aperture Ratio	1:2.6						1:2.6						
Image Circle Diameter	19.08mm × 13.03mm (φ 23.1mm)						19.08mm × 13.03mm (φ 23.1mm)						
Operation Range	Iris	F2.6 - F16.0						F2.6 - F16.0					
	Focus	0.15m - Inf.						0.25m - Inf.					
Control	Iris	Manual						Manual					
	Focus	Manual						Manual					
Angle of View	D		36.6°		30.9°		28.3°		26.1°		21.9°		20.0°
	H	1.4"	30.6°	1.2"	23.6°	1.1"	23.0°	1.4"	21.7°	1.2"	16.7°	1.1"	16.2°
	V		21.1°		20.5°		16.9°		14.9°		14.4°		11.9°
Operating Temperature	-10°C ~ +50°C						-10°C ~ +50°C						

Optical Distortion	1.4"	0.01	1.2"	-0.05	1.1"	-0.06	1.4"	-0.02	1.2"	-0.03	1.1"	-0.03
Back Focal Length	23.1mm						14.2mm					
Flange Back Length	17.526mm						17.526mm					
Mount	C-Mount						C-Mount					
Filter Size	M34 P=0.5mm						M30.5 P=0.5mm					
Dimensions	φ39mm × 58mm						φ41mm × 71.5mm					
Weight	122g						151g					

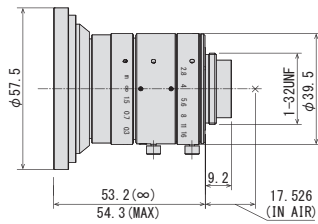


MPY Series

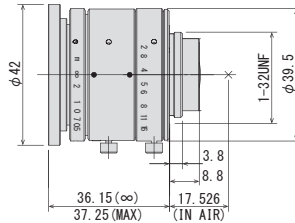
1.1" 24 MEGAPIXEL FIXED FOCAL LENS

Model No.	Format	Focal Length	F No.	Working Distance	Weight
V0828-MPY2	1.1"	8mm	F2.8-F16	0.2m-Inf.	157g
V1228-MPY2		12mm		0.3m-Inf.	97g
V1628-MPY2		16mm		0.3m-Inf.	89g
V2528-MPY		25mm		0.3m-Inf.	78g
V3528-MPY		35mm		0.3m-Inf.	103g
V5028-MPY		50mm		0.5m-Inf.	107g

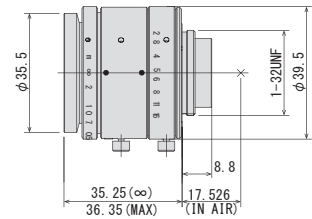
V0828-MPY2



V1228-MPY2



V1628-MPY2



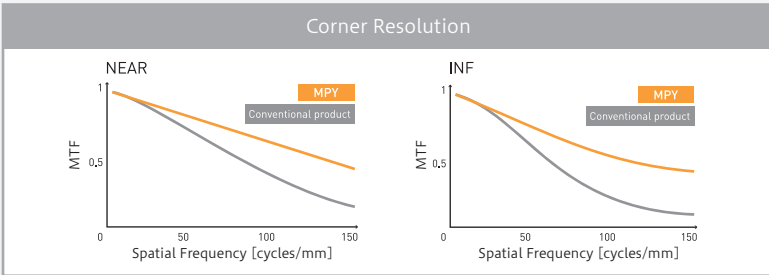
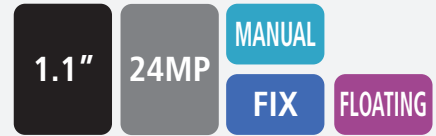
Focal Length	8mm					12mm					16mm								
Max. Aperture Ratio	1:2.8					1:2.8					1:2.8								
Max. Image Format	14.2mm × 10.4mm (φ 17.6mm)					14.2mm × 10.4mm (φ 17.6mm)					14.2mm × 10.4mm (φ 17.6mm)								
Operation Range	Iris F2.8 - F16.0					Iris F2.8 - F16.0					Iris F2.8 - F16.0								
	Focus 0.2m - Inf.					Focus 0.3m - Inf.					Focus 0.3m - Inf.								
Control	Iris Manual					Iris Manual					Iris Manual								
	Focus Manual					Focus Manual					Focus Manual								
Angle of View	D		93.9°		89.3°		69.0°		71.1°		66.4°		48.6°		57.9°		53.4°		38.2°
	H	1.1"	83.0°	1"	77.3°	2/3"	57.3°	1.1"	60.5°	1"	55.5°	2/3"	39.6°	1.1"	48.2°	1"	43.9°	2/3"	30.9°
	V		66.0°		61.7°		44.2°		46.2°		42.9°		30.1°		36.2°		33.6°		23.4°
Operating Temperature	-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C								

Optical Distortion	1.1"	-0.6%	1"	-1.7%	2/3"	-2.8%	1.1"	-0.5%	1"	-1.0%	2/3"	-1.4%	1.1"	-0.5%	1"	-0.6%	2/3"	-0.6%
Back Focal Length	8.6mm						8.4mm						9.4mm					
Flange Back Length	17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount					
Filter Size	M72 P=0.75mm (with VM0811)*						M40.5 P=0.5mm						M34.0 P=0.5mm					
	M67 P=0.75mm (with VM0810)*																	
Dimensions	φ75mm × 53.2mm						φ42.0mm × 36.1mm						φ39.5mm × 35.2mm					
Weight	157g						97g						89g					

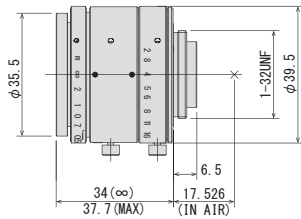
*There is no filter mount on the top of the lens.
When using filters, lens requires VM0811 or VM0810 (sold separately).
For more detail, please refer to P.36.

1.1" 24 MEGAPIXEL FIXED FOCAL LENS

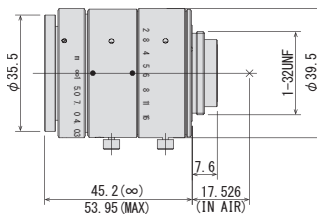
- Ultra-high-resolution lens, suitable for 1.1" 24 megapixel sensor
- Enlarged image circle up to $\phi 17.6\text{mm}$ (1.1" sensor)
- The most compact, lightweight lens design on the machine vision market
- The floating design achieves an ultra-high-resolution from near focus to infinity
- Vibration resistance up to 5G



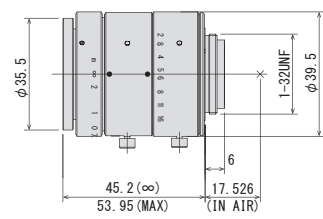
V2528-MPY



V3528-MPY



V5028-MPY



Focal Length	25mm						35mm						50mm						
Max. Aperture Ratio	1:2.8						1:2.8						1:2.8						
Max. Image Format	14.2mm × 10.4mm (φ 17.6mm)						14.2mm × 10.4mm (φ 17.6mm)						14.2mm × 10.4mm (φ 17.6mm)						
Operation Range	Iris	F2.8 - F16.0					F2.8 - F16.0						F2.8 - F16.0						
	Focus	0.3m - Inf.					0.3m - Inf.						0.5m - Inf.						
Control	Iris	Manual					Manual						Manual						
	Focus	Manual					Manual						Manual						
Angle of View	D	1.1"	38.7°	1"	35.4°	2/3"	24.8°	1.1"	28.2°	1"	25.8°	2/3"	17.9°	1.1"	20.0°	1"	18.2°	2/3"	12.6°
	H		31.7°		28.7°		20.0°		22.9°		20.7°		14.3°		16.2°		14.6°		10.1°
	V		23.5°		21.7°		15.0°		16.9°		15.6°		10.8°		11.9°		11.0°		7.6°
Operating Temperature	-10° C ~ +50° C						-10° C ~ +50° C						-10° C ~ +50° C						

Optical Distortion	1.1"	0.3%	1"	0.2%	2/3"	0.1%	1.1"	-0.1%	1"	0.0%	2/3"	0.0%	1.1"	0.1%	1"	0.1%	2/3"	0.1%
Back Focal Length	11.3mm						11.9mm						11.9mm					
Flange Back Length	17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount					
Filter Size	M34.0 P=0.5mm						M34.0 P=0.5mm						M34.0 P=0.5mm					
Dimensions	φ39.5mm × 34mm						φ39.5mm × 45.2mm						φ 39.5mm × 45.2mm					
Weight	78g						103g						107g					

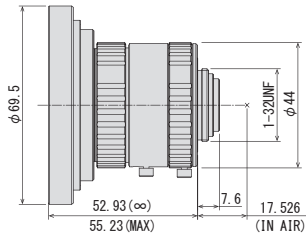


MPZ Series

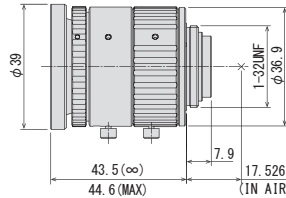
1" 20 MEGA PIXEL FIXED FOCAL LENS

Model No.	Format	Focal Length	F No.	Working Distance	Weight
V0826-MPZ	1"	8mm	F2.6-F16	0.1m-Inf.	203g
V1226-MPZ		12mm	F2.6-F16	0.1m-Inf.	98g
V1624-MPZ		16mm	F2.4-F16	0.1m-Inf.	108g
V2520-MPZ		25mm	F2.0-F16	0.15m-Inf.	73g
V3522-MPZ		35mm	F2.2-F16	0.2m-Inf.	118g
V5024-MPZ		50mm	F2.4-F16	0.2m-Inf.	138g
V7531-MPZ		75mm	F3.1-F16	0.25m-Inf.	176g

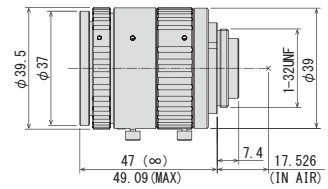
V0826-MPZ



V1226-MPZ



V1624-MPZ

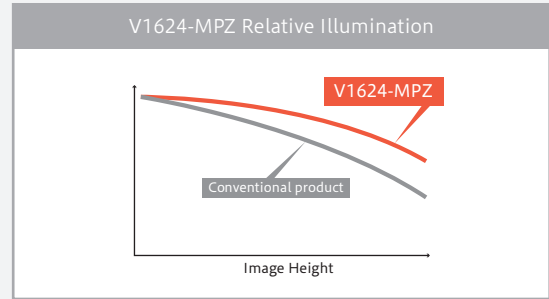
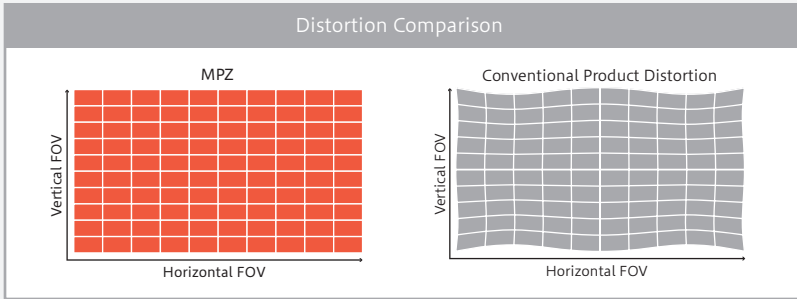
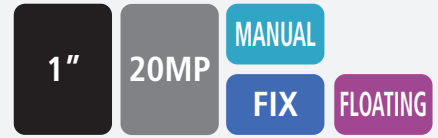


Focal Length	8mm					12mm					16mm								
Max. Aperture Ratio	1:2.6					1:2.6					1:2.4								
Max. Image Format	12.8mm × 9.6mm (φ 16mm)					12.8mm × 9.6mm (φ 16mm)					12.8mm × 9.6mm (φ 16mm)								
Operation Range	Iris	F2.6 - F16.0				F2.6 - F16.0					F2.4 - F16.0								
	Focus	0.1m - Inf.				0.1m - Inf.					0.1m - Inf.								
Control	Iris	Manual				Manual					Manual								
	Focus	Manual				Manual					Manual								
Angle of View	D	1"	88.8°	2/3"	68.6°	1/1.8"	58.2°	1"	67.4°	2/3"	49.8°	1/1.8"	41.5°	1"	53.2°	2/3"	38.1°	1/1.8"	31.6°
	H	1"	76.9°	2/3"	57.1°	1/1.8"	47.8°	1"	56.7°	2/3"	40.7°	1/1.8"	33.7°	1"	43.8°	2/3"	30.9°	1/1.8"	25.5°
	V	1"	61.5°	2/3"	44.2°	1/1.8"	36.6°	1"	44.1°	2/3"	31.0°	1/1.8"	25.5°	1"	33.6°	2/3"	23.4°	1/1.8"	19.2°
Operating Temperature	-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C								
Optical Distortion	1"	-0.8%	2/3"	-2.1%	1/1.8"	-1.9%	1"	0.0%	2/3"	-1.1%	1/1.8"	-1.0%	1"	0.0%	2/3"	-0.4%	1/1.8"	-0.4%	
Back Focal Length	10.6mm					10.6mm					10.7mm								
Flange Back Length	17.526mm					17.526mm					17.526mm								
Mount	C-Mount					C-Mount					C-Mount								
Filter Size	M82 P=0.75mm (with ZM0810)*					M37.5 P=0.5mm					M35.5 P=0.5mm								
Dimensions	φ 69.5mm × 52.93mm					φ 39mm × 43.5mm					φ 39.5mm × 47mm								
	φ 85.0mm × 53.83mm (with ZM0810)																		
Weight	203g					98g					108g								

*There is no filter mount on the top of the lens.
When using filters, lens requires ZM0810 (sold separately).
For more detail, please refer to P.34.

