

Tokina

Security Products

Machine Vision Lens





Mega-Pixel Lens
High Resolution Vari-Focal Lens
Standard Motorized Zoom Lens
IR Motorized Zoom Lens for Day/Night Camera
Auto-Focus Motorized Zoom Lens

Supplier of
total CCTV lens solution

Tokina

3Megapixel Machine Vision Lens for Full HD Camera

Available 8mm / 12mm / 16mm / 25mm / 35mm / 50mm



Application



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THE LARGEST INTEGRATED PTZ

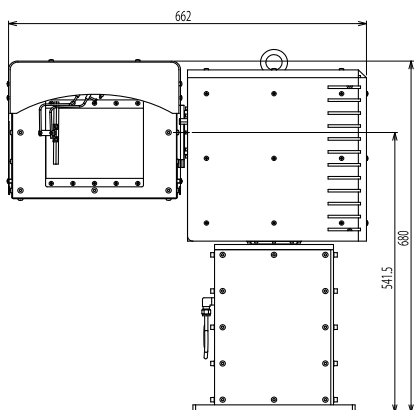
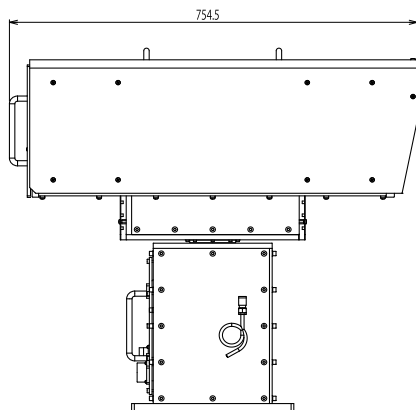
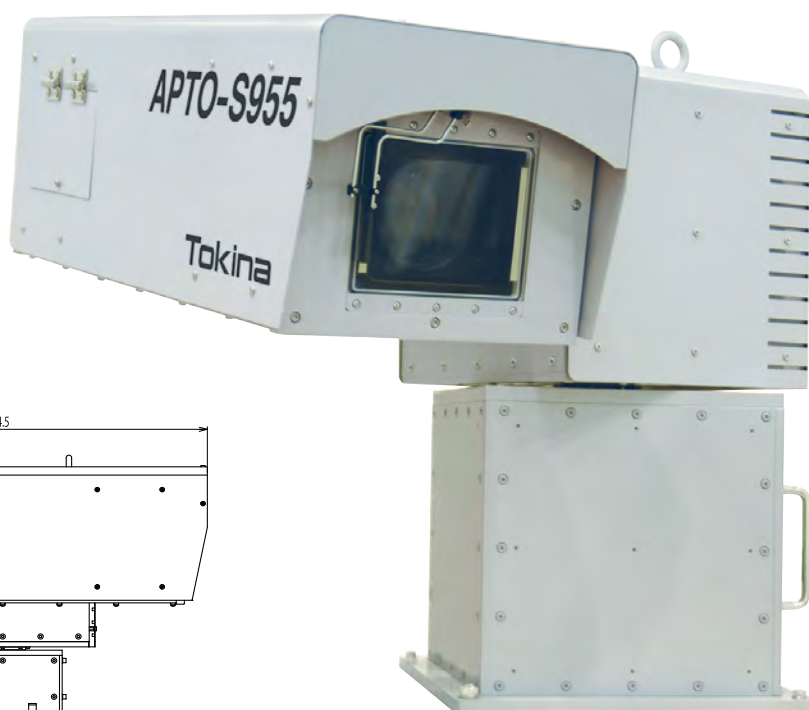
APTO-S955

High performance model under extreme environment
It is suitable for port and border surveillance.

INTEGRATED POSITIONING UNIT

Specification

Installation condition	Outdoor up right use only
Water proof	IP66
Temperature	-20~+50°C
Humidity	30~90%
External finish	Rust preventive coating
Power supply	AC100~240V 50Hz/60Hz
Weight	63Kg
Angle	pan 360° endless
	tilt +90° -90°
Speed	pan 0.05~180°/s
	tilt 0.05~180°/s
Reappearance accuracy	0.01~0.025°



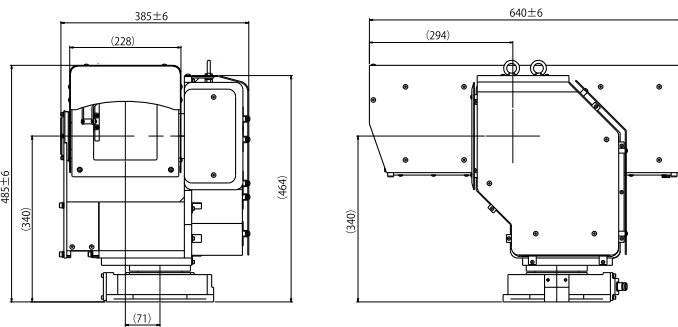
THE LARGEST INTEGRATED PTZ

APTO-S900

INTEGRATED POSITIONING UNIT

Specification

Installation condition	Outdoor up right use only	
Power consumption	170W	
Water proof	JIS C0920	
Temperature	-10~+50°C	
Wind damage resistance	Normal Operation	Up to 20m/s
	Capable	Up to 40m/s
	No damage	Up to 60m/s
Humidity	30~90%	
Power supply	AC100V 50Hz/60Hz	
Weight	40Kg	
Angle	pan	360° endless
	tilt	+90° -90°
Speed	pan	45°/s
	tilt	30°/s
Reappearance accuracy	+/-0.3°	
Preset position	Max. 255 points	

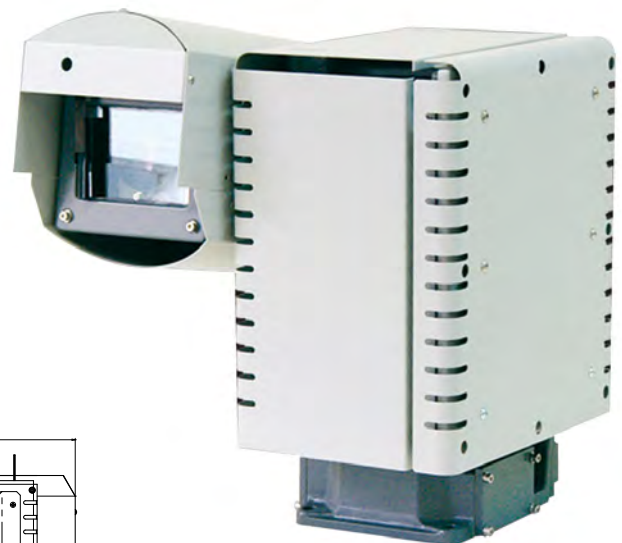
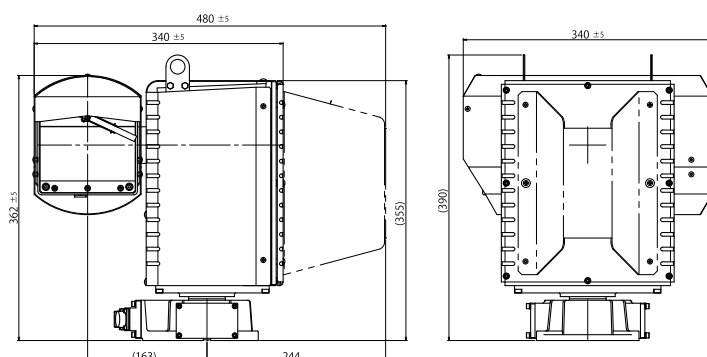


APTO-221

INTEGRATED POSITIONING UNIT

Specification

Installation condition	Outdoor up right use only	
Communication	RS-422 (RS-485)	
Water proof	JIS C0920	
Power consumption	190W	
Temperature	-10~+50°C	
Wind damage resistance	Normal Operation	Up to 20m/s
	Capable	Up to 40m/s
	No damage	Up to 60m/s
Humidity	30~90%	
Power supply	AC100V 50Hz/60Hz	
Weight	17Kg	
Angle	pan	360° endless
	tilt	+90° -90°
Speed	pan	180°/s
	tilt	90°/s
Reappearance accuracy	+/-0.15°	
Preset position	Max. 255 points	



DOME ENCLOSURE

DCH0-191C (CEILING)

DOME ENCLOSURE

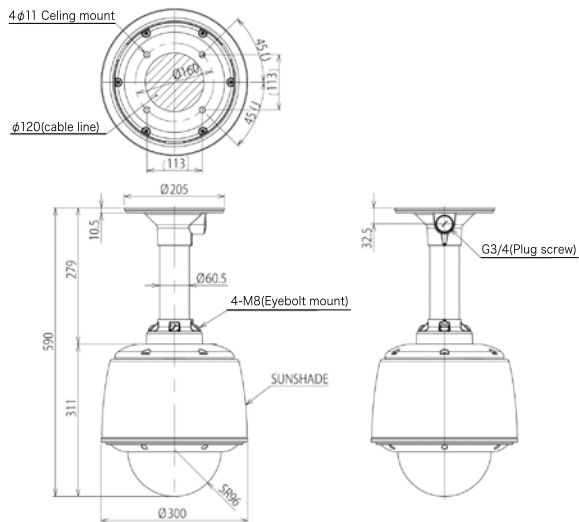
IP66

Main material: Aluminium ADC-12 (Die Casting), A6063 and AES

Ceiling Application with Management Bracket

Accessories available: Fan and Heater

Adapters for most of the high speed domes



DCH0-191W (WALL)