1" 20 MEGA PIXEL FIXED FOCAL LENS

- Ultra-high resolution lens, which is suitable for 1" 20 megapixel sensor
- Much lower distortion design for all models is beneficial for a variety of machine vision applications
- Has the newest optical design, which has a much higher relative illuminance compared to conventional models, despite having a large format 1" sensor
- Vibration resistance up to 5G



Focal Length	25mm				35mm				50mm				75mm				
Max. Aperture Ratio	1:2.0				1:2.2				1:2.4				1:3.1				
Max. Image Format	12.8mm × 9.6mm (φ 16mm)				12.8mm × 9.6mm (φ 16mm)				12.8mm × 9.6mm (φ 16mm)				12.8mm × 9.6mm (φ 16mm)				
Operation Range	Iris F2.0 - F16.0				F2.2 - F16.0				F2.4 - F16.0				F3.1 - F16.0				
	Focus 0.15m - Inf.				0.2m - Inf.				0.2m - Inf.				0.25m - Inf.				
Control	Iris Manual				Manual				Manual				Manual				
	Focus Manual				Manual				Manual				Manual				
Angle of View	D	1"	35.5°	24.9°	20.5°	1"	25.8°	17.9°	14.7°	1"	18.2°	12.6°	10.3°	1"	12.2°	8.4°	6.9°
	H	1"	28.8°	20.0°	16.4°	1"	20.8°	14.4°	11.8°	1"	14.6°	10.1°	8.3°	1"	9.8°	6.7°	5.5°
	V	1"	21.8°	15.1°	12.4°	1"	15.7°	10.8°	8.9°	1"	11.0°	7.6°	6.2°	1"	7.3°	5.0°	4.1°
Operating Temperature	-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C				

Optical Distortion	1"	0.0%	2/3"	0.0%	1/1.8"	0.0%	1"	0.0%	2/3"	0.0%	1/1.8"	0.0%	1"	0.0%	2/3"	0.0%	1/1.8"	0.0%						
Back Focal Length	9.1mm						9.7mm						11.1mm						12.0mm					
Flange Back Length	17.526mm						17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount						C-Mount					
Filter Size	M35.5 P=0.5mm						M34 P=0.5mm						M30.5 P=0.5mm						M30.5 P=0.5mm					
Dimensions	φ 37.5mm × 35.7mm						φ 39.5mm × 55.7mm						φ 42mm × 60.1mm						φ 42.0mm × 79.8mm					
Weight	73g						118g						138g						176g					

NEW

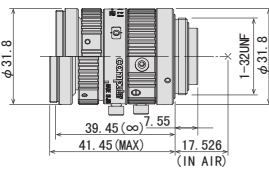
MPX Series

2/3" 16 MEGAPIXEL FIXED FOCAL LENS

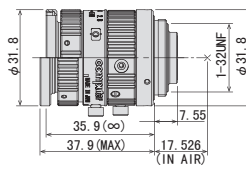


Model No.	Format	Focal Length	F No.	Working Distance	Weight
M0828-MPX	2/3"	8mm	F2.8-F16	0.1m - Inf	89g
M1228-MPX		12mm			78g
M1628-MPX		16mm			74g
M2528-MPX		25mm		83g	
M3528-MPX		35mm		0.15m - Inf	82g
M5028-MPX		50mm		0.2m - Inf	85g
M7538-MPX		75mm	F3.8 - F16	0.25m - Inf	89g

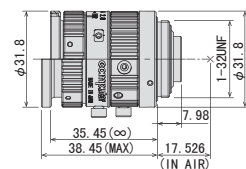
M0828-MPX



M1228-MPX



M1628-MPX



Focal Length	8mm						12mm						16mm						
Max. Aperture Ratio	1:2.8						1:2.8						1:2.8						
Max. Image Format	φ 11.8mm						φ 11.8mm						φ 11.8mm						
Operation Range	Iris F2.8 - F16.0						F2.8 - F16.0						F2.8 - F16.0						
	Focus 0.1m - Inf						0.1m - Inf						0.1m - Inf						
Control	Iris Manual						Manual						Manual						
	Focus Manual						Manual						Manual						
Angle of View	D	2/3"	67.5°	1/2"	52.0°	1/3"	40.2°	2/3"	49.2°	1/2"	36.9°	1/3"	28.1°	2/3"	37.9°	1/2"	28.1°	1/3"	21.3°
	H	2/3"	56.4°	1/2"	42.6°	1/3"	32.6°	2/3"	40.3°	1/2"	29.9°	1/3"	22.7°	2/3"	30.8°	1/2"	22.7°	1/3"	17.1°
	V	2/3"	43.9°	1/2"	32.6°	1/3"	24.7°	2/3"	30.8°	1/2"	22.7°	1/3"	17.1°	2/3"	23.4°	1/2"	17.1°	1/3"	12.9°
Operating Temperature	-10°C - +50°C						-10°C - +50°C						-10°C - +50°C						

Optical Distortion	2/3"	0.06%	1/2"	-0.39%	1/3"	-0.38%	2/3"	0.13%	1/2"	-0.03%	1/3"	-0.05%	2/3"	0.24%	1/2"	0.00%	1/3"	-0.03%
Back Focal Length	10.2mm						10.2mm						10.3mm					
Flange Back Length	17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount					
Filter Size	M40.5 P=0.5mm (with XM0823)						M30.5 P=0.5mm						M30.5 P=0.5mm					
Dimensions	φ 31.8mm × 39.45mm						φ 31.8mm × 35.9mm						φ 31.8mm × 35.45mm					
Weight	89g						78g						74g					

2/3" 16 MEGA PIXEL FIXED FOCAL LENS

- Anti-vibration (10G) and shock resistance design (10G) to adapt for harsh inspection environments
- High-resolution lens 2μm or less pixel size supported
- Floating mechanism enables high performance from close-up to long distance
- Precise focus adjustment with a focus rotation angle 3 times greater than usual lenses
- Adoption of click-type iris mechanism
- Wide lineup of f=8mm/12mm/16mm/25mm/35mm/50mm/75mm

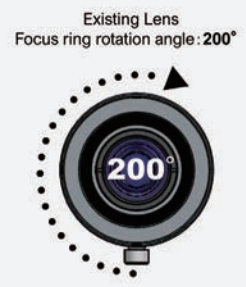
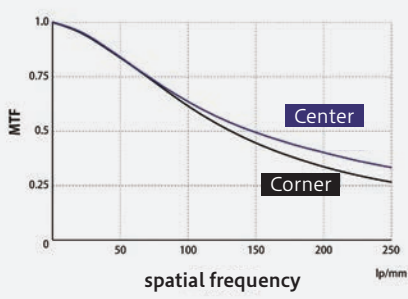
2/3"

16MP

MANUAL

FIX

FLOATING



3x wider rotation angle!
Easy focus adjustment



M2528-MPX	M3528-MPX	M5028-MPX	M7538-MPX

Focal Length	25mm					35mm					50mm					75mm									
Max. Aperture Ratio	1:2.8					1:2.8					1:2.8					1:3.8									
Max. Image Format	φ 11.8mm					φ 11.8mm					φ 11.8mm					φ 11.8mm									
Operation Range	Iris	F2.8 - F16.0					F2.8 - F16.0					F2.8 - F16.0					F3.8 - F16.0								
	Focus	0.1m - Inf					0.15m - Inf					0.2m - Inf					0.25m - Inf								
Control	Iris	Manual					Manual					Manual					Manual								
	Focus	Manual					Manual					Manual					Manual								
Angle of View	D	24.8°		18.2°		13.7°		17.8°		13.0°		9.8°		12.6°		9.1°		6.9°		8.6°		6.3°		4.7°	
	H	2/3"	20.0°	1/2"	14.6°	1/3"	11.0°	2/3"	14.3°	1/2"	10.4°	1/3"	7.8°	2/3"	10.1°	1/2"	7.3°	1/3"	5.5°	2/3"	6.9°	1/2"	5.0°	1/3"	3.8°
	V	15.1°		11.0°		8.3°		10.8°		7.8°		5.9°		7.5°		5.5°		4.1°		5.2°		3.8°		2.8°	
Operating Temperature	-10°C - +50°C					-10°C - +50°C					-10°C - +50°C					-10°C - +50°C									

Optical Distortion	2/3"	0.06%	1/2"	0.00%	1/3"	-0.01%	2/3"	0.10%	1/2"	0.10%	1/3"	0.06%	2/3"	0.04%	1/2"	0.07%	1/3"	0.05%	2/3"	0.00%	1/2"	0.14%	1/3"	0.11%
Back Focal Length	9.5mm						10.9mm						13.2mm						11.9mm					
Flange Back Length	17.526mm						17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount						C-Mount					
Filter Size	M30.5 P=0.5mm						M30.5 P=0.5mm						M30.5 P=0.5mm						M30.5 P=0.5mm					
Dimensions	φ 31.8mm × 46mm						φ 31.8mm × 46mm						φ 31.8mm × 46mm						φ 31.8mm × 46mm					
Weight	83g						82g						85g						89g					

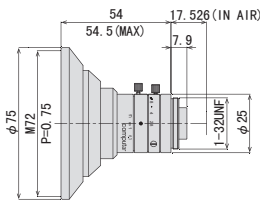


MPW3 Series

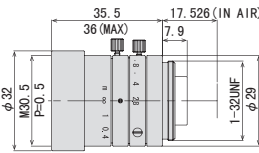
2/3" 6 MEGA PIXEL FIXED FOCAL LENS

Model No.	Format	Focal Length	F No.	Working Distance	Weight
M0528-MPW3	2/3"	5mm	F2.8-F16	0.1m-Inf.	163g
M0828-MPW3		8mm		0.1m-Inf.	58g
M1228-MPW3		12mm		0.1m-Inf.	60g
M1628-MPW3		16mm		0.25m-Inf.	37g
M2528-MPW3		25mm		0.2m-Inf.	42g
M3528-MPW3		35mm		0.25m-Inf.	48g
M5028-MPW3		50mm		0.3m-Inf.	65g
M7528-MPW3		75mm		0.4m-Inf.	102g

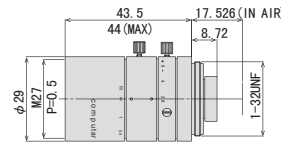
M0528-MPW3



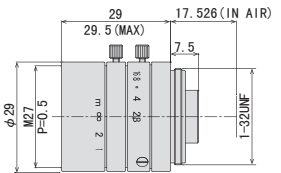
M0828-MPW3



M1228-MPW3



M1628-MPW3



Focal Length	5mm					8mm					12mm					16mm									
Max. Aperture Ratio	1:2.8					1:2.8					1:2.8					1:2.8									
Max. Image Format	8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)									
Operation Range	Iris F2.8 - F16.0					F2.8 - F16.0					F2.8 - F16.0					F2.8 - F16.0									
	Focus 0.1m - Inf.					0.1m - Inf.					0.1m - Inf.					0.25m - Inf.									
Control	Iris Manual					Manual					Manual					Manual									
	Focus Manual					Manual					Manual					Manual									
Angle of View	D	94.6°		83.8°		71.4°		68.5°		57.7°		47.2°		49.3°		40.8°		33.0°		37.8°		31.4°		25.0°	
	H	2/3"	83.2°	1/1.8"	71.6°	1/2.5"	59.8°	2/3"	57.0°	1/1.8"	47.3°	1/2.5"	38.5°	2/3"	40.3°	1/1.8"	33.1°	1/2.5"	26.7°	2/3"	30.7°	1/1.8"	25.3°	1/2.5"	20.2°
	V	67.5°		58.3°		46.6°		44.2°		37.5°		29.4°		30.8°		26.0°		20.3°		23.3°		19.2°		15.3°	
Operating Temperature	-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C									

Optical Distortion	2/3"	0.03%	1/1.8"	-2.14%	1/2.5"	-2.72%	2/3"	-1.80%	1/1.8"	-1.68%	1/2.5"	-1.28%	2/3"	-0.10%	1/1.8"	0.04%	1/2.5"	0.00%	2/3"	0.47%	1/1.8"	0.15%	1/2.5"	0.03%
Back Focal Length	9.2mm						10.1mm						9.2mm						10.3mm					
Flange Back Length	17.526mm						17.526mm						17.526mm						17.526mm					
Mount	C-Mount						C-Mount						C-Mount						C-Mount					
Filter Size	M72 P=0.75mm						M30.5 P=0.5mm						M27 P=0.5mm						M27 P=0.5mm					
Dimensions	φ 75mm × 54mm						φ 32mm × 35.5mm						φ 29mm × 43.5mm						φ 29mm × 29mm					
Weight	163g						58g						60g						37g					

2/3" 6 MEGAPIXEL FIXED FOCAL LENS

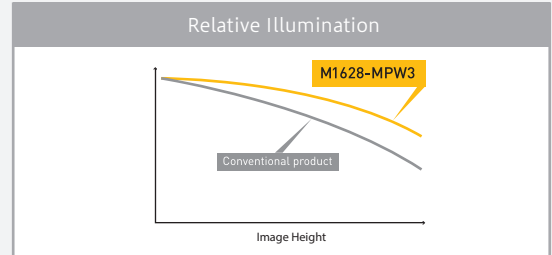
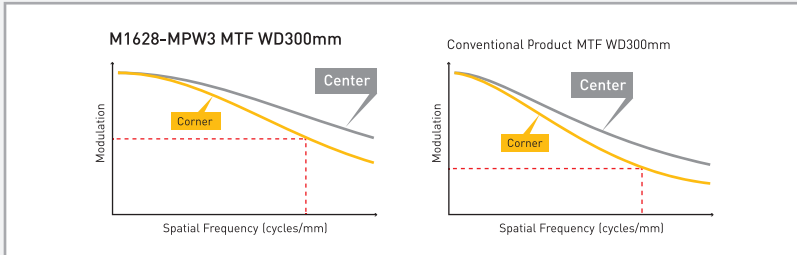
- Suitable for 2/3" 6 megapixel
- A variety of focal lengths from 5mm to 75mm
- Maintains high performance at long WD
- Has an ultra-compact Ø29 diameter with a nearly-identical mechanical length
- High resolution up to the edges of the screen
- Vibration resistance up to 5G

2/3"

6MP

MANUAL

FIX



M2528-MPW3	M3528-MPW3	M5028-MPW3	M7528-MPW3
			
			

Focal Length	25mm					35mm					50mm					75mm									
Max. Aperture Ratio	1:2.8																								
Max. Image Format	8.8mm × 6.6mm (φ 11mm)																								
Operation Range	Iris F2.8 - F16.0																								
	Focus 0.2m - Inf.																								
Control	Iris Manual																								
	Focus Manual																								
Angle of View	D	24.6°	20.3°	16.1°	17.9°	14.4°	11.6°	12.5°	10.2°	8.1°	8.4°	6.9°	5.4°	19.9°	16.3°	13.0°	14.3°	11.7°	9.3°	10.0°	8.2°	6.5°	6.7°	5.5°	4.3°
	H	15.0°	12.3°	9.8°	10.8°	8.7°	7.0°	7.5°	6.2°	4.9°	5.0°	4.1°	3.3°	15.0°	12.3°	9.8°	10.8°	8.7°	7.0°	7.5°	6.2°	4.9°	5.0°	4.1°	3.3°
	V	15.0°	12.3°	9.8°	10.8°	8.7°	7.0°	7.5°	6.2°	4.9°	5.0°	4.1°	3.3°	15.0°	12.3°	9.8°	10.8°	8.7°	7.0°	7.5°	6.2°	4.9°	5.0°	4.1°	3.3°
Operating Temperature	-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C									

Optical Distortion	2/3"	0.77%	1/1.8"	0.49%	1/2.5"	0.29%	2/3"	0.06%	1/1.8"	0.04%	1/2.5"	0.03%	2/3"	0.00%	1/1.8"	0.00%	1/2.5"	0.00%	2/3"	0.33%	1/1.8"	0.21%	1/2.5"	0.12%
Back Focal Length	11.5mm						18.0mm						26.3mm						14.6mm					
Flange Back Length	17.526mm																							
Mount	C-Mount																							
Filter Size	M27 P=0.5mm						M27 P=0.5mm						M27 P=0.5mm						M34 P=0.5mm					
Dimensions	φ 29mm × 31.5mm						φ 29mm × 38.5mm						φ 29mm × 56mm						φ 36mm × 75mm					
Weight	42g						48g						65g						102g					

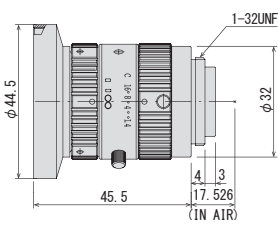


MP2 Series

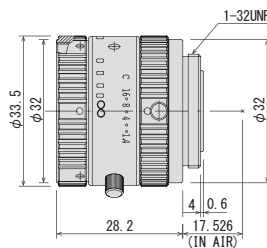
2/3" 1.5 MEGA PIXEL FIXED FOCAL LENS

Model No.	Format	Focal Length	F No.	Working Distance	Weight
H0514-MP2	1/2"	5mm	F1.4 - F16C	0.1m - Inf.	102g
M0814-MP2	2/3"	8mm	F1.4 - F16C	0.1m - Inf.	63g
M1214-MP2		12mm	F1.4 - F16C	0.15m - Inf.	62g
M1614-MP2		16mm	F1.4 - F16C	0.3m - Inf.	60g
M2514-MP2		25mm	F1.4 - F16C	0.3m - Inf.	71g
M3514-MP		35mm	F1.4 - F16C	0.3m - Inf.	87g
M5018-MP2		50mm	F1.8 - F16C	0.5m - Inf.	85g
M7528-MP		75mm	F2.8 - F16C	0.3m - Inf.	113g

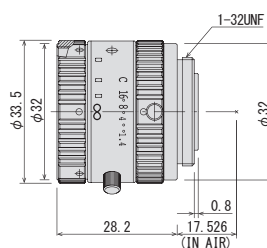
H0514-MP2



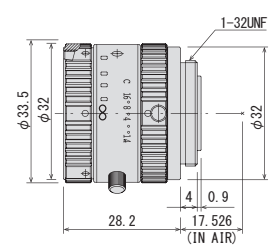
M0814-MP2



M1214-MP2



M1614-MP2



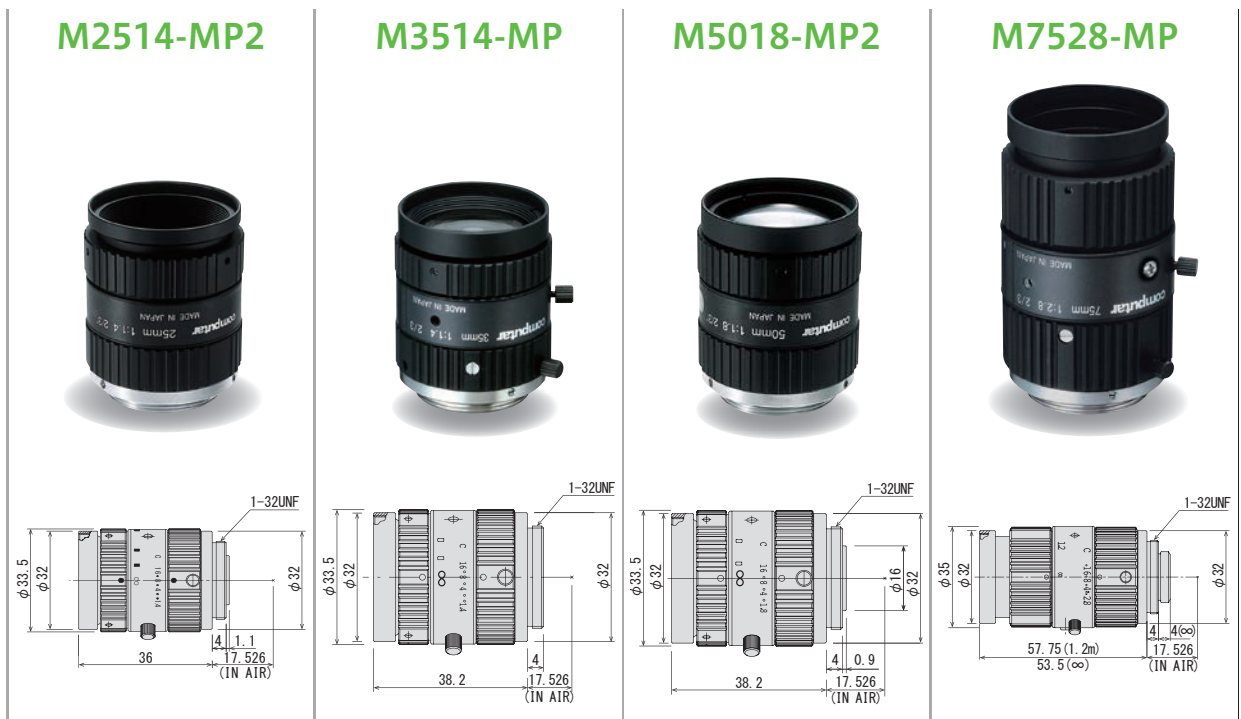
Focal Length	5mm				8mm				12mm				16mm						
Max. Aperture Ratio	1:1.4				1:1.4				1:1.4				1:1.4						
Max. Image Format	6.4mm × 4.8mm (φ 8mm)				8.8mm × 6.6mm (φ 11mm)				8.8mm × 6.6mm (φ 11mm)				8.8mm × 6.6mm (φ 11mm)						
Operation Range	Iris F1.4 - F16C				F1.4 - F16C				F1.4 - F16C				F1.4 - F16C						
	Focus 0.1m - Inf				0.1m - Inf.				0.15m - Inf.				0.3m - Inf.						
Control	Iris Manual				Manual				Manual				Manual						
	Focus Manual				Manual				Manual				Manual						
Angle of View	D	76.7°		62.3°		67.1°		51.9°		49.2°		37.0°		38.0°		28.2°			
	H	1/2"	65.5°		1/3"	51.4°		2/3"	56.3°		1/2"	42.5°		2/3"	30.8°		1/2"	22.7°	
	V	51.4°		39.5°		43.7°		32.4°		30.8°		22.7°		23.4°		17.1°			
Operating Temperature	-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C						

Optical Distortion	1/2"	-0.48%	1/3"	-2.26%	2/3"	-0.1%	1/2"	-1.1%	2/3"	-0.1%	1/2"	-0.35%	2/3"	-0.1%	1/2"	-0.3%
Back Focal Length	10.8mm				13.1mm				13.1mm				13.1mm			
Flange Back Length	17.526mm				17.526mm				17.526mm				17.526mm			
Mount	C-Mount				C-Mount				C-Mount				C-Mount			
Filter Size	M43 P=0.75mm				M30.5 P=0.5mm				M30.5 P=0.5mm				M30.5 P=0.5mm			
Dimensions	φ 44.5mm × 45.5mm				φ33.5mm × 28.2mm				φ33.5mm × 28.2mm				φ33.5mm × 28.2mm			
Weight	102g				63g				62g				60g			

2/3" 1.5 MEGA PIXEL FIXED FOCAL LENS

- Eight focal lengths in series: 5mm, 8mm, 12mm, 16mm, 25mm, 35mm, 50mm, and 75mm
- Compatible with 2/3" format sensor (H0514-MP2 : 1/2")
- Low distortion (less than 1.0%)
- Locking set screws for focus and iris
- Compact design - diameter 33.5mm (H0514-MP2 : 44.5mm)

1/2"	1.5MP	MANUAL
2/3"		FIX



Focal Length	25mm				35mm				50mm				75mm				
Max. Aperture Ratio	1:1.4				1:1.4				1:1.8				1:2.8				
Max. Image Format	8.8mm × 6.6mm (φ 11mm)				8.8mm × 6.6mm (φ 11mm)				8.8mm × 6.6mm (φ 11mm)				8.8mm × 6.6mm (φ 11mm)				
Operation Range	Iris	F1.4 - F16C			Iris	F1.4 - F16C			Iris	F1.8 - F16C			Iris	F2.8 - F16C			
	Focus	0.3m - Inf.			Focus	0.3m - Inf.			Focus	0.5m - Inf.			Focus	0.3m - Inf. (※)			
Control	Iris	Manual			Iris	Manual			Iris	Manual			Iris	Manual			
	Focus	Manual			Focus	Manual			Focus	Manual			Focus	Manual			
Angle of View	D	24.9°		18.2°		17.3°		12.6°		13.1°		9.5°		8.5°		6.2°	
	H	2/3" 20.0°		1/2" 14.6°		2/3" 13.9°		1/2" 10.1°		2/3" 10.5°		1/2" 7.6°		2/3" 6.8°		1/2" 5.0°	
	V	15.1°		11.0°		10.4°		7.6°		7.9°		5.7°		5.1°		3.7°	
Operating Temperature	-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C				

Optical Distortion	2/3"	-0.3%	1/2"	-0.1%	2/3"	-0.8%	1/2"	-0.4%	2/3"	-0.3%	1/2"	-0.2%	2/3"	-0.4%	1/2"	-0.2%
Back Focal Length	13.1mm				17.1mm				13.1mm				21.5mm			
Flange Back Length	17.526mm				17.526mm				17.526mm				17.526mm			
Mount	C-Mount				C-Mount				C-Mount				C-Mount			
Filter Size	M30.5 P=0.5mm				M30.5 P=0.5mm				M30.5 P=0.5mm				M30.5 P=0.5mm			
Dimensions	φ33.5mm × 36.0mm				φ 33.5mm × 38.2mm				φ 33.5mm × 38.2mm				φ 35mm × 57.75mm			
Weight	71g				87g				85g				113g			

*Factory setting is 0.3-1.2m. Focus can be adjusted to infinity by removing "Focus Limit Screw"

VISIBLE + SWIR IMAGE SENSOR FIXED FOCAL LENS



NEW

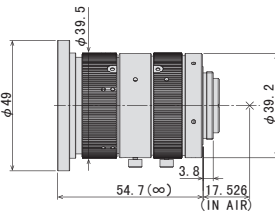
VISWIR HYPER APO

VISIBLE + SWIR IMAGE SENSOR FIXED FOCAL LENS

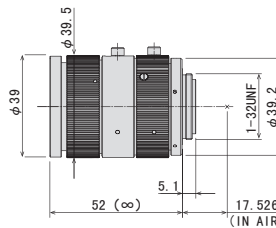
- Dedicated design for next generation Visible+SWIR InGaAs image sensor (IMX990/IMX991/IMX992/IMX993)
- Hyper-Apochromat design with fully correct focus shift between 400-1700nm
- Floating-focus mechanism realizes axial chromatic aberration and chromatic aberration of magnification at all WD and wavelengths
- High transmittance at entire wavelength of 400nm-1700nm by adopting hyper wideband AR coat
- The NIR-absorbent coating prevents light scattering and provides clear image quality

Model No.	Format	Focal Length	F-No.	Working Distance	Weight
M0818-APVSW2	1/1.4"	8mm	F1.8	0.1m - Inf.	171g
M1218-APVSW2		12mm		0.1m - Inf.	163g
M1618-APVSW2		16mm		0.1m - Inf.	170g
M2518-APVSW2		25mm		0.1m - Inf.	140g
M3518-APVSW		35mm		0.15m - Inf.	199g
M5018-APVSW		50mm		0.2m - Inf.	174g

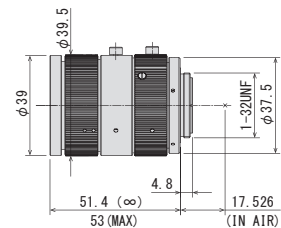
M0818-APVSW2



M1218-APVSW2



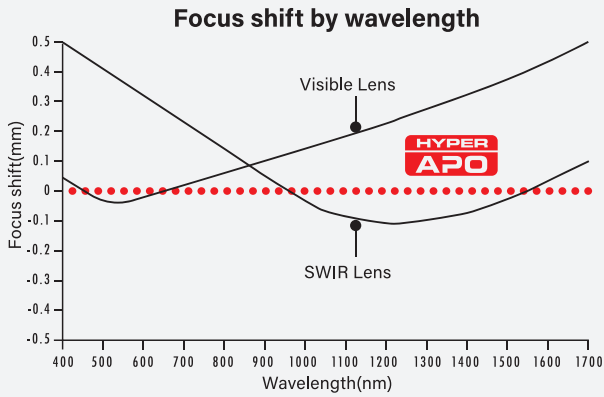
M1618-APVSW2



Focal Length	8mm								12mm								16mm								
Max. Aperture Ratio	1:1.8								1:1.8								1:1.8								
Max. Image Format	φ 11.4mm								φ 11.4mm								φ 11.4mm								
Wavelength Range	400nm - 1700nm								400nm - 1700nm								400nm - 1700nm								
Operation Range	Iris F1.8 - F16.0								Iris F1.8 - F16.0								Iris F1.8 - F16.0								
	Focus 0.1m - Inf.								Focus 0.1m - Inf.								Focus 0.1m - Inf.								
Control	Iris Manual								Iris Manual								Iris Manual								
	Focus Manual								Focus Manual								Focus Manual								
Angle of View	D	68.7°		56.6°		53.2°		28.1°		50.4°		40.5°		37.9°		19.5°		38.9°		31.0°		28.8°		14.6°	
	H	1/1.4"	56.6°	1/1.8"	46.7°	1/2"	42.7°	1/4"	22.1°	1/1.4"	40.5°	1/1.8"	32.9°	1/2"	30.0°	1/4"	15.2°	1/1.4"	31.0°	1/1.8"	25.0°	1/2"	22.7°	1/4"	11.4°
	V	46.7°		35.8°		34.7°		17.7°		32.9°		25.0°		24.2°		12.2°		25.0°		18.9°		18.2°		9.2°	
Operating Temperature	-10° C ~ +50° C								-10° C ~ +50° C								-10° C ~ +50° C								

Optical Distortion	1/1.4"	0.6%	1/1.8"	-0.3%	1/1.4"	0.1%	1/1.8"	-0.2%	1/1.4"	0.1%	1/1.8"	-0.3%
Back Focal Length	11.5mm				12.5mm				14.2mm			
Flange Back Length	17.526mm				17.526mm				17.526mm			
Mount	C-Mount				C-Mount				C-Mount			
Filter Size	M46 P=0.75mm				M37.5 P=0.5mm				M37.5 P=0.5mm			
Dimensions	φ49mm×54.7mm				φ39.5mm×52.0mm				φ39.5mm×51.4mm			
Weight	171g				163g				170g			

VISIBLE + SWIR IMAGE SENSOR FIXED FOCAL LENS

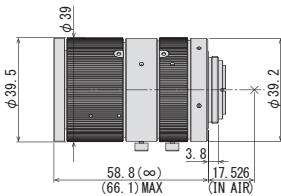


Ultra-high resolution from 400 nm visible light to 1700 nm near infrared with no focus shift.