DOME ENCLOSURE

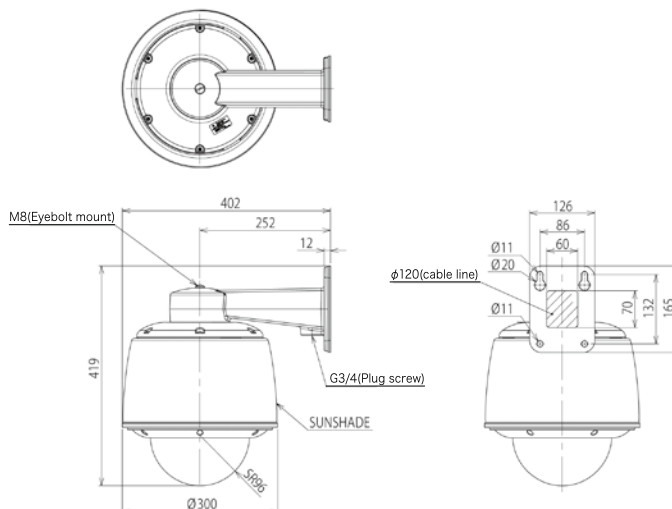
IP66

Main material: Aluminium ADC-12 (Die Casting) and AES

Wall Application with Management Bracket

Accessories available: Fan and Heater

Adapters for most of the high speed domes



CAMERA HOUSING

VCHO-15S

INDOOR / OUTDOOR HOUSING

IPx5

Main material: Aluminium ADC-12 (Die Casting) and A6063

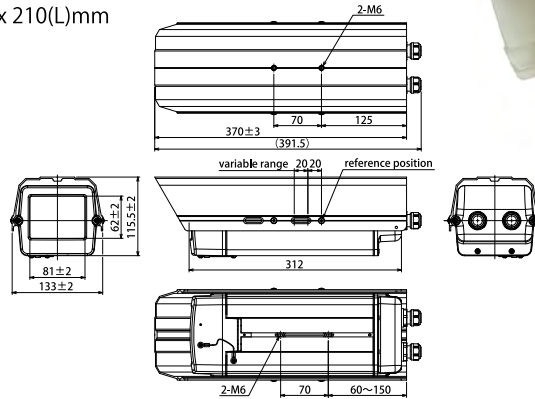
Dimensions: 133(W) x 115(H) x 370(L)mm

Internal usable area: 95(W) x 70(H) x 210(L)mm

Insulation Sheet

Weight: 2.4Kg

Option: Antirust coating



VCHO-15SDHF

INDOOR / OUTDOOR HOUSING

IPx5

Main material: Aluminium ADC-12 (Die Casting) and A6063

Dimensions: 133(W) x 115(H) x 400(L)mm

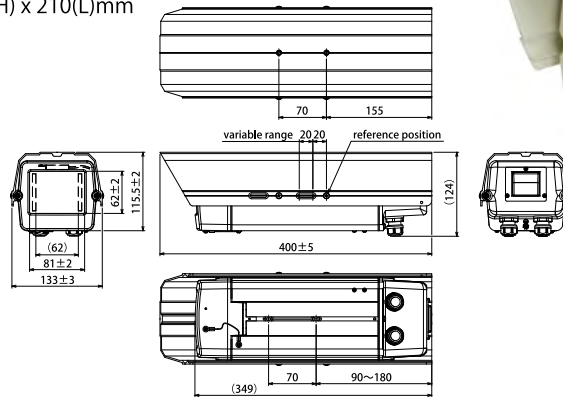
Internal usable area: 90(W) x 70(H) x 210(L)mm

Insulation Sheet

Weight: 3.0Kg

Fan, Heater

Option: Antirust coating



VCH-90

FRONT OPENING INDOOR HOUSING

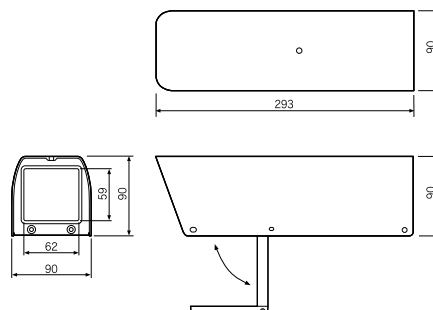
Ceiling / Wall

Main material: Aluminium ADC-12 (Die Casting) and A6063

Dimensions: 90(W) x 90(H) x 293(L)mm

Internal usable area: 73(W) x 68(H) x 230(L)mm

Weight: 0.7Kg



CAMERA HOUSING

VCHO-14

INDOOR / OUTDOOR HOUSING

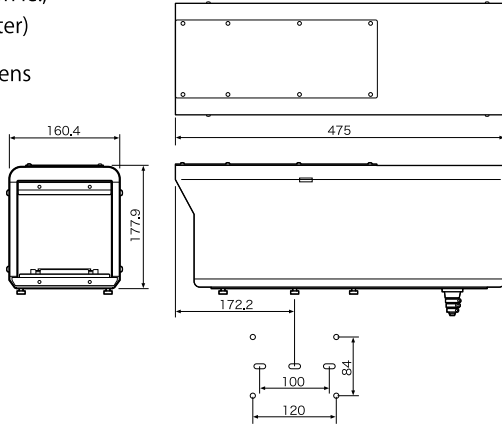
Main material: Aluminium and SPCC

Dimensions: 160(W) x 178.5(H) x 475(L) mm

Internal usable area: 114(W) x 110(H) x 365(L) mm

Weight: 3.7Kg (without option ie.,
Fan and Heater)

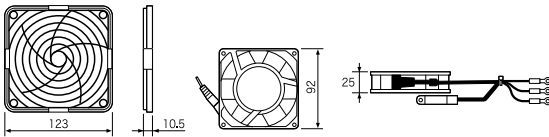
Compatible with 10X zoom lens



Accessories for VCHO-14

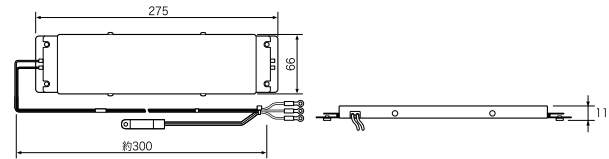
FAN-16 (I)

Fan Kit



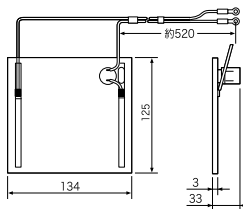
HTR-16 (I)

Heater Kit



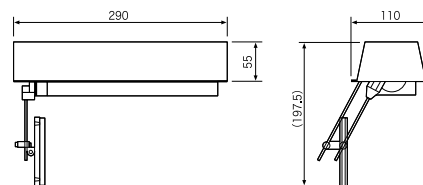
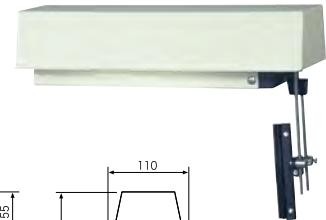
DEF-16 (I)

Defroster Kit



WTR-16 (I)

Wiper Kit

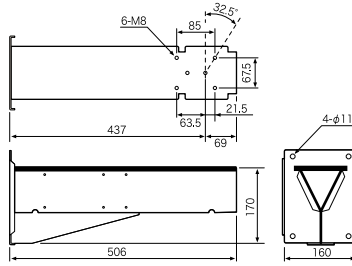


CAMERA BRACKET

WH-5

HEAVY DUTY WALL BRACKET INDOOR / OUTDOOR

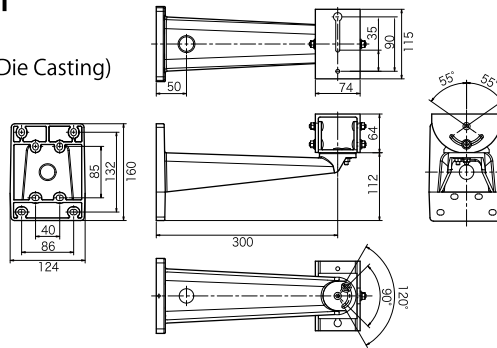
Main material: Steel SECC
Capability: 50kg
Weight: 4.8kg



WH-6N

HEAVY DUTY WALL BRACKET INDOOR / OUTDOOR

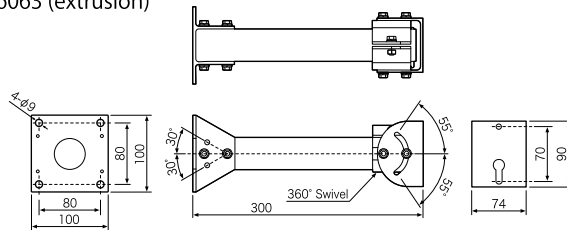
Main material: Aluminium ADC-12 (Die Casting)
and A6063
Capability: 15kg
Weight: 1.3kg



PTP-300

HEAVY DUTY CEILING BRACKET INDOOR / OUTDOOR

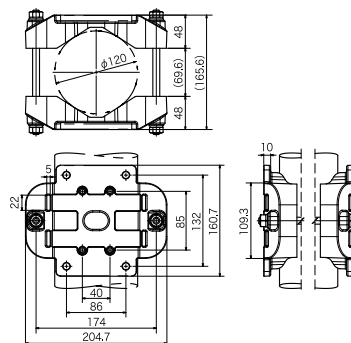
Main material: Aluminium A6063 (extrusion)
Capability: 10kg
Weight: 0.9kg



SFP-3

HEAVY DUTY ADAPTER FOR POLL ADJUSTMENT INDOOR / OUTDOOR

Main material: Aluminium ADC-12 (Die-Casting)
Capability: 15kg
Weight: 1.5kg

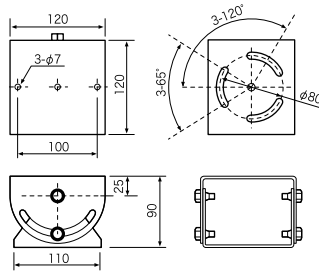


CAMERA BRACKET

HT-001

HEAVY DUTY CEILING BRACKET INDOOR / OUTDOOR

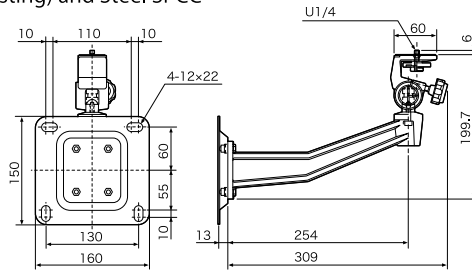
Main material: Steel SECC
Capability: 50kg
Weight: 1.2kg



WH-4PL

HEAVY DUTY WALL BRACKET INDOOR

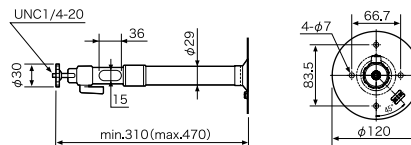
Main material: Aluminium ADC-12 (Die Casting) and Steel SPCC
Capability: 10kg
Weight: 0.85kg
Fully adjustable swivel head