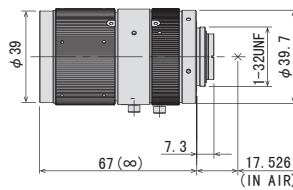
2/3" (1/1.4") 5MP Visible + SWIR MANUAL Apochromat FIX FLOATING



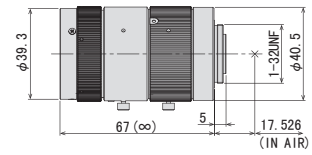
M2518-APVSW2



M3518-APVSW



M5018-APVSW



Focal Length	25mm				35mm				50mm				
Max. Aperture Ratio	1:1.8				1:1.8				1:1.8				
Max. Image Format	φ 11.4mm				φ 11.4mm				φ 11.4mm				
Wavelength Range	400nm - 1700nm				400nm - 1700nm				400nm - 1700nm				
Operation Range	Iris	F1.8 - F16.0			Iris	F1.8 - F16.0			Iris	F1.8 - F16.0			
	Focus	0.1m - Inf.			Focus	0.15m - Inf.			Focus	0.2m - Inf.			
Control	Iris	Manual			Iris	Manual			Iris	Manual			
	Focus	Manual			Focus	Manual			Focus	Manual			
Angle of View	D	25.5°	20.0°	18.6°	9.4°	18.4°	14.4°	13.4°	6.8°	12.8°	10.1°	9.5°	4.7°
	H	1/1.4" 20.0°	1/1.8" 16.1°	1/2" 14.6°	1/4" 7.3°	1/1.4" 14.4°	1/1.8" 11.6°	1/2" 10.5°	1/4" 5.3°	1/1.4" 10.2°	1/1.8" 8.1°	1/2" 7.4°	1/4" 3.7°
	V	16.1°	12.1°	11.7°	5.9°	11.6°	8.7°	8.4°	4.2°	8.2°	6.1°	5.9°	3.0°
Operating Temperature	-10° C ~ +50° C				-10° C ~ +50° C				-10° C ~ +50° C				

Optical Distortion	1/1.4"	0.0%	1/1.8"	-0.1%	1/1.4"	0.0%	1/1.8"	0.0%	1/1.4"	0.2%	1/1.8"	0.2%
Back Focal Length	11.9mm				12.6mm				13.4mm			
Flange Back Length	17.526mm				17.526mm				17.526mm			
Mount	C-Mount				C-Mount				C-Mount			
Filter Size	M37.5 P=0.5mm				M37.5 P=0.5mm				M37.5 P=0.5mm			
Dimensions	φ39.5mm×58.8mm				φ41mm×67.0mm				φ41mm×67.0mm			
Weight	140g				199g				174g			

VISIBLE + SWIR IMAGE SENSOR FIXED FOCAL LENS

NEW

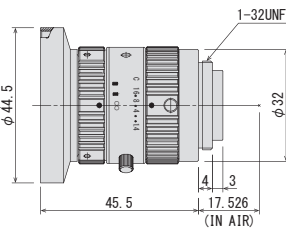
VISIR Lite

VISIBLE + SWIR IMAGE SENSOR FIXED FOCAL LENS

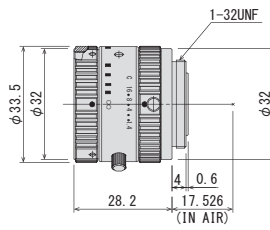


Model No.	Format	Focal Length	F-No.	Working Distance	Distortion	Weight
H0514-VSW	1/2"	5mm	F1.4	0.1m - Inf.	-0.48%(y=4.0)	102g
M0814-VSW		8mm		0.1m - Inf.	-0.1%(y=5.5)	63g
M1214-VSW		12mm		0.15m - Inf.	-0.1%(y=5.5)	62g
M1614-VSW		16mm		0.3m - Inf.	-0.1%(y=5.5)	60g
M2514-VSW		25mm		0.3m - Inf.	-0.3%(y=5.5)	71g
M3514-VSW		35mm		0.3m - Inf.	-0.8%(y=5.5)	87g
M5018-VSW		50mm	F1.8	0.5m - Inf.	-0.3%(y=5.5)	85g

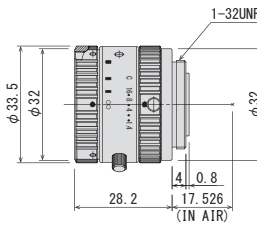
H0514-VSW



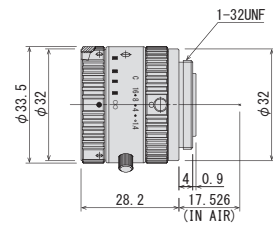
M0814-VSW



M1214-VSW



M1614-VSW



Focal Length	5mm					8mm					12mm					16mm						
Max. Aperture Ratio	1:1.4					1:1.4					1:1.4					1:1.4						
Max. Image Format	6.40mm × 5.12mm (φ 8.20mm)					8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)						
Wavelength Range	400nm - 1700nm					400nm - 1700nm					400nm - 1700nm					400nm - 1700nm						
Operation Range	Iris	F1.4 - 16C				Iris	F1.4 - F16C				Iris	F1.4 - F16C				Iris	F1.4 - F16C					
	Focus	0.1m - 0.9m				Focus	0.1m - Inf.				Focus	0.15m - Inf.				Focus	0.3m - Inf.					
Control	Iris	Manual				Iris	Manual				Iris	Manual				Iris	Manual					
	Focus	Manual				Focus	Manual				Focus	Manual				Focus	Manual					
Angle of View	D	IMX990	77.8°	IMX991	44.6°	76.7°	IMX990	53.0°	IMX991	27.9°	67.1°	IMX990	37.8°	IMX991	19.4°	49.2°	IMX990	28.8°	IMX991	14.6°	38.0°	
	H	6.40mm × 65.5°	3.20mm × 35.3°	1/2"	65.5°	6.40mm × 42.5°	3.20mm × 21.9°	2/3"	56.3°	6.40mm × 34.5°	3.20mm × 17.6°	5.12mm × 24.1°	3.00" × 15.2°	2/3"	40.4°	6.40mm × 22.7°	3.20mm × 11.4°	2/3"	30.8°	5.12mm × 18.2°	2.56mm × 9.2°	23.4°
	V	5.12mm	54.5°	2.56mm	28.5°	5.14°	5.12mm	34.5°	2.56mm	17.6°	43.7°	5.12mm	24.1°	2.56mm	12.2°	30.8°	5.12mm	18.2°	2.56mm	9.2°	23.4°	
Operating Temperature	-10°C ~ +50°C					-10°C ~ +50°C					-10°C ~ +50°C					-10°C ~ +50°C						

Optical Distortion	1/2"	-0.48%	1/3"	-2.26%	2/3"	-0.1%	1/2"	-1.1%	2/3"	-0.1%	1/2"	-0.35%	2/3"	-0.1%	1/2"	-0.3%
Back Focal Length	10.8mm				13.1mm				13.1mm				13.1mm			
Flange Back Length	17.526mm				17.526mm				17.526mm				17.526mm			
Mount	C-Mount				C-Mount				C-Mount				C-Mount			
Filter Size	M43 P=0.75mm				M30.5 P=0.5mm				M30.5 P=0.5mm				M30.5 P=0.5mm			
Dimensions	φ44.5mm × 45.5mm				φ33.5mm × 28.2mm				φ33.5mm × 28.2mm				φ33.5mm × 28.2mm			
Weight	102g				63g				62g				60g			

VISIBLE + SWIR IMAGE SENSOR FIXED FOCAL LENS

- High transmittance at entire wavelength of 400nm-1700nm by adopting hyper wideband AR coat
- Outstanding cost-performance for single-wavelength lighting and narrow-band imaging
- Series includes 5mm, 8mm, 12mm, 16mm, 25mm, 35mm, and 50mm focal lengths
- The NIR-absorbent coating prevents light scattering and provides clear image quality
- Compact design

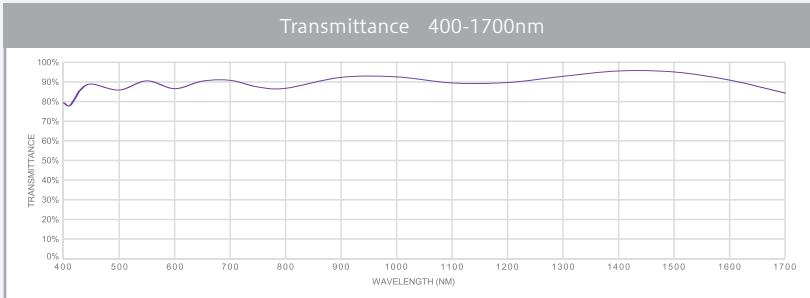
1/2"

Visible
+SWIR

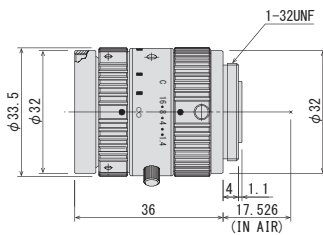
MANUAL

2/3"

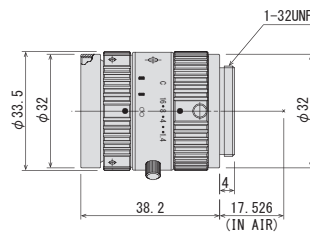
FIX



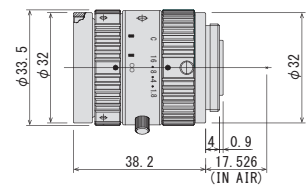
M2514-VSW



M3514-VSW



M5018-VSW



Focal Length	25mm					35mm					50mm								
Max. Aperture Ratio	1:1.4					1:1.4					1:1.8								
Max. Image Format	8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)					8.8mm × 6.6mm (φ 11mm)								
Wavelength Range	400nm - 1700nm					400nm - 1700nm					400nm - 1700nm								
Operation Range	Iris	F1.4 - F16C				F1.4 - F16C					F1.8 - F16C								
	Focus	0.3m - Inf.				0.3m - Inf.					0.5m - Inf.								
Control	Iris	Manual				Manual					Manual								
	Focus	Manual				Manual					Manual								
Angle of View	D	IMX990	18.6°	IMX991	9.4°	2/3"	24.9°	IMX990	13.7°	IMX991	6.9°	2/3"	17.3°	IMX990	9.8°	IMX991	4.9°	2/3"	13.1°
	H	6.40mm × 5.12mm	14.6°	3.20mm × 2.56mm	7.3°		20.0°	6.40mm × 5.12mm	10.7°	3.20mm × 2.56mm	5.4°		13.9°	6.40mm × 5.12mm	7.6°	3.20mm × 2.56mm	3.8°		10.5°
	V		11.7°		5.9°		15.1°		8.6°		4.3°		10.4°		6.1°		3.1°		
Operating Temperature	-10° C ~ +50° C					-10° C ~ +50° C					-10° C ~ +50° C								

Optical Distortion	2/3"	-0.3%	1/2"	-0.1%	2/3"	-0.8%	1/2"	-0.39%	2/3"	-0.3%	1/2"	-0.2%
Back Focal Length	13.1mm				17.1mm				13.1mm			
Flange Back Length	17.526mm				17.526mm				17.526mm			
Mount	C-Mount				C-Mount				C-Mount			
Filter Size	M30.5 P=0.5mm				M30.5 P=0.5mm				M30.5 P=0.5mm			
Dimensions	φ33.5mm × 36mm				φ33.5mm × 38.2mm				φ33.5mm × 38.2mm			
Weight	71g				87g				85g			



MACRO ZOOM LENS

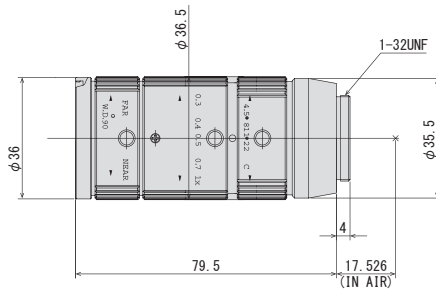
- 1/2" and 2/3" format models are ideal for a variety of inspection applications
- Optimal performance at variable working distances
- Highly versatile 3.3x magnification type suitable for megapixel applications
- Compact design

1/2" 1MP MANUAL
2/3" ZOOM MACRO

MLM-3XMP

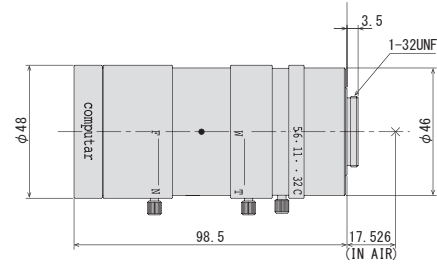
2/3"

1MP



MLH-10X

1/2"




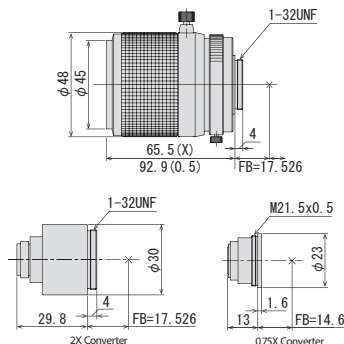

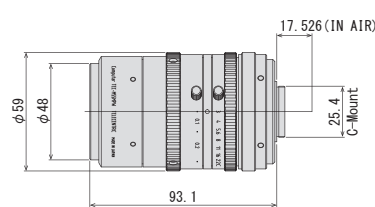

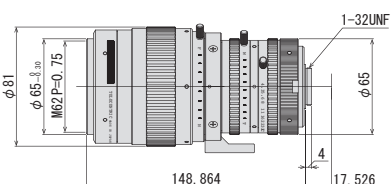
Optical Magnification	0.3x - 1.0x				0.084x - 0.84x											
Max. Aperture Ratio	1:4.5				1:5.6											
Max. Image Format	8.8mm × 6.6mm (φ 11mm)				6.4mm × 4.8mm (φ 8mm)											
Operation Range	Iris	F4.5 - F22C				F5.6 - F32C										
	Focus	90mm				150mm - 450mm										
Control	Iris	Manual				Manual										
	Focus	Manual				Manual										
	Zoom	Manual				Manual										
Angle of View	D	2/3"	14.9° - 2.9°		1/2"	10.7° - 2.8°		1/2"	21.6° - 4.5°		1/3"	17.0° - 3.3°		1/4"	13.0° - 2.5°	
	H		11.8° - 2.8°			8.5° - 2.2°			18.0° - 3.6°			13.8° - 2.7°			10.6° - 2.0°	
	V		8.8° - 2.3°			6.4° - 1.7°			13.8° - 2.7°			10.6° - 2.0°			8.0° - 1.5°	
Operating Temperature	-10° C ~ +50° C								-10° C ~ +50° C							
Optical Distortion	2/3"	+0.12% at 0.3x		1/2"	+0.12% at 0.3x		1/2"	+0.9% at 0.084x								
		+1.78% at 1.0x			+0.77% at 1.0x			+1.6% at 0.84x								
Back Focal Length	20.4mm								23.29mm							
Flange Back Length	17.526mm								17.526mm							
Mount	C-Mount								C-Mount							
Filter Size	M34 P=0.5mm								M46 P=0.75mm							
Dimensions	φ36.5mm × 79.5mm								φ48mm × 98.5mm							
Weight	150g								260g							

TELECENTRIC MACRO LENS



- WD140mm~Infinity. Suitable for use as a telephoto lens and macro lens [TEC-M55]
- Compact design, compatible with 5MP sensors [TEC-M55MPW]
- 1.1" format 5MP, 7.1X magnification (0.07X-0.5X) [TEC-V7X]

1.1" 5MP MANUAL MACRO
2/3" ZOOM TELECEN

TEC-M55	TEC-M55MPW	TEC-V7X
<p>2/3"</p>   <p>2X Converter 0.75X Converter</p>	<p>2/3"</p> <p>5MP</p>  	<p>1.1"</p> <p>5MP</p> <p>ZOOM</p>  

Focal Length	55mm	55mm (at 0.057x) 51mm (at 0.5x)	
Magnification	0.5x - Inf. (Max 1.0x at 140mm with 2X Converter)	0.057x - 0.5x	0.07x - 0.5x
Max. Aperture Ratio	1:2.8	1:3.0	1:4.3
Max. Image Format	8.8mm × 6.6mm (φ 11mm)	8.8mm × 6.6mm (φ 11mm)	12.3mm × 12.3mm (φ 17.4mm)
Operation Range	Iris	F2.8 - F32C	F4.3 - F32
	Focus	140mm - Inf.	139mm - 1000mm
Control	Iris	Manual	Manual
	Focus	Manual	Manual
	Zoom		Manual
Operating Temperature	-20° C ~ +50° C	-10° C ~ +50° C	-10° C ~ +50° C

Optical Distortion	2/3"	+0.2% at 0.2x	1/2"	+0.1% at 0.2x	2/3"	+0.52% at 0.057x	Tele	1.1"	1.0%	1"	0.84%	2/3"	0.39%
		+0.6% at 0.5x		+0.3% at 0.5x		+0.6% at 0.5x		Wide	1.1"		-1.7%		1"
Back Focal Length	29.8mm						17.0mm	Tele	39.53mm				
								Wide	49.78mm				
Flange Back Length	17.526mm					17.526mm	17.526mm						
Mount	C-Mount					C-Mount	C-Mount						
Filter Size	M43 P=0.75mm					M46.0 P=0.75mm	M62 P=0.75mm						
Dimensions	φ53.0mm × 92.9mm (Max. at 0.5x)					φ 59.0mm × 93.1mm	φ 61 × 152.86mm						
Weight	320g					400g	1400g						



TEC-V Series

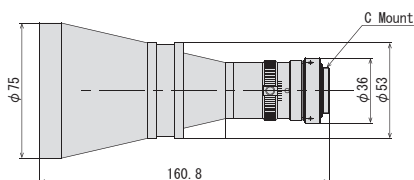
1.1", 1" MEGAPIXEL TELECENTRIC LENS

- 1.1" format 12MP (3.45μm) [TEC-V0345165MPY-WI]
- 1" format 5MP
- Versatile lineup designed for WD65mm and 110mm [TEC-V05/10]

1.1"	12MP
1"	5MP TELECEN

1.1" 12 MEGAPIXEL TELECENTRIC LENS

TEC-V0345165MPY-WI



Model (with coaxial type)	TEC-V0345165MPY-WI
Format	14.2mm × 10.4mm (φ 17.6mm)
Magnification	0.345x
Working Distance	165.2mm
Resolving Power *1	9.7μm
Depth of Field *2	6.63mm
NA	0.035
Effective F-number	5-32.4
TV Distortion	-0.024%

Mount	C-mount
Filter Size	M72 P=0.75mm
Weight	380g

1" 5 MEGAPIXEL TELECENTRIC LENS

WD-65mm		WD-110mm	
TEC-V0565MPW	TEC-V1065MPW	TEC-V05110MPW	TEC-V10110MPW

Model (with coaxial type)	TEC-V0565MPW	TEC-V1065MPW	TEC-V05110MPW	TEC-V10110MPW
Format	12.8mm × 9.6mm (φ 16.0mm)	12.8mm × 9.6mm (φ 16.0mm)	12.8mm × 9.6mm (φ 16.0mm)	12.8mm × 9.6mm (φ 16.0mm)
Magnification	0.5x	1.0x	0.5x	1.0x
Working Distance	65.2mm	65.2mm	110.2mm	110.2mm
Resolving Power *1	12μm	6μm	12μm	6μm
Depth of Field *2	2.88mm	0.72mm	2.88mm	0.72mm
NA	0.027	0.055	0.027	0.055
Effective F-number	9.0	9.0	9.0	9.0
TV Distortion	-0.014%	-0.023%	0.012%	0.015%

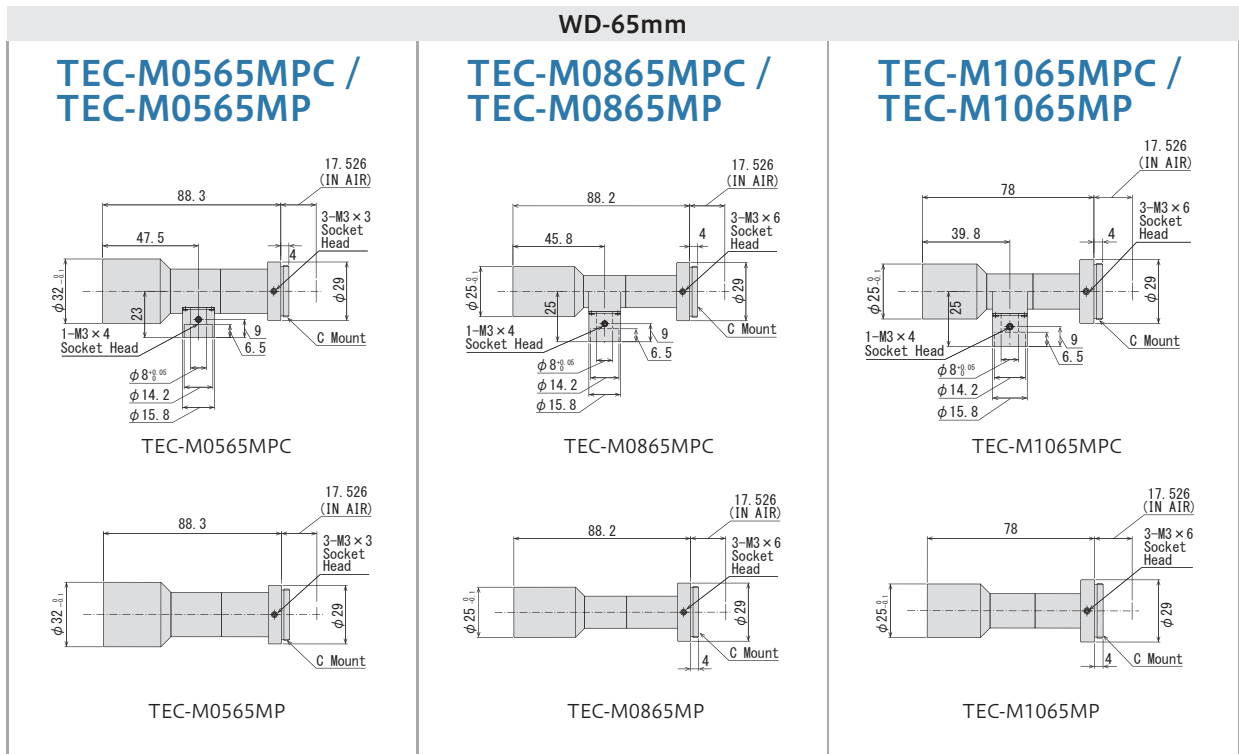
Mount	C-Mount	C-Mount	C-Mount	C-Mount
Weight	189g	158g	197g	159g

*1 : Theoretical resolution calculated with a wavelength of 550nm *2 : Value calculated with a permissible circle of confusion of 40μm
 *Variable Iris type available(TEC-V05110MPW WI/TEC-V10110MPW WI)

TEC-M Series

2/3" 2 MEGA PIXEL TELECENTRIC LENS

- Suitable for 2/3" 2MP sensor, WD65mm WD110mm



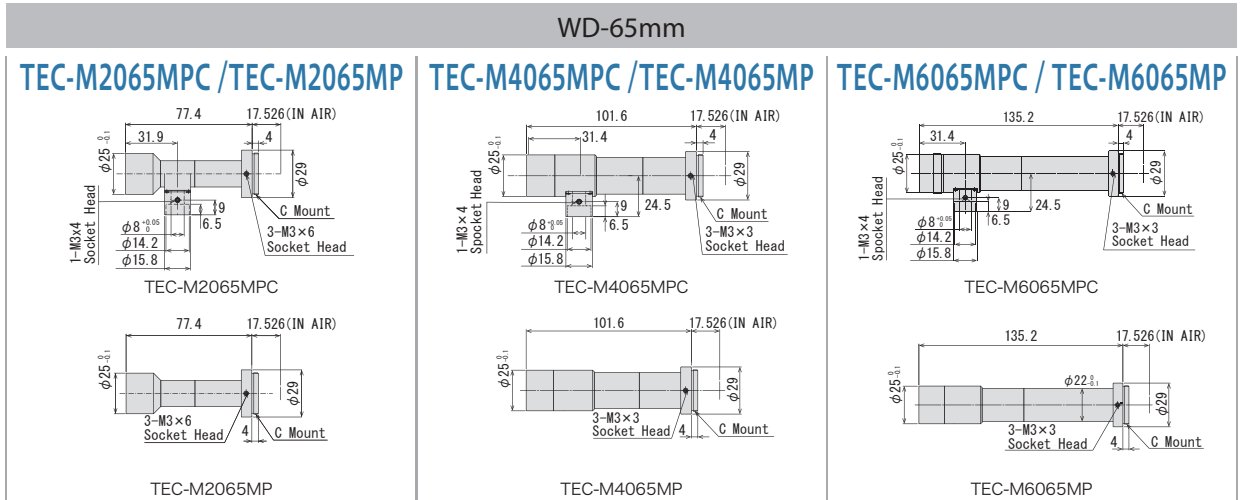
Model (with coaxial type)	TEC-M0565MPC	TEC-M0865MPC	TEC-M1065MPC
Model (straight type)	TEC-M0565MP	TEC-M0865MP	TEC-M1065MP
Format	8.8mm × 6.6mm (φ 11.0mm)	8.8mm × 6.6mm (φ 11.0mm)	8.8mm × 6.6mm (φ 11.0mm)
Magnification	0.5x	0.8x	1.0x
Working Distance	65.5mm	66mm	65.5mm
Resolving Power *1	12μm	8μm	6.7μm
Depth of Field *2	2.87mm	1.18mm	0.79mm
NA	0.028	0.042	0.05
Effective F-number	9.0	9.4	9.8
TV Distortion	-0.012%	0.008%	-0.022%

Mount	C-Mount	C-Mount	C-Mount
Weight (with coaxial type)	80g	62g	54g
Weight (straight type)	77g	57g	49g

*1 : Theoretical resolution calculated with a wavelength of 550nm *2 : Value calculated with a permissible circle of confusion of 40μm

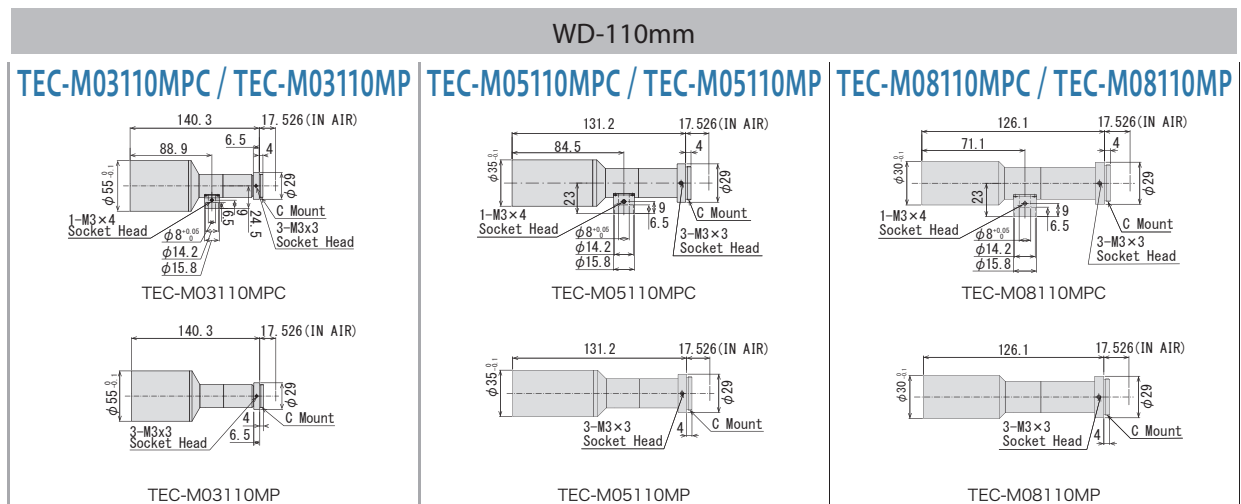
2/3" 2 MEGAPIXEL TELECENTRIC LENS

- Suitable for 2/3" 2MP sensor, WD65mm WD110mm



Model (with coaxial type)	TEC-M2065MPC	TEC-M4065MPC	TEC-M6065MPC
Model (straight type)	TEC-M2065MP	TEC-M4065MP	TEC-M6065MP
Format	8.8mm × 6.6m (φ 11.0mm)	2/3" φ 12.8mm	2/3" φ 12.8mm
Magnification	2.0x	4.0x	6.0x
Working Distance	65.4mm	65.3mm	64.0mm
Resolving Power *1	4.4μm	2.9μm	2.9μm
Depth of Field *2	0.26mm	0.08mm	0.06mm
NA	0.076	0.118	0.118
Effective F-number	12.8	16.9	25.5
TV Distortion	0.020%	-0.003%	-0.026%

Mount	C-Mount	C-Mount	C-Mount
Weight (with coaxial type)	55g	85g	100g
Weight (straight type)	49g	83g	98g



Model (with coaxial type)	TEC-M03110MPC	TEC-M05110MPC	TEC-M08110MPC
Model (straight type)	TEC-M03110MP	TEC-M05110MP	TEC-M08110MP
Format	8.8mm × 6.6m (φ 11.0mm)	8.8mm × 6.6m (φ 11.0mm)	8.8mm × 6.6m (φ 11.0mm)
Magnification	0.3x	0.5x	0.8x
Working Distance	111mm	111.8mm	111mm
Resolving Power *1	14.5μm	12.7μm	8.8μm
Depth of Field *2	5.75mm	3.03mm	1.31mm
NA	0.023	0.026	0.038
Effective F-number	6.5	9.4	10.2
TV Distortion	0.026%	-0.009%	-0.027%