WH-11

CEILING BRACKET INDOOR

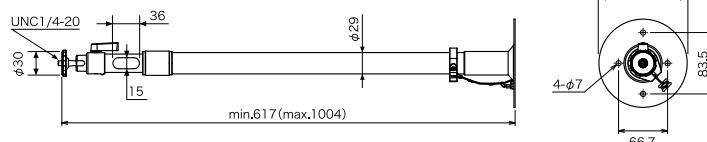
360° rotating
Internal cable channel
Main material: Steel SPCC and Aluminium A2017, A6063
Capability: 2kg
Weight: 0.40kg
One touch adjustable



WH-LS1

CEILING BRACKET INDOOR

360° rotating
Internal cable channel
Main material: Steel SPCC and Aluminium A2017, A6063
Capability: 2kg
Weight: 0.63kg
One touch adjustable

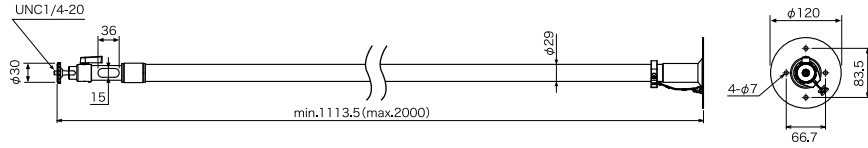


CAMERA BRACKET

WH-LS3

CEILING BRACKET INDOOR

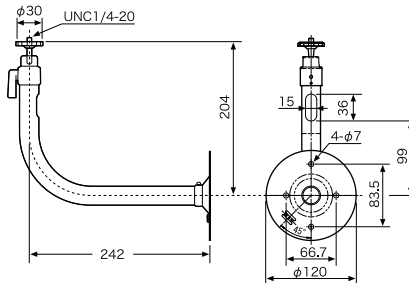
360° rotating
Internal cable channel
Main material: Steel SPCC and Aluminium A2017, A6063
Capability: 2kg
Weight: 0.96kg
One touch adjustable



WH-21

WALL / CEILING BRACKET INDOOR

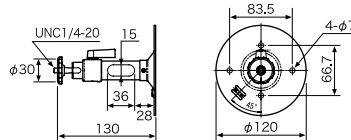
360° rotating
Internal cable channel
Main material: Steel SPCC and Aluminium A2017, A6063
Capability: 2kg
Weight: 0.34kg
One touch adjustable



WH-31

WALL / CEILING BRACKET INDOOR

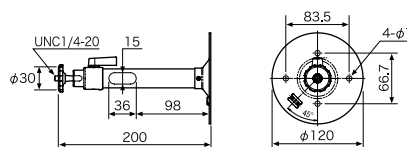
360° rotating
Internal cable channel
Main material: Steel SPCC and Aluminium A2017, A6063
Capability: 2kg
Weight: 0.26kg
One touch adjustable



WH-31L

WALL / CEILING BRACKET INDOOR

360° rotating
Internal cable channel
Main material: Steel SPCC and Aluminium A2017, A6063
Capability: 2kg
Weight: 0.28kg
One touch adjustable



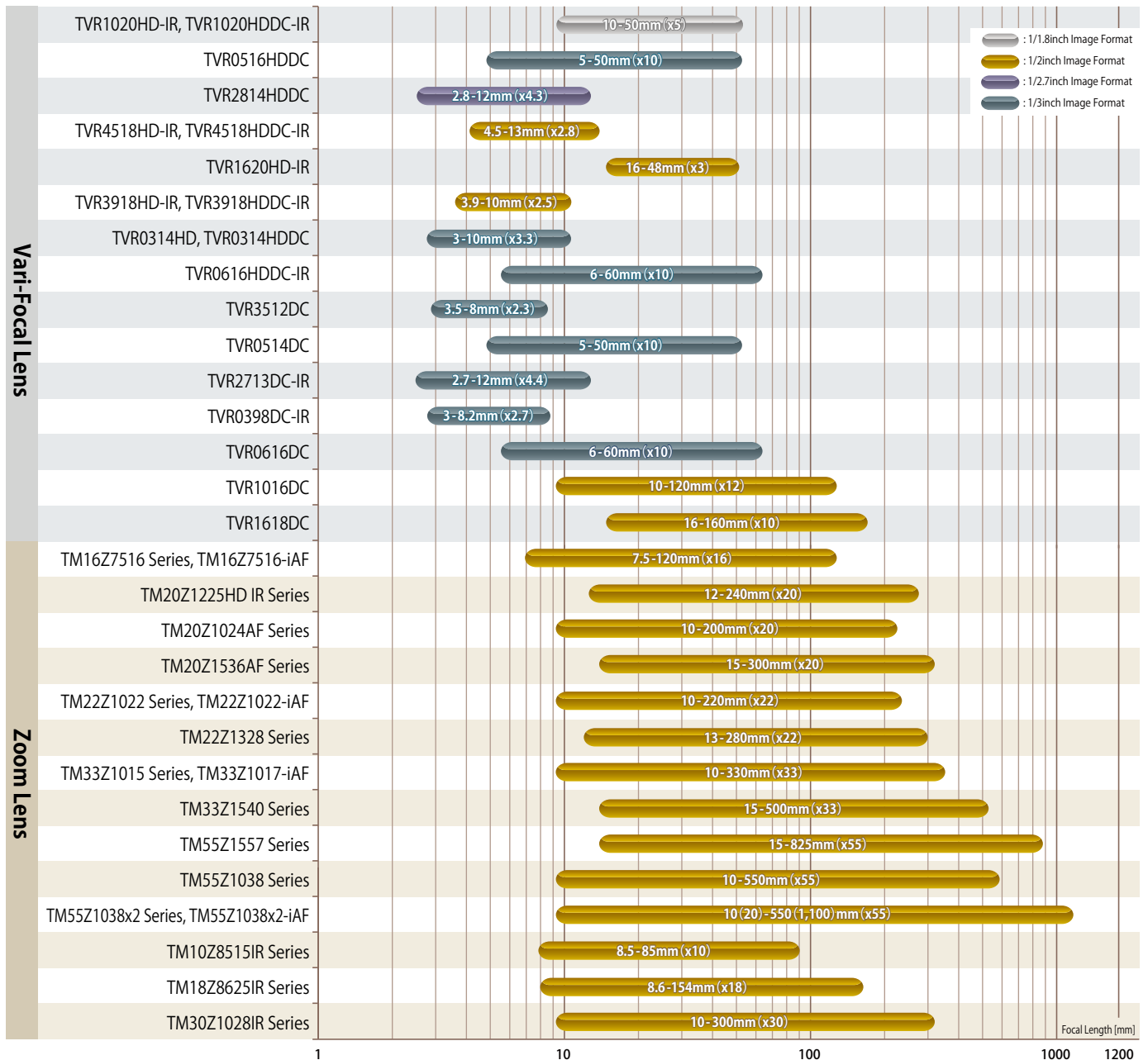
Full Lineup CCTV Lenses

Index & General Specifications

Image Format (")	Model Number	Focal Length (mm)	Aperture Range	Angle of View(°)	Dimensions (mm)	Filter	Weight (g)	Iris	Note	Page
■ IR (Day&Night) Mega-Pixel Vari-Focal Lens										
1/1.8	TVR1020HD-IR	10-50	2.0-78	40.53-8.49	φ50×57.0×87.5	—	250	Manual	3Mega IR	14
1/1.8	TVR1020HDDC-IR	10-50	2.0-360	40.53-8.49	φ50×57.0×87.5	—	260	DC	3Mega IR	14
1/3	TVR0516HDDC-IR	5-50	1.6-360	49.2-5.0	φ39×50×70.6	—	120	DC	2Mega IR	14
1/2.7	TVR2814HDDC-IR	2.8-12	1.4-360	106.1-33.3	φ31×44×45.1	—	90	DC	2Mega IR	14
1/2	TVR4518HD-IR	4.5-13	1.8-C	90.3-29.4	φ39×59	—	123	Manual	5Mega IR	14
1/2	TVR4518HDDC-IR	4.5-13	1.8-C	90.3-31.2	φ39×50.0×61	—	137	DC	5Mega IR	14
1/2	TVR1620HD-IR	16-48	2.0-C	25.8-8.8	φ40×73.5	—	150	Manual	5Mega IR	14
1/2	TC1514HD-IR	1.5	1.4	185	φ39×53.3	—	100	Fixed	Fisheye,3Mega IR	15
1/2	TVR3918HD-IR	3.9-10	1.8-C	96.5-36.5	φ36×46.52	—	105	Manual	3Mega IR	15
1/2	TVR3918HDDC-IR	3.9-10	1.8-360	96.5-37.3	φ41×46.52	—	105	DC	3Mega IR	15
■ Mega-Pixel Vari-Focal Lens										
1/3	TVR0314HD	3-10	1.4-C	88.58-27.95	φ37.5×57.8	—	82	Manual	3Mega	15
1/3	TVR0314HDDC	3-10	1.4-360	88.58-27.95	φ37.5×45.3×57.8	—	73	DC	3Mega	15
1/3	TVR0616HDDC-IR	6-60	1.6-360	44.57-4.69	φ39×46.1×78.1	—	139	DC	Mega IR	15
■ IR (Day&Night) High Resolution Vari-Focal Lens										
1/3	TVR3512DC-IR	3.5-8	1.2-360	83.2-34.3	φ38.0×45.1	—	80	DC	IR, Day&Night	16
1/3	TVR0514DC-IR	5-50	1.4-360	49.2-5.0	φ36×46×65	—	160	DC	IR, Day&Night	16
1/3	TVR2713DC-IR	2.7-12	1.3-360	98.66-23.56	φ37.5×45.4×61.8	—	90	DC	IR, Day&Night	16
1/3	TVR0398DC-IR	3-8.2	0.98-360	89.22-34.47	φ37.5×45.5×51.8	—	80	DC	IR, Day&Night	16
■ High Resolution Vari-Focal Lens										
1/3	TVR0616DC	6-60	1.6-360	43.62-4.73	φ37.5×46×74	—	110	DC		17
1/2	TVR1016DC	10-120	1.6-360	34.95-3.2	φ55×64×122.5	—	300	DC	Tripod mount	17
1/2	TVR1618DC	16-160	1.8-360	22.47-2.35	φ75×80×176	—	730	DC	Tripod mount	17
Image Format (")										
Model Number	Focal Length (mm)	Aperture Range	Angle of View(°)	Dimensions (mm)	Filter	Weight (g)	Note	Page		
■ Motorized Zoom Lenses										
1/2	TM16Z7516 Series	7.5-120	1.6-360 or Close	45.35-3.22	80×98×142.5	M72 P=0.75	980		16X Zoom	18
1/2	TM22Z1022 Series	10-220	2.2-360 or Close	34.14-1.74	80×101×158.7	M67 P=0.75	1050		22X Zoom	18
1/2	TM22Z1328 Series	13-280	2.8-360 or Close	26.76-1.37	80×101×168.7	M67 P=0.75	1050		22X Zoom	19
1/2	TM33Z1015 Series	10-330	1.5-560 or Close	34.99-1.13	122×125×260.5	M105 P=1.0	2900		33X Zoom	19
1/2	TM33Z1540 Series	15-500	4.0-560 or Close	23.19-0.75	122×125×267	M105 P=1.0	2900		33X Zoom	20
1/2	TM33Z1015HD Series	10-330	1.5-560	34.99-1.13	122×125×260.5	M105 P=1.0	2900		33X Zoom	20
1/2	TM55Z1557 Series	15-825	5.7-560	23.48-0.46	132×120.5×320.5	M95 P=1.0	4070		55X Zoom	21
1/2	TM55Z1038x2 Series	10-1100	3.8-720	34.57-0.34	132×120.5×298.5	M95 P=1.0	4070		55X Zoom with 2X Extender	21
■ IR Corrected Megapixel Motorized Zoom Lens										
1/2	TM20Z1225HD-IR Series	12-240	2.5-560	29.16-1.56	103×97.5×200.5	M67 P=0.5	1600		20X Zoom, 2Mega IR, Day&Night	22
■ IR Corrected Motorized Zoom Lens										
1/2	TM10Z8515IR Series	8.5-85	1.5-360	41.5-4.34	75.5×66×134.8	M62 P=0.75	700		10X Zoom IR, Day&Night	23
1/2	TM18Z8625IR Series	8.6-154	2.5-360	40.7-2.42	75.5×66×154.5	M62 P=0.75	775		18X Zoom IR, Day&Night	23
1/2	TM30Z1028IR Series	10-300	2.8-360	35.5-1.2	105×92×218.5	M77 P=0.75	1950		30X Zoom IR, Day&Night	24
■ iAF Auto Focus Motorized Zoom Lens										
1/2	TM16Z7516-iAF	7.5-120	1.6-360	45.35-3.22	80×121×142.5	M72 P=0.75	1080		16X Zoom AF	26
1/2	TM22Z1022-iAF	10-220	2.2-360	34.14-1.74	80×121×158.7	M67 P=0.75	1250		22X Zoom AF	26
1/2	TM33Z1017-iAF	10-330	1.7-360	34.99-1.13	122×125×267	M105 P=1.0	3000		33X Zoom AF	27
1/2	TM55Z1038x2-iAF	10-1100	3.8-720	34.57-0.34	132×120.5×298.5	M95 P=1.0	4170		55X Zoom with 2X Extender AF	27
■ Auto Focus Motorized Zoom Lens / IR Corrected Auto Focus Motorized Zoom Lens										
1/2	TM20Z1024AF	10-200	2.4-360	37.8-1.8	75.5×66×154.5	M62 P=0.75	780		20X Zoom AF	28
1/2	TM20Z1536AF	15-300	3.6-360	23.4-1.2	75.5×66×154.5	M62 P=0.75	780		20X Zoom AF	28
1/2	TM10Z8515AF-IR	8.5-85	1.5-360	41.5-4.34	75.5×66×134.8	M62 P=0.75	700		10X Zoom AF IR, Day&Night	29
1/2	TM18Z8625AF-IR	8.6-154	2.5-360	40.7-2.42	75.5×66×154.5	M62 P=0.75	780		18X Zoom AF IR, Day&Night	29
Image Format (")										
Model Number	Focal Length (mm)	Aperture Range	Angle of View(°)	Dimensions (mm)	Filter	Weight (g)	Note	Page		
■ Mega-Pixel Machine Vision Lenses										
2/3	TC0814-3MPG	8	1.4-16	57.3-44.3	φ30×47.5	M27 P=0.5	75		3Mega Focus, Iris screw	30
2/3	TC1214-3MPG	12	1.4-16	39.6-30.2	φ30×47.5	M27 P=0.5	80		3Mega Focus, Iris screw	30
2/3	TC1614-3MPG	16	1.4-16	30.46-23.07	φ30×43	M27 P=0.5	80		3Mega Focus, Iris screw	30
1/1.8	TC1214-3MP	12	1.4-22	32.38	φ29.5×35.7	M27 P=0.5	57		3Mega Focus, Iris screw	30
2/3	TC1614-3MP	16	1.4-16	30.99	φ29.5×37.2	M27 P=0.5	64		3Mega Focus, Iris screw	30
2/3	TC2514-3MP	25	1.4-16	19.98	φ29.5×38.9	M27 P=0.5	56		3Mega Focus, Iris screw	30
2/3	TC3516-3MP	35	1.6-16	14.74	φ29.5×40.8	M27 P=0.5	65		3Mega Focus, Iris screw	30
2/3	TC5028-3MP	50	2.8-22	10.03	φ29.5×38.0	M27 P=0.5	55		3Mega Focus, Iris screw	30

Quick Reference CCTV Lenses

Vari-Focal Lens & Zoom Lens Quick Reference



Mega-Pixel High Definition Lens

TVR1020HD-IR

TVR1020HDDC-IR

TVR0516HDDC-IR

**IR Corrected
High Resolution
Vari-Focal Lens**

1/1.8" Vari-Focal

1/1.8" Vari-Focal

1/3" Vari-Focal

IR (Day/Night)



Model Number	TVR1020HD-IR	TVR1020HDDC-IR	TVR0516HDDC-IR
Image Format	1/1.8"	1/1.8"	1/3"
Mount	C	C	CS
Focal Length	10 - 50mm	10 - 50mm	5 - 50mm
Aperture Range	F2.0 - 78	F2.0 - 360	F1.6 - 360
Angle Of View (Horizontal)	1/1.8", Only the TV0516HD 1/3"	40.53°	49.2° x 37.1°
	Wide	8.49°	5.0° x 3.8°
	Tele	0.3m	0.5m
M.O.D.*	0.3m	0.3m	0.5m
Back Focal Length	9.422mm	9.422mm	8.86mm
Dimensions (W x H x L)	ø50.0 x 57.0x 87.5mm	ø50.0 x 57.0x 87.5mm	ø39.0 x 50.0 x 70.6mm
Weight	250g	260g	120g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Manual	DC Auto Iris
	Focus	Manual	Manual
	Zoom	Manual	Manual
Note	IR (Day/Night), 3Mega Pixel	IR (Day/Night), 3Mega Pixel	IR (Day/Night), 2Mega Pixel

*Minimum Object Distance - definition p35

TVR2814HDDC-IR

TVR4518HD-IR

TVR4518HDDC-IR

TVR1620HD-IR

**IR Corrected
High Resolution
Vari-Focal Lens**

1/2.7" Vari-Focal

1/2" Vari-Focal

1/2" Vari-Focal

1/2" Vari-Focal

IR (Day/Night)



Model Number	TVR2814HDDC-IR	TVR4518HD-IR	TVR4518HDDC-IR	TVR1620HD-IR
Image Format	1/2.7"	1/2"	1/2"	1/2"
Mount	CS	CS	CS	CS
Focal Length	2.8 - 12mm	4.5 - 13mm	4.5 - 13mm	16 - 48mm
Aperture Range	F1.4 - 360	F1.8 - C	F1.8 - C	F2.0 - C
Angle Of View (Horizontal)	1/2", Only the TV2814HD 1/2.7"	106.1° x 76.1°	90.3°	90.3°
	Wide	33.3° x 24.8°	29.4°	31.2°
	Tele	0.3m	0.5m	0.5m
M.O.D.*	0.3m	0.5m	0.5m	0.415m
Back Focal Length	7.73mm	6.67mm	6.67mm	8.81mm
Dimensions (W x H x L)	ø31.0 x 44.0 x 45.1mm	ø39.0 x 59.0mm	ø39.0 x 50.0x 61.0mm	ø40.0 x 73.5mm
Weight	90g	123g	137g	150g
Operating Temperature Range	-10 ~ 50 °C	-5 ~ 50 °C	-20 ~ 50 °C	-5 ~ 50 °C
Operating	Iris	DC Auto Iris	Manual	DC Auto Iris
	Focus	Manual	Manual	Manual
	Zoom	Manual	Manual	Manual
Note	IR (Day/Night), 2Mega Pixel	IR (Day/Night), 5Mega Pixel	IR (Day/Night), 5Mega Pixel	IR (Day/Night), 5Mega Pixel

Mega-Pixel High Definition Lens

TC1514HD-IR

TVR3918HD-IR

TVR3918HDDC-IR

**IR Corrected
High Resolution
Vari-Focal Lens**

1/2" Fixed-Focal
Fisheye

1/2" Vari-Focal

1/2" Vari-Focal

IR (Day/Night)