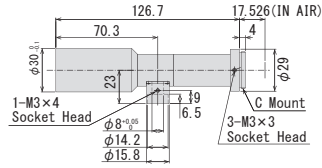
Mount	C-Mount	C-Mount	C-Mount
Weight (with coaxial type)	166g	131g	106g
Weight (straight type)	160g	128g	103g

*1 : Theoretical resolution calculated with a wavelength of 550nm *2 : Value calculated with a permissible circle of confusion of 40μm

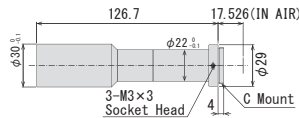


WD-110mm

TEC-M10110MPC / TEC-M10110MP

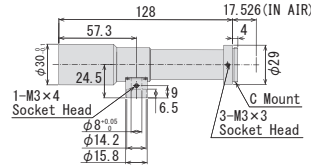


TEC-M10110MPC

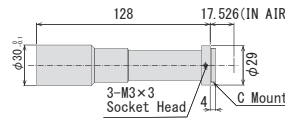


TEC-M10110MP

TEC-M15110MPC / TEC-M15110MP

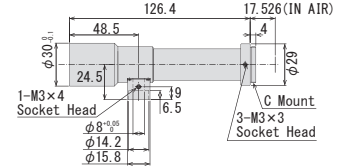


TEC-M15110MPC

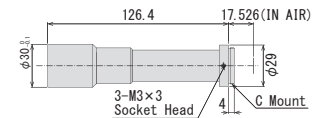


TEC-M15110MP

TEC-M20110MPC / TEC-M20110MP



TEC-M20110MPC



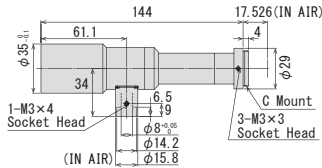
TEC-M20110MP

Model (with coaxial type)	TEC-M10110MPC	TEC-M15110MPC	TEC-M20110MPC
Model (straight type)	TEC-M10110MP	TEC-M15110MP	TEC-M20110MP
Format	8.8mm × 6.6m (φ 11.0mm)	8.8mm × 6.6m (φ 11.0mm)	8.8mm × 6.6m (φ 11.0mm)
Magnification	1.0x	1.5x	2.0x
Working Distance	111.5mm	110.7mm	110.9mm
Resolving Power *1	6.9μm	5.2μm	4.5μm
Depth of Field *2	0.82mm	0.42mm	0.27mm
NA	0.049	0.064	0.075
Effective F-number	10.1	11.5	13.0
TV Distortion	-0.003%	0.031%	-0.019%

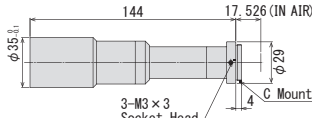
Mount	C-Mount	C-Mount	C-Mount
Weight (with coaxial type)	108g	110g	115g
Weight (straight type)	105g	108g	113g

WD-110mm

TEC-M30110MPC / TEC-M30110MP

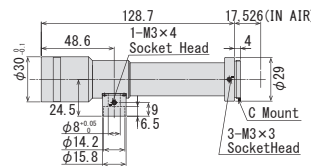


TEC-M30110MPC

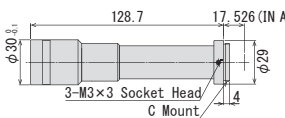


TEC-M30110MP

TEC-M40110MPC / TEC-M40110MP

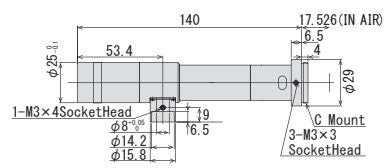


TEC-M40110MPC

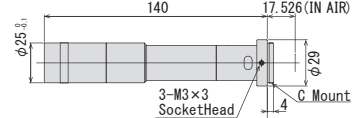


TEC-M40110MP

TEC-M60110MPC / TEC-M60110MP



TEC-M60110MPC



TEC-M60110MP

Model (with coaxial type)	TEC-M30110MPC	TEC-M40110MPC	TEC-M60110MPC
Model (straight type)	TEC-M30110MP	TEC-M40110MP	TEC-M60110MP
Format	2/3" φ12.8mm	8.8mm × 6.6m (φ 11.0mm)	2/3" φ12.8mm
Magnification	3.0x	4.0x	6.0x
Working Distance	111.4mm	110.5mm	110mm
Resolving Power *1	3.6μm	3.7μm	4.4μm
Depth of Field *2	0.14mm	0.11mm	0.09mm
NA	0.094	0.091	0.076
Effective F-number	16.0	21.9	39.6
TV Distortion	-0.012%	-0.004%	-0.015%

Mount	C-Mount	C-Mount	C-Mount
Weight (with coaxial type)	166g	121g	103g
Weight (straight type)	160g	120g	101g

*1 : Theoretical resolution calculated with a wavelength of 550nm *2 : Value calculated with a permissible circle of confusion of 40μm

NEW

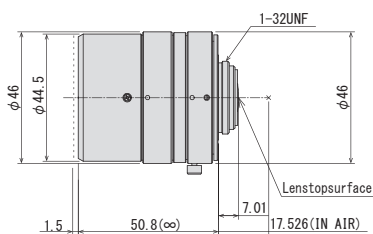
MPYIR Series

1.1" IR CORRECTIVE 12 MEGAPIXEL LENS for ITS

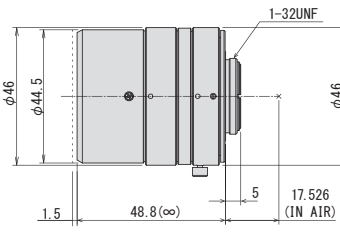


Model No.	Format	Focal Length	F No.	IRIS	Working Distance	Weight
V2518FIC-MPYIR	1.1"	25mm	F1.8 - F16C	Manual	1m - Inf.	158g
V3518FIC-MPYIR		35mm			2m - Inf.	153g
V5020FIC-MPYIR		50mm			3m - Inf.	151g
VG2518KC-MPYIR		25mm	F1.8 - F16C	P-IRIS	1m - Inf.	127g
VG3518KC-MPYIR		35mm			2m - Inf.	123g
VG5020KC-MPYIR		50mm			3m - Inf.	121g

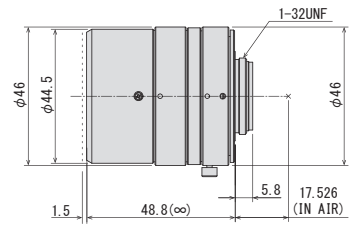
V2518FIC-MPYIR



V3518FIC-MPYIR



V5020FIC-MPYIR

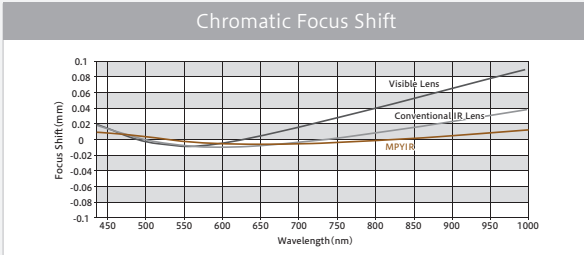
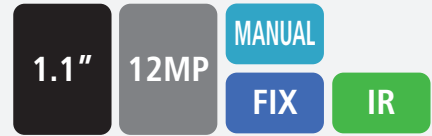


Focal Length	25mm					35mm					50mm				
Max. Aperture Ratio	1:1.8					1:1.8					1:2.0				
Max. Image Format	14.2mm × 10.4mm (φ 17.6mm)					14.2mm × 10.4mm (φ 17.6mm)					14.2mm × 10.4mm (φ 17.6mm)				
Operation Range	Iris	F1.8 - F16C				Iris	F1.8 - F16C				Iris	F2.0 - F16C			
	Focus	1m - Inf.				Focus	2m - Inf.				Focus	3m - Inf.			
Control	Iris	Manual				Iris	Manual				Iris	Manual			
	Focus	Manual				Focus	Manual				Focus	Manual			
Angle of View	D	38.8°	35.6°	24.9°		27.4°	25.1°	17.4°		19.4°	17.7°	12.2°			
	H	1.1" 31.8°	1" 28.8°	2/3" 20.0°		1.1" 22.3°	1" 20.2°	2/3" 14.0°		1.1" 15.7°	1" 14.2°	2/3" 9.8°			
	V	23.6°	21.8°	15.1°		16.5°	15.2°	10.5°		11.6°	10.7°	7.4°			
Operating Temperature	-10°C ~ +50°C					-10°C ~ +50°C					-10°C ~ +50°C				

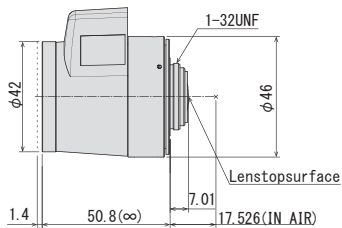
Back Focal Length	10.6mm	14.2mm	14.2mm
Flange Back Length	17.526mm	17.526mm	17.526mm
Mount	C-Mount	C-Mount	C-Mount
Filter Size	M40.5 P=0.5mm	M40.5 P=0.5mm	M40.5 P=0.5mm
Dimensions	φ46mm × 50.8mm	φ46mm × 48.8mm	φ46mm × 48.8mm
Weight	158g	153g	151g

1.1" IR CORRECTIVE 12 MEGAPIXEL LENS for ITS

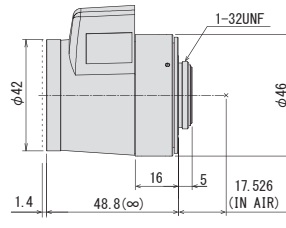
- Suitable for 1.1" 12MP sensor, same size as conventional products
- Usable lineup for ANPR, 25mm/35mm/50mm
- Manual iris and P-iris available for each model
- No focus shift from visible light to NIR
- High spectral transmittance between visible light to NIR



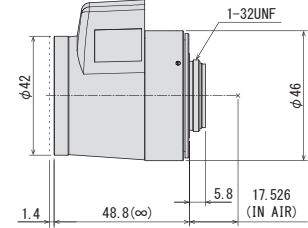
VG2518KC-MPYIR



VG3518KC-MPYIR



VG5020KC-MPYIR



Focal Length	25mm					35mm					50mm								
Max. Aperture Ratio	1:1.8					1:1.8					1:2.0								
Max. Image Format	14.2mm × 10.4mm (φ 17.6mm)					14.2mm × 10.4mm (φ 17.6mm)					14.2mm × 10.4mm (φ 17.6mm)								
Operation Range	Iris	F1.8 - F16C					F1.8 - F16C					F2.0 - F16C							
	Focus	1m - Inf.					2m - Inf.					3m - Inf.							
Control	Iris	Stepping Motor					Stepping Motor					Stepping Motor							
	Focus	Manual					Manual					Manual							
Angle of View	D	1.1"	38.8°	1"	35.6°	2/3"	24.9°	1.1"	27.4°	1"	25.1°	2/3"	17.4°	1.1"	19.4°	1"	17.7°	2/3"	12.2°
	H	1.1"	31.8°	1"	28.8°	2/3"	20.0°	1.1"	22.3°	1"	20.2°	2/3"	14.0°	1.1"	15.7°	1"	14.2°	2/3"	9.8°
	V	1.1"	23.6°	1"	21.8°	2/3"	15.1°	1.1"	16.5°	1"	15.2°	2/3"	10.5°	1.1"	11.6°	1"	10.7°	2/3"	7.4°
Operating Temperature	-10°C ~ +50°C					-10°C ~ +50°C					-10°C ~ +50°C								

Back Focal Length	10.6mm					14.2mm					14.2mm				
Flange Back Length	17.526mm					17.526mm					17.526mm				
Mount	C-Mount					C-Mount					C-Mount				
Filter Size	M40.5 P=0.5mm					M40.5 P=0.5mm					M40.5 P=0.5mm				
Dimensions	φ42mm × 57mm × 50.8mm					φ42mm × 57mm × 48.8mm					φ42mm × 57mm × 48.8mm				
Weight	127g					123g					121g				

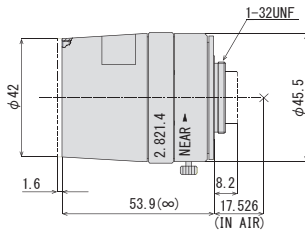


MPIR Series

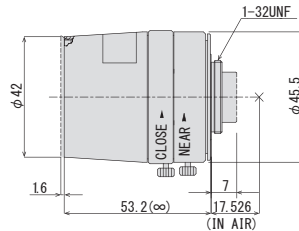
2/3" IR CORRECTIVE 5 MEGA PIXEL LENS for ITS

Model No.	Format	Focal Length	F No.	IRIS	Working Distance	Weight
M2514FIC-MPIR	2/3"	25mm	F1.4 - F16C	Manual	1m - Inf.	154g
M3518FIC-MPIR		35mm	F1.8 - F16C		1m - Inf.	149g
M5020FIC-MPIR		50mm	F2.0 - F16C		2m - Inf.	155g
MG2514KC-MPIR		25mm	F1.4 - F16C	P-IRIS	1m - Inf.	128g
MG3518KC-MPIR		35mm	F1.8 - F16C		1m - Inf.	123g
MG5020KC-MPIR		50mm	F2.0 - F16C		2m - Inf.	129g

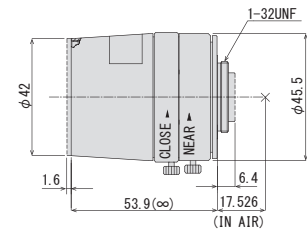
M2514FIC-MPIR



M3518FIC-MPIR



M5020FIC-MPIR

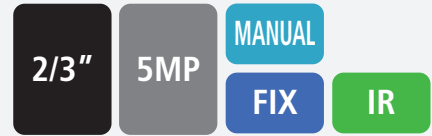


Focal Length	25mm					35mm					50mm										
Max. Aperture Ratio	1:1.4					1:1.8					1:2.0										
Max. Image Format	11.3mm × 6.0mm (φ 12.8mm)					11.3mm × 6.0mm (φ 12.8mm)					11.3mm × 6.0mm (φ 12.8mm)										
Operation Range	Iris	F1.4 - F16C				Iris	F1.8 - F16C				Iris	F2.0 - F16C									
	Focus	1m - Inf.				Focus	1m - Inf.				Focus	2m - Inf.									
Control	Iris	Manual				Iris	Manual				Iris	Manual									
	Focus	Manual				Focus	Manual				Focus	Manual									
Angle of View	D	24.9°		18.2°		13.7°		D	17.4°		12.7°		9.5°		D	12.2°		8.9°		6.7°	
	H	2/3"	20.0°	1/2"	14.6°	1/3"	11.0°	2/3"	13.9°	1/2"	10.2°	1/3"	7.6°	2/3"	9.8°	1/2"	7.1°	1/3"	5.3°		
	V	15.1°		11.0°		8.2°		10.5°		7.6°		5.7°		7.3°		5.3°		4.0°			
CMV2000 11.264 × 5.984 (φ 12.75)	D	28.6°				20.0°				14.1°											
	H	25.4°				17.8°				12.5°											
	V	13.7°				9.5°				6.7°											
Operating Temperature	-10°C ~ +50°C					-10°C ~ +50°C					-10°C ~ +50°C										