Model Number	TC1514HD-IR	TVR3918HD-IR	TVR3918HDDC-IR
Image Format	1/2"	1/2"	1/2"
Mount	CS	CS	CS
Focal Length	1.5mm	3.9 - 10mm	3.9 - 10mm
Aperture Range	F1.4 Fixed	F1.8 - C	F1.8 - 360
Angle Of View (Horizontal)	185°	96.5°	96.5°
Angle Of View (Vertical)	-	36.5°	37.3°
M.O.D.	0.1m	0.3m	0.3m
Back Focal Length	7.22mm	7.3mm - 13.22mm	7.3mm - 13.22mm
Dimensions (W x H x L)	ø39.0 x 53.3mm	ø36.0 x 46.52mm	ø41.0 x 46.52mm
Weight	100g	105g	105g
Operating Temperature Range	-5 ~ 50 °C	-20 ~ 50 °C	-20 ~ 50 °C
Operating Iris	-	Manual	DC Auto Iris
Operating Focus	-	Manual	Manual
Operating Zoom	-	Manual	Manual
Note	Fisheye, IR (Day/Night), 3Mega Pixel	IR (Day/Night), 3Mega Pixel	IR (Day/Night), 3Mega Pixel

TVR0314HD

TVR0314HDDC

TVR0616HDDC-IR

**High Resolution
Vari-Focal Lens**

1/3" Vari-Focal

1/3" Vari-Focal

1/3" Vari-Focal



Model Number	TVR0314HD	TVR0314HDDC	TVR0616HDDC-IR
Image Format	1/3"	1/3"	1/3"
Mount	CS	CS	CS
Focal Length	3 - 10mm	3 - 10mm	6 - 60mm
Aperture Range	F1.4 - Close	F1.4 - 360	F1.6 - 360
Angle Of View (Horizontal x Vertical)	1/3" Wide 88.58° x 66.60°	88.58° x 66.60°	1/3" Tele 44.57° x 33.49°
Angle Of View (Vertical)	27.95° x 21.0°	27.95° x 21.0°	4.69° x 3.53°
M.O.D.	0.3m	0.3m	0.3m
Back Focal Length	9.67 - 18.95mm	9.67 - 18.95mm	9.64mm
Dimensions (W x H x L)	ø37.5 x 57.8mm	ø37.5 x 45.3 x 57.8mm	ø39.0 x 46.1 x 78.1mm
Weight	82g	73g	139g
Operating Temperature Range	-5 ~ 50 °C	-5 ~ 50 °C	-10 ~ 50 °C
Operating Iris	Manual	DC Auto Iris	DC Auto Iris
Operating Focus	Manual	Manual	Manual
Operating Zoom	Manual	Manual	Manual
Note	3Mega Pixel	3Mega Pixel	IR (Day/Night), Mega Pixel

High Resolution Vari-Focal Lens

TVR3512DC-IR

IR Corrected
High Resolution
Vari-Focal Lens

NEW

1/3" Vari-Focal

IR (Day/Night)



TVR0514DC-IR

1/3" Vari-Focal



Model Number		TVR3512DC-IR	TVR0514DC-IR
Image Format		1/3"	1/3"
Mount		CS	CS
Focal Length		3.5 - 8mm	5 - 50mm
Aperture Range		F1.2 - 360	F1.4 - 360
Angle Of View (Horizontal x Vertical)	1/3" Wide	83.2° × 61°	49.2° × 37.1°
	Tele	34.3° × 25.7°	5.0° × 3.8°
M.O.D.		0.3m	0.5m
Back Focal Length		7.42mm	9.8mm
Dimensions (W x H x L)		ø38.0 x 45.1mm	ø36.0 x 46.0 x 65.0mm
Weight		80g	160g
Operating Temperature Range		-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	DC Auto Iris	DC Auto Iris
	Focus	Manual	Manual
	Zoom	Manual	Manual
Note		IR (Day/Night)	IR (Day/Night)

TVR2713DC-IR

IR Corrected
High Resolution
Vari-Focal Lens

1/3" Vari-Focal

IR (Day/Night)



As SD
Approved for use in the

TVR0398DC-IR

1/3" Vari-Focal



As SD
Approved for use in the

Model Number		TVR2713DC-IR	TVR0398DC-IR
Image Format		1/3"	1/3"
Mount		CS	CS
Focal Length		2.7 - 12mm	3 - 8.2mm
Aperture Range		F1.3 - 360	F0.98 - 360
Angle Of View (Horizontal)	1/3" Wide	98.66°	89.22°
	Tele	23.56°	34.47°
M.O.D.		0.2m	0.3m
Dimensions (W x H x L)		ø37.5 x 45.4 x 61.8mm	ø37.5 x 45.5 x 51.8mm
Weight		90g	80g
Operating Temperature Range		-10 ~ 45 °C	-10 ~ 50 °C
Operating	Iris	DC Auto Iris	DC Auto Iris
	Focus	Manual	Manual
	Zoom	Manual	Manual
Note		IR (Day/Night)	IR (Day/Night)

High Resolution Vari-Focal Lens

TVR0616DC

High Resolution
Vari-Focal Lens

1/3" Vari-Focal



Model Number		TVR0616DC	
Image Format		1/3"	
Mount		CS	
Focal Length		6 - 60mm	
Aperture Range		F1.6 - 360	
Angle Of View (Horizontal)	1/3"	Wide	43.62°
		Tele	4.73°
M.O.D.		0.1m	
Dimensions (W x H x L)		ø37.5 x 46.0 x 74.0mm	
Weight		110g	
Operating Temperature Range		-10 ~ 50 °C	
Operating	Iris	DC Auto Iris	
	Focus	Manual	
	Zoom	Manual	
Note			

TVR1016DC

1/2" Vari-Focal



Model Number		TVR1016DC	
Image Format		1/2"	
Mount		C	
Focal Length		10 - 120mm	
Aperture Range		F1.6 - 360	
Angle Of View (Horizontal)	1/2"	Wide	34.95°
		Tele	3.2°
	1/3"	Wide	26.2°
		Tele	2.4°
M.O.D.		0.3m	
Dimensions (W x H x L)		ø55.0 x 64.0x 122.5mm	
Weight		300g	
Operating Temperature Range		-10 ~ 45 °C	
Operating	Iris	DC Auto Iris	
	Focus	Manual	
	Zoom	Manual	
Note		Tripod mount	

TVR1618DC

High Resolution
Vari-Focal Lens

1/2" Vari-Focal



Model Number		TVR1618DC	
Image Format		1/2"	
Mount		C	
Focal Length		16 - 160mm	
Aperture Range		F1.8 - 360	
Angle Of View (Horizontal)	1/2"	Wide	22.47°
		Tele	2.35°
	1/3"	Wide	16.78°
		Tele	1.77°
M.O.D.		0.3 - 2.0m	
Dimensions (W x H x L)		ø75.0 x 80.0 x 176.0mm	
Weight		730g	
Operating Temperature Range		-10 ~ 45 °C	
Operating	Iris	DC Auto Iris	
	Focus	Manual	
	Zoom	Manual	
Note		Tripod mount	

Motorized Zoom Lens

TM16Z7516N TM16Z7516NPN TM16Z7516GAI TM16Z7516GAIPN TM16Z7516GAIDC TM16Z7516GAIDCPN

TM16Z7516 Series

1/2" 16X



Model Number	TM16Z7516N	TM16Z7516NPN*	TM16Z7516GAI	TM16Z7516GAIPN	TM16Z7516GAIDC	TM16Z7516GAIDCPN
Image Format	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C	C	C
Focal Length	7.5 - 120mm	7.5 - 120mm	7.5 - 120mm	7.5 - 120mm	7.5 - 120mm	7.5 - 120mm
Aperture Range	F1.6 - C	F1.6 - C	F1.6 - 360	F1.6 - 360	F1.6 - 360	F1.6 - 360
Zoom	x16	x16	x16	x16	x16	x16
Angle Of View (Horizontal)	1/2"	Wide	45.35°	45.35°	45.35°	45.35°
		Tele	3.22°	3.22°	3.22°	3.22°
	1/3"	Wide	34.49°	34.49°	34.49°	34.49°
		Tele	2.41°	2.41°	2.41°	2.41°
M.O.D.	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m
Filter size	M72mm P=0.75	M72mm P=0.75	M72mm P=0.75	M72mm P=0.75	M72mm P=0.75	M72mm P=0.75
Back Focal Length	12.80mm	12.80mm	12.80mm	12.80mm	12.80mm	12.80mm
Dimensions (W x H x L)	80.0 x 98.0 x 142.5mm	80.0 x 98.0 x 142.5mm	80.0 x 98.0 x 142.5mm	80.0 x 98.0 x 142.5mm	80.0 x 98.0 x 142.5mm	80.0 x 98.0 x 142.5mm
Weight	980g	980g	980g	980g	980g	980g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized	Motorized*	Video Auto Iris	Video Auto Iris	DC Auto Iris
	Focus	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized
	Zoom	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized
Note	*: Type NPN-3 is available for this model.					

TM22Z1022N TM22Z1022NPN TM22Z1022AI TM22Z1022AIPN TM22Z1022GAI TM22Z1022GAIPN TM22Z1022GAIDC TM22Z1022GAIDCPN

TM22Z1022 Series

1/2" 22X



Model Number	TM22Z1022N	TM22Z1022NPN*	TM22Z1022AI	TM22Z1022AIPN	TM22Z1022GAI	TM22Z1022GAIPN	TM22Z1022GAIDC	TM22Z1022GAIDCPN
Image Format	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C	C	C	C	C
Focal Length	10 - 220mm	10 - 220mm	10 - 220mm	10 - 220mm	10 - 220mm	10 - 220mm	10 - 220mm	10 - 220mm
Aperture Range	F2.2 - C	F2.2 - C	F2.2 - 360	F2.2 - 360	F2.2 - 360	F2.2 - 360	F2.2 - 360	F2.2 - 360
Zoom	x22	x22	x22	x22	x22	x22	x22	x22
Angle Of View (Horizontal)	1/2"	Wide	34.14°	34.14°	34.14°	34.14°	34.14°	34.14°
		Tele	1.74°	1.74°	1.74°	1.74°	1.74°	
	1/3"	Wide	25.90°	25.90°	25.90°	25.90°	25.90°	
		Tele	1.31°	1.31°	1.31°	1.31°	1.31°	
M.O.D.	1.8m	1.8m	1.8m	1.8m	1.8m	1.8m	1.8m	
Filter size	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75
Back Focal Length	11mm	11mm	11mm	11mm	11mm	11mm	11mm	11mm
Dimensions (W x H x L)	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm	80.0 x 101.0 x 158.7mm
Weight	1050g	1050g	1050g	1050g	1050g	1050g	1050g	1050g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized	Motorized*	Video Auto Iris	Video Auto Iris	Video Auto Iris	DC Auto Iris	DC Auto Iris
	Focus	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized	Motorized	Motorized W/preset
	Zoom	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized	Motorized	Motorized W/preset
Note	*: Type NPN-3 is available for this model.							