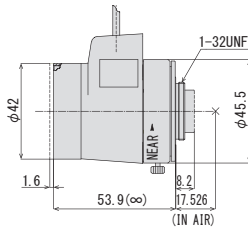
Back Focal Length	10.8mm	14.3mm	14.8mm
Flange Back Length	17.526mm	17.526mm	17.526mm
Mount	C-Mount	C-Mount	C-Mount
Filter Size	M40.5 P=0.5mm	M40.5 P=0.5mm	M40.5 P=0.5mm
Dimensions	φ46.5mm × 53.9mm	φ46.5mm × 53.2mm	φ46.5mm × 53.9mm
Weight	154g	149g	155g

2/3" IR CORRECTIVE 5 MEGAPIXEL LENS for ITS

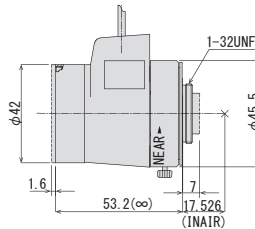
- Suitable for 2/3" 5MP sensors
- Compact design
- Usable lineup for ANPR, 25mm, 35mm, and 50mm
- Each model available in manual iris and P-iris
- Minimizes focus shift between visible light to NIR
- High spectral transmittance between visible light to NIR



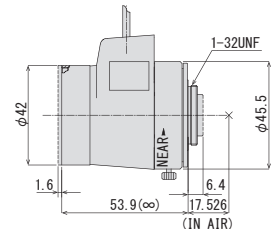
MG2514KC-MPIR



MG3518KC-MPIR



MG5020KC-MPIR



Focal Length	25mm					35mm					50mm								
Max. Aperture Ratio	1:1.4					1:1.8					1:2.0								
Max. Image Format	11.3mm × 6.0mm (φ 12.8mm)																		
Operation Range	Iris	F1.4 - F16C					F1.8 - F16C					F2.0 - F16C							
	Focus	1m - Inf.					1m - Inf.					2m - Inf.							
Control	Iris	Stepping Motor																	
	Focus	Manual																	
Angle of View	D	24.9°		18.2°		13.7°		17.4°		12.7°		9.5°		12.2°		8.9°		6.7°	
	H	2/3"	20.0°	1/2"	14.6°	1/3"	11.0°	2/3"	13.9°	1/2"	10.2°	1/3"	7.6°	2/3"	9.8°	1/2"	7.1°	1/3"	5.3°
	V		15.1°		11.0°		8.2°		10.5°		7.6°		5.7°		7.3°		5.3°		4.0°
CMV2000 11.264 × 5.984 (φ 12.75)	D	28.6°					20.0°					14.1°							
	H	25.4°					17.8°					12.5°							
	V	13.7°					9.5°					6.7°							
Operating Temperature	-10°C ~ +50°C																		

Back Focal Length	10.8mm	14.3mm	14.8mm
Flange Back Length	17.526mm	17.526mm	17.526mm
Mount	C-Mount	C-Mount	C-Mount
Filter Size	M40.5 P=0.5mm	M40.5 P=0.5mm	M40.5 P=0.5mm
Dimensions	φ42mm × 58.6mm × 53.9mm	φ42mm × 56.8mm × 53.2mm	φ42mm × 56.8mm × 53.9mm
Weight	128g	123g	129g

1 MEGAPIXEL BOARD LENS

1/2" 1MP FIX BOARD



H0320KP

H0624KP

3 MEGAPIXEL ULTRA-LOW DISTORTION BOARD LENS

1/1.8" 3MP FIX BOARD



E1220KV

E2520KV

Model Name	H0320KP		H0624KP		H0924KP		H1620KP		H2520KP		E1220KV		E1620KV		E2520KV										
Format	1/2"		1/2"		1/2"		1/2"		1/2"		1/1.8"		1/1.8"		1/1.8"										
Mount	M12																								
Pitch	0.5																								
Focal Length	3mm		6mm		9mm		16mm		25mm		12.0mm		16.0mm		25.0mm										
Aperture	F2.0		F2.4		F2.4		F2.0		F2.0		F2.0		F2.0		F2.0										
Optical Distortion	-37.5%		-9.0%		-1.6%		0.4%		1.0%		0.04%		-0.07%		0.02%										
Angle of view at Inf.	D	1/2"	125.3°	1/2"	72.5°	1/2"	48.6°	1/2"	27.9°	1/2"	18.0°	1/1.8"	39.5°	1/1.8"	30.0°	1/1.8"	19.5°								
			H		104.3°		H		59.1°		H		39.6°		H		22.6°	H	14.5°	H	32.1°	H	24.3°	H	15.7°
			V		80.5°		V		45.0°		V		30.1°		V		17.0°	V	10.9°	V	24.4°	V	18.4°	V	11.9°
	D	1/3"	98.6°	1/3"	55.6°	1/3"	37.3°	1/3"	21.2°	1/3"	13.6°	1/2"	36.8°	1/2"	27.9°	1/2"	18.1°								
			H		80.5°		H		45.0°		H		30.1°		H		17.0°	H	10.9°	H	29.8°	H	22.6°	H	14.6°
			V		61.3°		V		34.0°		V		22.7°		V		12.8°	V	8.2°	V	22.6°	V	17.0°	V	11.0°
	D	1/4"	75.8°	1/4"	42.3°	1/4"	28.3°	1/4"	16.0°	1/4"	10.3°	1/3"	28.1°	1/3"	21.2°	1/3"	13.7°								
			H		61.3°		H		34.0°		H		22.7°		H		12.8°	H	8.2°	H	22.6°	H	17.0°	H	11.0°
			V		46.3°		V		25.6°		V		17.1°		V		9.6°	V	6.2°	V	17.1°	V	12.8°	V	8.2°

*Please contact us for lead-time as it is a made-to-order product.

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4K FISHEYE BOARD LENS

1/1.7" 4K IR FIX FISHEYE



E1628KRY

E1222KRY

5 MEGAPIXEL FISHEYE BOARD LENS

1/2.5" 5MP IR FIX FISHEYE



L1028KRW

L1028KDRW

Model Name	E1628KRY		E1222KRY		E1628KF3RY*		E1222KF3RY*		E2328KRY		L1028KRW		L1028KDRW									
Format	1/1.7"		1/1.7"		1/1.7"		1/1.7"		1/1.8"		1/2.5"		1/2.5"									
Mount	M12																					
Pitch	0.5																					
Focal Length	1.6mm		1.2mm		1.6mm		1.2mm		2.3mm		1.05mm		1.05mm									
Aperture	F2.8		F2.2		F2.8		F2.2		F2.8		F2.8		F2.8									
Angle of view at Inf.	D	1/1.7"	190.0°	1/1.7"	185.0°	1/1.7"	190.0°	1/1.7"	185.0°	1/1.8"	190.0°	1/2.5"	180.0°	1/2.5"	180.0°							
			H		108.6°		H		108.6°		H		108.6°		H	108.6°	H	108.6°				
			V		108.6°		V		108.6°		V		108.6°		V	108.6°	V	108.6°				
	D	1/3"	190.0°	1/3"	185.0°	1/3"	190.0°	1/3"	185.0°	1/2"	190.0°	1/3"	180.0°	1/3"	180.0°							
			H		168.2°		H		171.5°		H		168.2°		H	171.5°	H	163.2°	H	163.2°		
			V		125.5°		V		139.5°		V		125.5°		V	139.5°	V	119.5°	V	163.2°	V	163.2°
	D	1/4"	157.3°	1/4"	164.2°	1/4"	157.3°	1/4"	164.2°	1/3"	149.2°	1/4"	180.0°	1/4"	180.0°							
			H		125.5°		H		139.5°		H		125.5°		H	139.5°	H	119.5°	H	163.2°	H	163.2°
			V		94.2°		V		110.3°		V		94.2°		V	110.3°	V	89.6°	V	130.2°	V	130.2°
	IRCF					○		○						○								

*Please note E1628KF3RY and E1222KF3RY are produced to order.
*Please contact us for lead-time as it is a made-to-order product.

*Please contact us for lead-time as it is a made-to-order product.

EX1.5C



EX2C



VM100



Description	1.5X Extender for C-mount	2X Extender for C-mount	Extension Tube Kit 40, 20, 10, 5, 1, 0.5mm
Application	Attached between lens and camera - Makes focal length 1.5X	Attached between lens and camera - Makes focal length 2X	Attached between lens and camera - Reduces minimum focusing distance

VM400



M55-0.75X



M55-2.0X



Description	5mm Adapter Ring	Rear converter 0.75X (Designed for TEC-M55)	Rear converter 2.0X (Designed for TEC-M55)
Application	Attached between lens and camera - Adapts C-mount lens to CS-mount camera	Makes focal length 0.75X	Makes focal length 2.0X

VM0811



VM0810



ZM0810



Description	Filter holder for V0828-MPY2 (M72 P=0.75)	Filter holder for V0828-MPY2 (M67 P=0.75)	Filter holder for V0826-MPZ (M82 P=0.75)
Application	Attached between filter and lens for 1.1" sensor camera	Attached between filter and lens for 1" sensor camera	Attached between filter and lens for 1" sensor camera

VM0918



TM1243



TM1643



Description	Filter holder for EG6Z0915 series (M67 P=0.75)	Filter holder for F1228-MPT (M72 P=0.75)	Filter holder for F1628-MPT (M52 P=0.75)
Application	Attached between filter and lens	Attached between filter and lens for 1.4" sensor camera	Attached between filter and lens for 1.4" sensor camera



4K/5MP Varifocal Lens

- Ultra-high-resolution 5MP and 8MP (4K) models
- High performance from center to the edge, ideal for multi-ROI
- Day/Night design, minimizing focus shift at NIR
- Various focal lengths from wide 2.8mm to telephoto 50mm
- F1.5 flat F-stop from wide to telephoto (EG6Z0915)

Model Name	Format	Mount	Focal Length	F No.	Type	M.O.D	Front Filter Thread	Dimensions (mm)			Weight
								φ	H	D	
E3Z3915CS-MPWIR	1/1.8"	CS	3.9mm - 10mm	F1.5 - F16C	Manual	0.8m	-	43	-	59	69g
EG3Z3915FCS-MPWIR	1/1.8"	CS	3.9mm - 10mm	F1.5 - F360C	DC	0.8m	-	40	49	59	72g
EG3Z3915KCS-MPWIR	1/1.8"	CS	3.9mm - 10mm	F1.5 - F16C	P-iris	0.8m	-	40	49	59	71g
EG3Z3915TCS-MPWIR	1/1.8"	CS	3.9mm - 10mm	F1.5 - F16C	i-CS	0.8m	-	54	67	59	109g
EG6Z0915FCS-MPWIR	1/1.8"	CS	9mm - 50mm	F1.5 - F360C	DC	3.0m	M67 P=0.75	68	83	104	279g
EG6Z0915KCS-MPWIR	1/1.8"	CS	9mm - 50mm	F1.5 - F16C	P-iris	3.0m	M67 P=0.75	68	83	104	278g
EG6Z0915TCS-MPWIR	1/1.8"	CS	9mm - 50mm	F1.5 - F16C	i-CS	3.0m	-	77	84	104	291g
A3Z2812CS-MPWIR	1/2.7"	CS	2.8mm - 8.5mm	F1.2 - F16C	Manual	0.5m	-	43	-	59	64g
AG3Z2812FCS-MPWIR	1/2.7"	CS	2.8mm - 8.5mm	F1.2 - F360C	DC	0.5m	-	40	49	59	67g
AG3Z2812KCS-MPWIR	1/2.7"	CS	2.8mm - 8.5mm	F1.2 - F16C	P-iris	0.5m	-	40	49	59	66g
AG3Z2812TCS-MPWIR	1/2.7"	CS	2.8mm - 8.5mm	F1.2 - F16C	i-CS	0.5m	-	55	68	59	103g



3MP Varifocal Lens

- 1/2.7" 3MP
- Compact design
- Various focal lengths, from wide to telephoto
- Each model available in manual iris, DC iris, and P-iris

Model Name	Format	Mount	Focal Length	F No.	Type	M.O.D	Front Filter Thread	Dimensions (mm)			Weight
								φ	H	D	
A4Z2812CS-MPIR	1/2.7"	CS	2.8mm - 10mm	F1.2 - F16C	Manual	0.5m	-	43.6	-	59	63g
AG4Z2812FCS-MPIR	1/2.7"	CS	2.8mm - 10mm	F1.2 - F360C	DC	0.5m	-	40	49	59	66g
AG4Z2812KCS-MPIR	1/2.7"	CS	2.8mm - 10mm	F1.2 - F16C	P-iris	0.5m	-	40	49	59	65g
A6Z8516CS-MP	1/2.7"	CS	8.5mm - 50mm	F1.6 - F16C	Manual	1.0m	M40.5 P=0.5mm	49	-	58	77g
AG6Z8516FCS-MP	1/2.7"	CS	8.5mm - 50mm	F1.6 - F360C	DC	1.0m	M40.5 P=0.5mm	46	60	58	80g
AG6Z8516KCS-MP	1/2.7"	CS	8.5mm - 50mm	F1.6 - F16C	P-iris	1.0m	M40.5 P=0.5mm	46	60	58	78g
A4Z1214CS-MPIR	1/2.7"	CS	12.5mm - 50mm	F1.4 - F16C	Manual	1.0m	M40.5 P=0.5mm	49	-	58	80g
AG4Z1214FCS-MPIR	1/2.7"	CS	12.5mm - 50mm	F1.4 - F360C	DC	1.0m	M40.5 P=0.5mm	46	59.3	58	83g
AG4Z1214KCS-MPIR	1/2.7"	CS	12.5mm - 50mm	F1.4 - F16C	P-iris	1.0m	M40.5 P=0.5mm	40	49	59	81g



VISWIR Zoom

- Dedicated design for next generation Visible+SWIR image sensor (IMX990/IMX991)
 - Special optical design for 400-1700nm, SWIR band
 - Reflex zoom for super-telephoto spec
 - Adjustable back-focus mechanism, Compact & Light weight body.
- ※ Please contact us for a lead-time as it is a made-to-order product

Model Name	Format	Mount	Focal Length	F No.	Type	M.O.D	Front Filter Thread	Dimensions (mm)			Weight
								φ	H	D	
E3Z5247P-MPSW	1/1.8"	C	520mm-1300mm	F4.7	Fixed	25m	-	130	134	276	2500g



HD Zoom Lens

- 2/3", 1/1.8" available for full HD megapixel sensors
 - Preset function and filter thread available
 - Suitable for surveillance applications
- ※ Please contact us for a lead time as it is a made-to-order product

Model Name	Format	Mount	Focal Length	F No.	Type	M.O.D	Front Filter Thread	Dimensions (mm)			Weight
								φ	H	D	
E24Z1018DC-MP	1/1.8"	C	10mm - 240mm	F1.8 - F500C	DC	4.0m	M77 P=1.0mm	101	102	198	2060g
E24Z1018PDC-MPIR	1/1.8"	C	10mm - 240mm	F1.8 - F500C	DC/Preset	4.0m	M77 P=1.0mm	101	102	204	2140g
M24Z1527MP-MP	2/3"	C	15mm - 360mm	F2.7 - F22C	3 Motor/Preset	5.0m	M77 P=1.0mm	101	102.4	221	2240g
M24Z1527PDC-MP	2/3"	C	15mm - 360mm	F2.7 - F500C	DC/Preset	5.0m	M77 P=1.0mm	101	102.4	221	2180g
M24Z2138PDC-MP	2/3"	C	21mm - 500mm	F3.8 - F500C	DC/Preset	5.0m	M77 P=1.0mm	101	102.4	237	2240g



Direct Mount Varifocal Lens

- Resolution up to 8MP supported
 - Various image format options available from 1/3" to 1/1.2"
 - Newly released compact varifocal lens for IMX485 (NSF2.3Z5915BHRW)
 - Newly released compact varifocal lens for IMX415 (TSF2.9Z2813BHRW)
- ※ Please contact us for a lead time as it is a made-to-order product.