Motorized Zoom Lens / Long Focal Length Motorized Zoom Lens

TM22Z1328N TM22Z1328NPN TM22Z1328AI TM22Z1328AIPN TM22Z1328GAI TM22Z1328GAIPN TM22Z1328GAIDC TM22Z1328GAIDCPN

TM22Z1328 Series

1/2" 22X



Model Number	TM22Z1328N	TM22Z1328NPN*	TM22Z1328AI	TM22Z1328AIPN	TM22Z1328GAI	TM22Z1328GAIPN	TM22Z1328GAIDC	TM22Z1328GAIDCPN
Image Format	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C	C	C	C	C
Focal Length	13 - 280mm	13 - 280mm	13 - 280mm	13 - 280mm	13 - 280mm	13 - 280mm	13 - 280mm	13 - 280mm
Aperture Range	F2.8 - C	F2.8 - C	F2.8 - 360	F2.8 - 360	F2.8 - 360	F2.8 - 360	F2.8 - 360	F2.8 - 360
Zoom	x22	x22	x22	x22	x22	x22	x22	x22
Angle Of View (Horizontal)	1/2"	Wide	26.76°	26.76°	26.76°	26.76°	26.76°	26.76°
		Tele	1.37°	1.37°	1.37°	1.37°	1.37°	1.37°
	1/3"	Wide	20.23°	20.23°	20.23°	20.23°	20.23°	20.23°
		Tele	1.02°	1.02°	1.02°	1.02°	1.02°	1.02°
M.O.D.	1.8m	1.8m	1.8m	1.8m	1.8m	1.8m	1.8m	
Filter size	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75
Back Focal Length	11mm	11mm	11mm	11mm	11mm	11mm	11mm	11mm
Dimensions (W x H x L)	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm	80.0 x 101.0 x 168.7mm
Weight	1050g	1050g	1050g	1050g	1050g	1050g	1050g	1050g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized	Motorized*	Video Auto Iris	Video Auto Iris	Video Auto Iris	Video Auto Iris	DC Auto Iris
	Focus	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized
	Zoom	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized
Note	*: Type NPN-3 is available for this model.							

TM33Z1015N TM33Z1015NPN TM33Z1015AI TM33Z1015AIPN TM33Z1017GAIDC TM33Z1017GAIDCPN

TM33Z1015 Series

1/2" 33X



Model Number	TM33Z1015N	TM33Z1015NPN*	TM33Z1015AI	TM33Z1015AIPN	TM33Z1017GAIDC	TM33Z1017GAIDCPN
Image Format	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C	C	C
Focal Length	10 - 330mm	10 - 330mm	10 - 330mm	10 - 330mm	10 - 330mm	10 - 330mm
Aperture Range	F1.5 - C	F1.5 - C	F1.5 - 560	F1.5 - 560	F1.7 - 560	F1.7 - 560
Zoom	x33	x33	x33	x33	x33	x33
Angle Of View (Horizontal)	1/2"	Wide	34.99°	34.99°	34.99°	34.99°
		Tele	1.13°	1.13°	1.13°	1.13°
	1/3"	Wide	26.44°	26.44°	26.44°	26.44°
		Tele	0.85°	0.85°	0.85°	0.85°
M.O.D.	2.9m	2.9m	2.9m	2.9m	2.9m	2.9m
Filter size	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0
Back Focal Length	11mm	11mm	11mm	11mm	11mm	11mm
Dimensions (W x H x L)	122.0 x 125.0 x 260.5mm	122.0 x 125.0 x 260.5mm	122.0 x 125.0 x 260.5mm	122.0 x 125.0 x 260.5mm	122.0 x 125.0 x 260.5mm	122.0 x 125.0 x 260.5mm
Weight	2900g	2900g	2900g	2900g	2900g	2900g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized	Motorized*	Video Auto Iris	Video Auto Iris	DC Auto Iris
	Focus	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized
	Zoom	Motorized	Motorized W/preset	Motorized	Motorized W/preset	Motorized
Note	*: Type NPN-3 is available for this model.					

Long Focal Length Motorized Zoom Lens

TM33Z1540NPN

TM33Z1540AI

TM33Z1540AIPN

TM33Z1540GAIDCPN

TM33Z1540 Series

1/2" 33X



Model Number	TM33Z1540NPN*	TM33Z1540AI	TM33Z1540AIPN	TM33Z1540GAIDCPN
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	15 - 500mm	15 - 500mm	15 - 500mm	15 - 500mm
Aperture Range	F4.0 - C	F4.0 - 560	F4.0 - 560	F4.0 - 560
Zoom	x33	x33	x33	x33
Angle Of View (Horizontal)	1/2"	Wide	23.185°	23.185°
		Tele	0.747°	0.747°
	1/3"	Wide	17.492°	17.492°
		Tele	0.562°	0.562°
M.O.D.	2.9m	2.9m	2.9m	2.9m
Filter size	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0
Back Focal Length	11mm	11mm	11mm	11mm
Dimensions (W x H x L)	122.0 x 125.0 x 267.0mm	122.0 x 125.0 x 267.0mm	122.0 x 125.0 x 267.0mm	122.0 x 125.0 x 267.0mm
Weight	2900g	2900g	2900g	2900g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized*	Video Auto Iris	DC Auto Iris
	Focus	Motorized W/preset	Motorized	Motorized W/preset
	Zoom	Motorized W/preset	Motorized	Motorized W/preset
Note	*: Type NPN-3 is available for this model.			

TM33Z1015HDGAIDCPN

TM33Z1015HD Series

1/2" 33X

Mega-Pixel Lens



Model Number	TM33Z1015HDGAIDCPN		
Image Format	1/2"		
Mount	C		
Focal Length	10 - 330mm		
Aperture Range	F1.5 - 560		
Zoom	x33		
Angle Of View (Horizontal)	1/2"	Wide	34.99°
		Tele	1.13°
	1/3"	Wide	26.44°
		Tele	0.85°
M.O.D.	2.9m		
Filter size	M105mm P=1.0		
Back Focal Length	11mm		
Dimensions (W x H x L)	122.0 x 125.0 x 260.5mm		
Weight	2900g		
Operating Temperature Range	-10 ~ 50 °C		
Operating	Iris	DC Auto Iris	
	Focus	Motorized W/preset	
	Zoom	Motorized W/preset	
Note	Mega-Pixel Lens		

Long Focal Length Motorized Zoom Lens

TM55Z1557N

TM55Z1557AIPN

TM55Z1557 Series

1/2" 55X



Model Number	TM55Z1557N		TM55Z1557AIPN	
Image Format	1/2"		1/2"	
Mount	C		C	
Focal Length	15 - 825mm		15 - 825mm	
Aperture Range	F5.7 - 560		F5.7 - 560	
Zoom	x55		x55	
Angle Of View (Horizontal)	1/2"	Wide	23.48°	23.48°
		Tele	0.46°	0.46°
	1/3"	Wide	17.67°	17.67°
		Tele	0.34°	0.34°
M.O.D.	5.0m		5.0m	
Filter size	M95mm P=1.0		M95mm P=1.0	
Back Focal Length	59.814mm		59.814mm	
Dimensions (W x H x L)	132.0 x 120.5 x 320.5mm		132.0 x 120.5 x 320.5mm	
Weight	4070g		4070g	
Operating Temperature Range	-10 ~ 50 °C		-10 ~ 50 °C	
Operating	Iris	Motorized	Video Auto Iris	
	Focus	Motorized	Motorized W/preset	
	Zoom	Motorized	Motorized W/preset	
Note				

TM55Z1038NPN3x2

TM55Z1038AIx2

TM55Z1038AIPNx2

TM55Z1038GAIDCPNx2

TM55Z1038 x2 Series

1/2" 55X

with 2x Extender



Model Number	TM55Z1038NPN3x2		TM55Z1038AIx2		TM55Z1038AIPNx2		TM55Z1038GAIDCPNx2	
Image Format	1/2"		1/2"		1/2"		1/2"	
Mount	C		C		C		C	
Focal Length	10(20) - 550(1100)mm		10(20) - 550(1100)mm		10(20) - 550(1100)mm		10(20) - 550(1100)mm	
Aperture Range	F3.8(7.6) - 360(720)		F3.8(7.6) - 360(720)		F3.8(7.6) - 360(720)		F3.8(7.6) - 360(720)	
Zoom	x110		x110		x110		x110	
Angle Of View (Horizontal)	1/2"	Wide	34.57°(17.67°)	34.57°(17.67°)	34.57°(17.67°)	34.57°(17.67°)	34.57°(17.67°)	
		Tele	0.69°(0.34°)	0.69°(0.34°)	0.69°(0.34°)	0.69°(0.34°)	0.69°(0.34°)	
	1/3"	Wide	26.33°(13.30°)	26.33°(13.30°)	26.33°(13.30°)	26.33°(13.30°)	26.33°(13.30°)	
		Tele	0.52°(0.26°)	0.52°(0.26°)	0.52°(0.26°)	0.52°(0.26°)	0.52°(0.26°)	
M.O.D.	5.0m		5.0m		5.0m		5.0m	
Filter size	M95mm P=1.0		M95mm P=1.0		M95mm P=1.0		M95mm P=1.0	
Back Focal Length	47.37mm		47.37mm		47.37mm		47.37mm	
Dimensions (W x H x L)	132.0 x 120.5 x 298.5mm		132.0 x 120.5 x 298.5mm		132.0 x 120.5 x 298.5mm		132.0 x 120.5 x 298.5mm	
Weight	4070g		4070g		4070g		4070g	
Operating Temperature Range	-10 ~ 50 °C		-10 ~ 50 °C		-10 ~ 50 °C		-10 ~ 50 °C	
Operating	Iris	Motorized W/preset	Video Auto Iris		Video Auto Iris		DC Auto Iris	
	Focus	Motorized W/preset	Motorized		Motorized W/preset		Motorized W/preset	
	Zoom	Motorized W/preset	Motorized		Motorized W/preset		Motorized W/preset	
Note	x2 Extender		x2 Extender		x2 Extender		x2 Extender	

IR Corrected Megapixel Motorized Zoom Lens

TM20Z1225HDGAIPN-IR

TM20Z1225HDGAIDCPN-IR

TM20Z1225-IR Series

1/2" 20X

2MP IR

IR (Day/Night)

NEW

2MP/IR



Model Number	TM20Z1225HDGAIPN-IR	TM20Z1225HDGAIDCPN-IR
Image Format	1/2"	1/2"
Mount	C	C
Focal Length	12 - 240mm	12 - 240mm
Aperture Range	F2.5 - 560	F2.5 - 560
Zoom	x20	x20
Angle Of View (Horizontal)	29.16°x22.07°	29.16°x22.07°
M.O.D.	1.56°x1.17°	1.56°x1.17°
Filter size	2.0m	2.0m
Back Focal Length	M67mm P=0.75	M67mm P=0.75
Dimensions (W x H x L)	13.029mm	13.029mm
Weight	103.0 x 97.5 x 200.5mm	103.0 x 97.5 x 200.5mm
Operating Temperature Range	1600g	1600g
	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	DC Auto Iris
	Video Auto Iris and Manual Override	Motorized W/preset
	Motorized W/preset	Motorized W/preset
Note	IR (Day/Night), 2Mega Pixel	IR (Day/Night), 2Mega Pixel

FEATURE

Full HD ~ 2MP

For IP cameras and MP cameras
For NTSC and PAL cameras

IR-corrected

For 24hrs surveillance
For Day/Night camera with IR illuminator

Innovative Direct Acting

Improvement for the shaking and the leaping of image

Manual Override

Controlling iris manually in addition to video auto

* TM20Z1225HDGAIPN-IR only

IR Corrected Motorized Zoom Lens

TM10Z8515N-IR TM10Z8515NPN-IR TM10Z8515AI-IR TM10Z8515AIPN-IR

TM10Z8515-IR Series

1/2" 10X

IR (Day/Night)



Model Number	TM10Z8515N-IR	TM10Z8515NPN-IR	TM10Z8515AI-IR	TM10Z8515AIPN-IR
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	8.5 - 85mm	8.5 - 85mm	8.5 - 85mm	8.5 - 85mm
Aperture Range	F1.5 - 360	F1.5 - 360	F1.5 - 360	F1.5 - 360
Zoom	x10	x10	x10	x10
Angle Of View (Horizontal)	41.5°	41.5°	41.5°	41.5°
	1/2" Wide			
	4.34°	4.34°	4.34°	4.34°
	1/2" Tele			
M.O.D.	1.5m	1.5m	1.5m	1.5m
Filter size	M62mm P=0.75	M62mm P=0.75	M62mm P=0.75	M62mm P=0.75
Back Focal Length	14.65mm	14.65mm	14.65mm	14.65mm
Dimensions (W x H x L)	75.5 x 66.0 x 134.8mm	75.5 x 66.0 x 134.8mm	75.5 x 66.0 x 134.8mm	75.5 x 66.0 x 134.8mm
Weight	685g	695g	690g	700g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized	Video Auto Iris	Video Auto Iris
	Focus	Motorized	Motorized	Motorized W/preset
	Zoom	Motorized	Motorized W/preset	Motorized W/preset
Note	IR (Day/Night)	IR (Day/Night)	IR (Day/Night)	IR (Day/Night)

TM18Z8625N-IR TM18Z8625NPN-IR TM18Z8625AI-IR TM18Z8625AIPN-IR

TM18Z8625-IR Series

1/2" 18X

IR (Day/Night)



Model Number	TM18Z8625N-IR	TM18Z8625NPN-IR	TM18Z8625AI-IR	TM18Z8625AIPN-IR
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	8.6 - 154mm	8.6 - 154mm	8.6 - 154mm	8.6 - 154mm
Aperture Range	F2.5 - 360	F2.5 - 360	F2.5 - 360	F2.5 - 360
Zoom	x18	x18	x18	x18
Angle Of View (Horizontal)	40.7°	40.7°	40.7°	40.7°
	1/2" Wide			
	2.42°	2.42°	2.42°	2.42°
	1/2" Tele			
M.O.D.	2m	2m	2m	2m
Filter size	M62mm P=0.75	M62mm P=0.75	M62mm P=0.75	M62mm P=0.75
Back Focal Length	14.2mm	14.2mm	14.2mm	14.2mm
Dimensions (W x H x L)	75.5 x 66.0 x 154.5mm	75.5 x 66.0 x 154.5mm	75.5 x 66.0 x 154.5mm	75.5 x 66.0 x 154.5mm
Weight	760g	770g	765g	775g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Motorized	Video Auto Iris	Video Auto Iris
	Focus	Motorized	Motorized	Motorized W/preset
	Zoom	Motorized	Motorized W/preset	Motorized W/preset
Note	IR (Day/Night)	IR (Day/Night)	IR (Day/Night)	IR (Day/Night)

IR Corrected Motorized Zoom Lens

TM30Z1028GAI-IR TM30Z1028GAIPN-IR TM30Z1028GAIDC-IR TM30Z1028GAIDCPN-IR

TM30Z1028-IR Series

1/2" 30X

IR (Day/Night)



Model Number	TM30Z1028GAI-IR	TM30Z1028GAIPN-IR	TM30Z1028GAIDC-IR	TM30Z1028GAIDCPN-IR
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	10 - 300mm	10 - 300mm	10 - 300mm	10 - 300mm
Aperture Range	F2.8 - 360	F2.8 - 360	F2.8 - 360	F2.8 - 360
Zoom	x30	x30	x30	x30
Angle Of View (Horizontal)	1/2"	Wide	35.5°	35.5°
		Tele	1.2°	1.2°
	1/3"	Wide	27°	27°
		Tele	0.9°	0.9°
M.O.D.	3m	3m	3m	3m
Filter size	M77mm P=0.75	M77mm P=0.75	M77mm P=0.75	M77mm P=0.75
Back Focal Length	43.27mm	43.27mm	43.27mm	43.27mm
Dimensions (W x H x L)	105.0 x 92.0 x 218.5mm	105.0 x 92.0 x 218.5mm	105.0 x 92.0 x 218.5mm	105.0 x 92.0 x 218.5mm
Weight	1900g	1950g	1900g	1950g
Operating Temperature Range	-10 ~ 60 °C		-10 ~ 60 °C	
	Iris	Video Auto Iris	Video Auto Iris	DC Auto Iris
Operating	Focus	Motorized	Motorized W/preset	Motorized
	Zoom	Motorized	Motorized W/preset	Motorized W/preset
Note	IR (Day/Night)	IR (Day/Night)	IR (Day/Night)	IR (Day/Night)

Lens Accessories

TOK-2X

2X Extender



Model Number	TOK-2X
Mount	C
Description	2X Extender
Note	* This makes focal length 2X * Used between lens mount and camera
Recommended models	TM22Z1022/TM22Z1328 series

Intelligent Auto Focus Motorized Zoom Lens

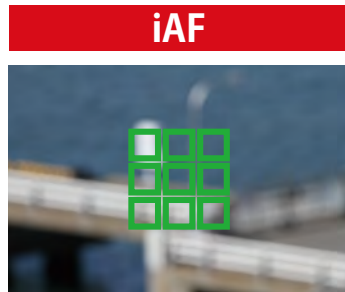
Available 16x, 22x, 33x, 55x with 2x Extender

• Intelligent Auto Focus (iAF)'s special feature

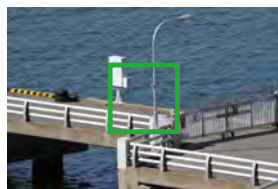
1 Range Finding in 9 Divided Area



AF detection on only a center range-finding area



Accurate AF detection by dividing the center range-finding area in 9 areas



It takes time to autofocus and typical autofocusing has a limitation in accuracy.

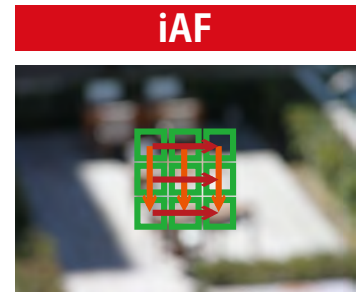


iAF realizes high speed and highly accurate auto focusing.

2 AF Detection by Matrix



AF detection on only vertical direction



Accurate AF detection on horizontal and vertical matrix direction



It takes time to autofocus and typical autofocusing has a limitation in accuracy.



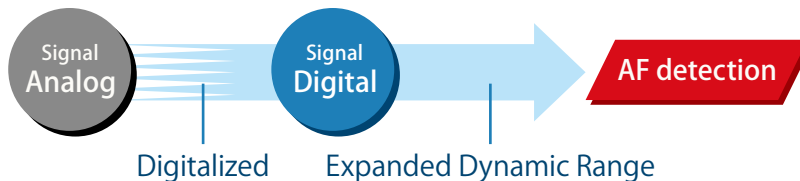
iAF realizes high speed and highly accurate auto focusing.

3 Digital Processing

Typical Normal speed AF detection with analog signal = Analog Processing



iAF High speed AF detection with digitalized signal = Digital Processing



This provides you high speed and highly accurate auto focusing.