1. Calculation of Working Distance (WD)

Distance from lens to object (WD) is calculated by putting the size of a camera's imaging device, focal length, and an object size into the following formula.

<Formula>
 $WD = H1 + y \times f / y'$

[Ex]
 When 2/3" camera with M2514-MP2 films an object whose vertical size is 120 mm.
 f : 25 mm
 H1 : 23.8mm
 y : 120mm
 y' : 6.6mm

Distance from lens to object=
 $WD = 23.8 + 120 \times 25 / 6.6 = 478.35\text{mm}$

2. Calculation of Focal Length

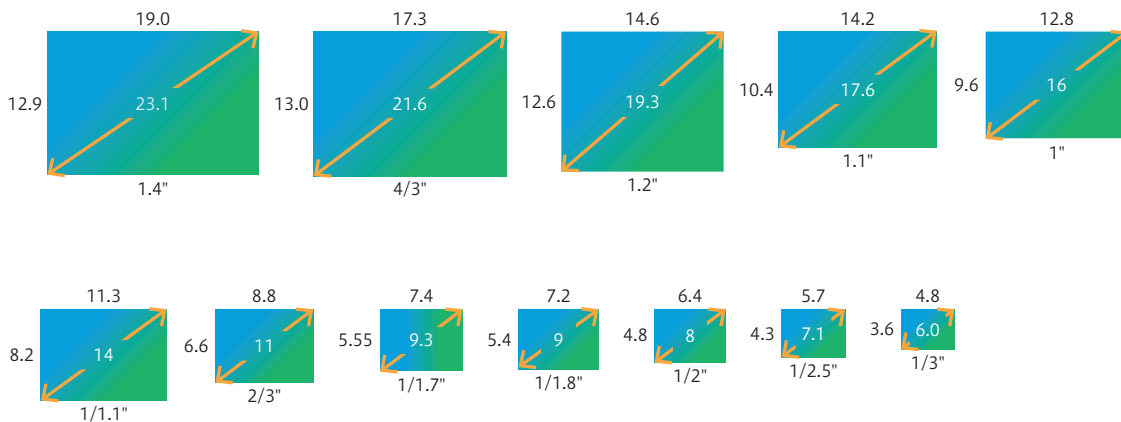
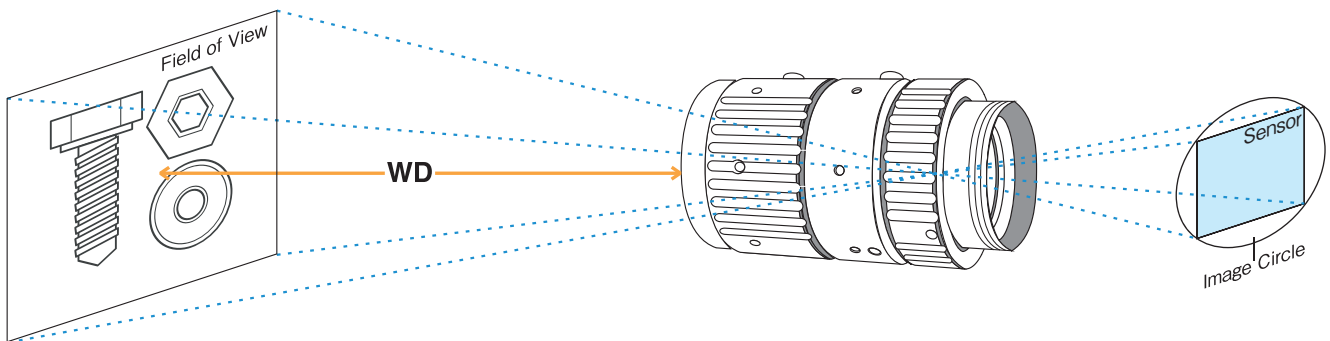
When choosing size of a camera's imaging device, the object size and WD are fixed, focal length can be calculated by the following formula. You can select appropriate lens from the focal length.

<Formula>
 $f = y' \times WD / y$

f = focal length of lens
 WD = distance from lens to object
 H1 : first principal point
 y : vertical size of object
 y' : vertical size of camera's imaging device

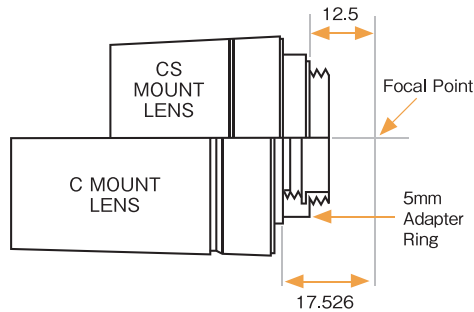
CAMERA FORMAT

The size of the camera's imaging device also affects the angle of view, with the smaller devices creating narrower angles of view when used on the same lens. The format of the lens, however, is irrelevant to the angle of view; it merely needs to project an image that will cover the device, e.g., the same format as the camera or larger. This also means that 1/3" cameras can utilize the entire range of lenses from 1/3" to 2/3", with a 1/3" 8mm lens giving the same angle as a 2/3" 8mm lens. The latter combination also provides increased resolution and picture quality as only the center of the lens is being utilized, where the optics can be ground more accurately.



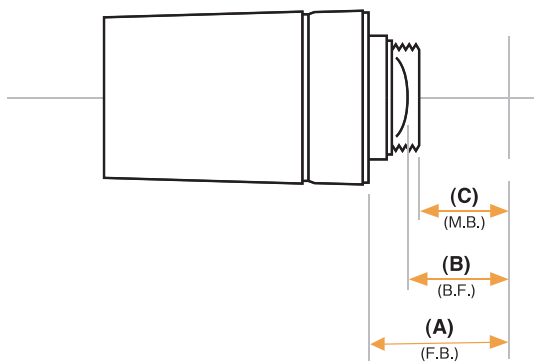
C OR CS MOUNT

Modern cameras and lenses are generally CS mount. With CS mount cameras, both types of lenses can be used, but the C mount lens requires a 5mm ring (VM400) to be fitted between the camera and lens to achieve a focused image. With C mount cameras, it is impossible to use CS mount lenses as it is not physically possible to get the lens close enough to the sensor to achieve a focused image.



	C mount lens	CS mount lens
C mount camera	○	×
CS mount camera	needs 5mm ring	○

FLANGE BACK, BACK FOCAL LENGTH, AND MECHANICAL BACK FOCAL LENGTH



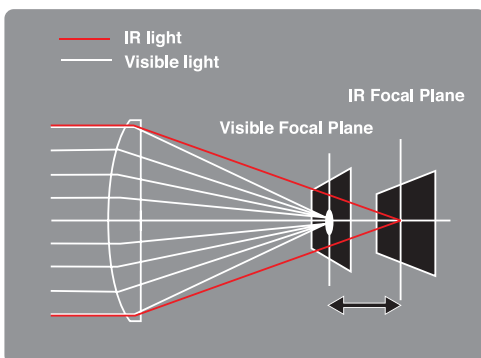
(A) Flange Back
Distance between the lens flange and focal plane

(B) Back Focal Length
Distance between the surface of the rear lens element and focal plane

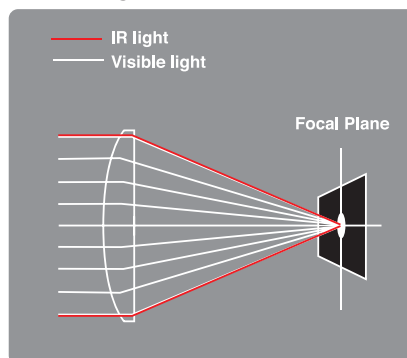
(C) Mechanical Back Focal Length
Distance between the surface of the lens frame and focal plane

MECHANISM AND ADVANTAGEOUS EFFECT OF IR LENS

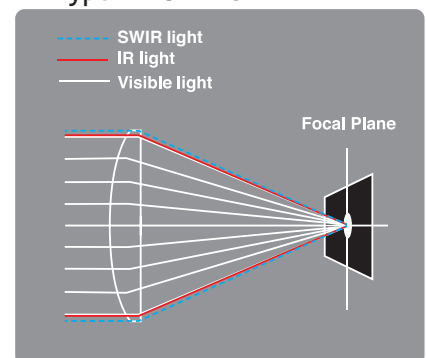
■ NON IR LENS



■ IR LENS



■ Hyper-APO LENS



Day/Night cameras typically operate in the near-infrared/infrared zones at night, making the image "out of focus" and unsuitable if used with a conventional lens. Computar has developed IR Lenses that utilize a unique optical glass material that minimizes light dispersion. As a result, refocusing is not required when used with infrared lighting. The lens is manufactured with a special ED glass (extra dispersion) which does not widely disperse light of different wavelengths and has a "special coating." This combination allows the lens to deliver perfect focus under normal and IR illumination by transmitting more light to the infrared region.

FIELD OF VIEW

TEC-V Series / TEC-M Series

TEC-V0345165MPY-WI

Field of View	
1.1"	41.1 × 30.1mm
1"	38.3 × 25.2mm
2/3"	25.5 × 19.1mm
1/1.8"	20.9 × 15.4mm
1/2"	18.6 × 13.9mm

TEC-V0565MPW

Field of View	
1"	25.6 × 19.2mm
2/3"	17.6 × 13.2mm
1/1.8"	14.4 × 10.8mm
1/2"	12.8 × 9.6mm

TEC-V1065MPW

Field of View	
1"	12.8 × 9.6mm
2/3"	8.8 × 6.6mm
1/1.8"	7.2 × 5.4mm
1/2"	6.4 × 4.8mm

TEC-V05110MPW

Field of View	
1"	25.6 × 19.2mm
2/3"	17.6 × 13.2mm
1/1.8"	14.4 × 10.8mm
1/2"	12.8 × 9.6mm

TEC-V10110MPW

Field of View	
1"	12.8 × 9.6mm
2/3"	8.8 × 6.6mm
1/1.8"	7.2 × 5.4mm
1/2"	6.4 × 4.8mm

**TEC-M0565MPC /
TEC-M0565MP**

Field of View	
2/3"	17.6 × 13.2mm
1/1.8"	14.35 × 10.64mm
1/2"	12.8 × 9.6mm
1/3"	9.6 × 7.2mm

**TEC-M0865MPC /
TEC-M0865MP**

Field of View	
2/3"	11 × 8.25mm
1/1.8"	8.97 × 6.65mm
1/2"	8 × 6mm
1/3"	6 × 4.5mm

**TEC-M1065MPC /
TEC-M1065MP**

Field of View	
2/3"	8.8 × 6.6mm
1/1.8"	7.18 × 5.32mm
1/2"	6.4 × 4.8mm
1/3"	4.8 × 3.6mm

**TEC-M2065MPC /
TEC-M2065MP**

Field of View	
2/3"	4.4 × 3.3mm
1/1.8"	3.59 × 2.66mm
1/2"	3.2 × 2.4mm
1/3"	2.4 × 1.8mm

**TEC-M4065MPC /
TEC-M4065MP**

Field of View	
2/3"	2.2 × 1.65mm
1/1.8"	1.79 × 1.33mm
1/2"	1.6 × 1.2mm
1/3"	1.2 × 0.9mm

**TEC-M6065MPC /
TEC-M6065MP**

Field of View	
2/3"	1.47 × 1.1mm
1/1.8"	1.2 × 0.89mm
1/2"	1.07 × 0.8mm
1/3"	0.8 × 0.6mm

**TEC-M03110MPC /
TEC-M03110MP**

Field of View	
2/3"	29.3 × 22mm
1/1.8"	23.9 × 17.7mm
1/2"	21.3 × 16mm
1/3"	16 × 12mm

**TEC-M05110MPC /
TEC-M05110MP**

Field of View	
2/3"	17.6 × 13.2mm
1/1.8"	14.35 × 10.64mm
1/2"	12.8 × 9.6mm
1/3"	9.6 × 7.2mm

**TEC-M08110MPC /
TEC-M08110MP**

Field of View	
2/3"	11 × 8.25mm
1/1.8"	8.97 × 6.65mm
1/2"	8 × 6mm
1/3"	6 × 4.5mm

**TEC-M10110MPC /
TEC-M10110MP**

Field of View	
2/3"	8.8 × 6.6mm
1/1.8"	7.18 × 5.32mm
1/2"	6.4 × 4.8mm
1/3"	4.8 × 3.6mm

**TEC-M15110MPC /
TEC-M15110MP**

Field of View	
2/3"	5.87 × 4.4mm
1/1.8"	4.79 × 3.55mm
1/2"	4.27 × 3.2mm
1/3"	3.2 × 2.4mm

**TEC-M20110MPC /
TEC-M20110MP**

Field of View	
2/3"	4.4 × 3.3mm
1/1.8"	3.59 × 2.66mm
1/2"	3.2 × 2.4mm
1/3"	2.4 × 1.8mm

**TEC-M30110MPC /
TEC-M30110MP**

Field of View	
2/3"	2.93 × 2.2mm
1/1.8"	2.39 × 1.77mm
1/2"	2.13 × 1.6mm
1/3"	1.6 × 1.2mm

**TEC-M40110MPC /
TEC-M40110MP**

Field of View	
2/3"	2.2 × 1.65mm
1/1.8"	1.79 × 1.33mm
1/2"	1.6 × 1.2mm
1/3"	1.2 × 0.9mm

**TEC-M60110MPC /
TEC-M60110MP**

Field of View	
2/3"	1.5 × 1.1mm
1/1.8"	1.2 × 0.9mm
1/2"	1.1 × 0.8mm
1/3"	0.8 × 0.6mm

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