- < Precaution >
- iAF lenses can be used with IP cameras which have video output.
 - Auto focus accuracy might be different according to using cameras.
 - AF may not focus properly under conditions in below:
 - Low contrast object
 - Several same levels of contrast rate points in an object
 - When camera operates in accumulate mode

Intelligent Auto Focus Motorized Zoom Lens

TM16Z7516GAIPN-iAF(CONT) TM16Z7516GAIPN-iAF(232C) TM16Z7516GAIDCPN-iAF(CONT) TM16Z7516GAIDCPN-iAF(232C)

TM16Z7516-iAF Series

1/2" 16X



Model Number	TM16Z7516GAIPN-iAF(CONT)	TM16Z7516GAIPN-iAF(232C)	TM16Z7516GAIDCPN-iAF(CONT)	TM16Z7516GAIDCPN-iAF(232C)
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	7.5 - 120mm	7.5 - 120mm	7.5 - 120mm	7.5 - 120mm
Aperture Range	F1.6 - 360	F1.6 - 360	F1.6 - 360	F1.6 - 360
Zoom	x16	x16	x16	x16
Angle Of View (Horizontal)	45.35°	45.35°	45.35°	45.35°
	1/2" Wide	1/2" Wide	1/2" Wide	1/2" Wide
	3.22°	3.22°	3.22°	3.22°
M.O.D.	1.5m	1.5m	1.5m	1.5m
Filter size	M72mm P=0.75	M72mm P=0.75	M72mm P=0.75	M72mm P=0.75
Back Focal Length	12.80mm	12.80mm	12.80mm	12.80mm
Dimensions (W x H x L)	80.0 x 121.0 x 142.5mm	80.0 x 121.0 x 142.5mm	80.0 x 121.0 x 142.5mm	80.0 x 121.0 x 142.5mm
Weight	1080g	1080g	1080g	1080g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Video Auto Iris or Motorized	Video Auto Iris or Motorized	DC Auto Iris
	Focus	Auto or Motorized W/Preset	Auto or Motorized W/Preset	Auto or Motorized W/Preset
	Zoom	Motorized W/Preset	Motorized W/Preset	Motorized W/Preset
Control	Controller	RS-232C	Controller	RS-232C

TM22Z1022GAIPN-iAF(CONT) TM22Z1022GAIPN-iAF(232C) TM22Z1022GAIDCPN-iAF(CONT) TM22Z1022GAIDCPN-iAF(232C)

TM22Z1022-iAF Series

1/2" 22X



Model Number	TM22Z1022GAIPN-iAF(CONT)	TM22Z1022GAIPN-iAF(232C)	TM22Z1022GAIDCPN-iAF(CONT)	TM22Z1022GAIDCPN-iAF(232C)
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	10 - 220mm	10 - 220mm	10 - 220mm	10 - 220mm
Aperture Range	F2.2 - 360	F2.2 - 360	F2.2 - 360	F2.2 - 360
Zoom	x22	x22	x22	x22
Angle Of View (Horizontal)	34.14°	34.14°	34.14°	34.14°
	1/2" Wide	1/2" Wide	1/2" Wide	1/2" Wide
	1.74°	1.74°	1.74°	1.74°
M.O.D.	1.8m	1.8m	1.8m	1.8m
Filter size	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75	M67mm P=0.75
Back Focal Length	11.0mm	11.0mm	11.0mm	11.0mm
Dimensions (W x H x L)	80.0 x 121.0 x 158.7mm	80.0 x 121.0 x 158.7mm	80.0 x 121.0 x 158.7mm	80.0 x 121.0 x 158.7mm
Weight	1250g	1250g	1250g	1250g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Video Auto Iris or Motorized	Video Auto Iris or Motorized	DC Auto Iris
	Focus	Auto or Motorized W/Preset	Auto or Motorized W/Preset	Auto or Motorized W/Preset
	Zoom	Motorized W/Preset	Motorized W/Preset	Motorized W/Preset
Control	Controller	RS-232C	Controller	RS-232C

Intelligent Auto Focus Motorized Zoom Lens

TM33Z1017GAIPN-iAF(CONT) TM33Z1017GAIPN-iAF(232C) TM33Z1017GAIDCPN-iAF(CONT) TM33Z1017GAIDCPN-iAF(232C)

TM33Z1017-iAF Series

1/2" 33X



Model Number	TM33Z1017GAIPN-iAF(CONT)	TM33Z1017GAIPN-iAF(232C)	TM33Z1017GAIDCPN-iAF(CONT)	TM33Z1017GAIDCPN-iAF(232C)
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	10 - 330mm	10 - 330mm	10 - 330mm	10 - 330mm
Aperture Range	F1.7 - 360	F1.7 - 360	F1.7 - 360	F1.7 - 360
Zoom	x33	x33	x33	x33
Angle Of View (Horizontal)	34.99°	34.99°	34.99°	34.99°
	1/2" Wide			
	Tele			
M.O.D.	2.9m	2.9m	2.9m	2.9m
Filter size	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0	M105mm P=1.0
Back Focal Length	11.0mm	11.0mm	11.0mm	11.0mm
Dimensions (W x H x L)	122.0 x 125.0 x 267.0mm	122.0 x 125.0 x 267.0mm	122.0 x 125.0 x 267.0mm	122.0 x 125.0 x 267.0mm
Weight	3000g	3000g	3000g	3000g
Operating Temperature Range	-5 ~ 45 °C	-5 ~ 45 °C	-5 ~ 45 °C	-5 ~ 45 °C
Operating	Iris	Video Auto Iris or Motorized	Video Auto Iris or Motorized	DC Auto Iris
	Focus	Auto or Motorized W/Preset	Auto or Motorized W/Preset	Auto or Motorized W/Preset
	Zoom	Motorized W/Preset	Motorized W/Preset	Motorized W/Preset
Control	Controller	RS-232C	Controller	RS-232C

TM55Z1038GAIPN×2-iAF(CONT) TM55Z1038GAIPN×2-iAF(232C) TM55Z1038GAIDCPN×2-iAF(CONT) TM55Z1038GAIDCPN×2-iAF(232C)

TM55Z1038×2-iAF Series

1/2" 55X with 2x Extender



Model Number	TM55Z1038GAIPN×2-iAF(CONT)	TM55Z1038GAIPN×2-iAF(232C)	TM55Z1038GAIDCPN×2-iAF(CONT)	TM55Z1038GAIDCPN×2-iAF(232C)
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	10 - 550mm (20 - 1100mm)	10 - 550mm (20 - 1100mm)	10 - 550mm (20 - 1100mm)	10 - 550mm (20 - 1100mm)
Aperture Range	F3.8 - 360 (F7.6 - 720)	F3.8 - 360 (F7.6 - 720)	F3.8 - 360 (F7.6 - 720)	F3.8 - 360 (F7.6 - 720)
Zoom	x55	x55	x55	x55
Angle Of View (Horizontal)	34.57°(17.67°)	34.57°(17.67°)	34.57°(17.67°)	34.57°(17.67°)
	1/2" Wide			
	Tele			
M.O.D.	5.0m	5.0m	5.0m	5.0m
Filter size	M95mm P=1.0	M95mm P=1.0	M95mm P=1.0	M95mm P=1.0
Back Focal Length	47.37mm	47.37mm	47.37mm	47.37mm
Dimensions (W x H x L)	132.0 x 120.5 x 298.5mm	132.0 x 120.5 x 298.5mm	132.0 x 120.5 x 298.5mm	132.0 x 120.5 x 298.5mm
Weight	4170g	4170g	4170g	4170g
Operating Temperature Range	-5 ~ 45 °C	-5 ~ 45 °C	-5 ~ 45 °C	-5 ~ 45 °C
Operating	Iris	Video Auto Iris or Motorized	Video Auto Iris or Motorized	DC Auto Iris
	Focus	Auto or Motorized W/Preset	Auto or Motorized W/Preset	Auto or Motorized W/Preset
	Zoom	Motorized W/Preset	Motorized W/Preset	Motorized W/Preset
Control	Controller	RS-232C	Controller	RS-232C

Auto Focus Motorized Zoom Lens

TM20Z1024AF

TM20Z1024AFP

TM20Z1024AF Series

1/2" 20X



Model Number	TM20Z1024AF	TM20Z1024AFP
Image Format	1/2"	1/2"
Mount	C	C
Focal Length	10 - 200mm	10 - 200mm
Aperture Range	F2.4 - 360	F2.4 - 360
Zoom	x20	x20
Angle Of View (Horizontal)	37.8°	37.8°
	1.8°	1.8°
M.O.D.	1.5m	1.5m
Filter size	M62mm P=0.75	M62mm P=0.75
Back Focal Length	11.1mm	11.1mm
Dimensions (W x H x L)	75.5 x 66.0 x 154.5mm	75.5 x 66.0 x 154.5mm
Weight	770g	780g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Video Auto Iris
	Focus	Auto or Motorized
	Zoom	Motorized
Note		Motorized W/Preset

TM20Z1536AF

TM20Z1536AFP

TM20Z1536AF Series

1/2" 20X



Model Number	TM20Z1536AF	TM20Z1536AFP
Image Format	1/2"	1/2"
Mount	C	C
Focal Length	15 - 300mm	15 - 300mm
Aperture Range	F3.6 - 360	F3.6 - 360
Zoom	x20	x20
Angle Of View (Horizontal)	23.4°	23.4°
	1.2°	1.2°
M.O.D.	2.5m	2.5m
Filter size	M62mm P=0.75	M62mm P=0.75
Back Focal Length	14.9mm	14.9mm
Dimensions (W x H x L)	75.5 x 66.0 x 154.5mm	75.5 x 66.0 x 154.5mm
Weight	770g	780g
Operating Temperature Range	-10 ~ 50 °C	-10 ~ 50 °C
Operating	Iris	Video Auto Iris
	Focus	Auto or Motorized
	Zoom	Motorized
Note		Motorized W/Preset

Auto Focus **IR** Corrected Motorized Zoom Lens

TM10Z8515AF-**IR**

TM10Z8515AFP-**IR**

TM10Z8515AF-**IR** Series

1/2" 10X

IR (Day/Night)



Model Number	TM10Z8515AF- IR	TM10Z8515AFP- IR
Image Format	1/2"	1/2"
Mount	C	C
Focal Length	8.5 - 85mm	8.5 - 85mm
Aperture Range	F1.5 - 360	F1.5 - 360
Zoom	x10	x10
Angle Of View (Horizontal)	41.5°	41.5°
	Wide	Wide
	Tele	Tele
M.O.D.	4.34°	4.34°
Filter size	1.5m	1.5m
Back Focal Length	M62mm P=0.75	M62mm P=0.75
Dimensions (W x H x L)	14.65mm	14.65mm
Weight	75.5 x 66.0 x 134.8mm	75.5 x 66.0 x 134.8mm
Operating Temperature Range	695g	700g
	-10 ~ 50 °C	-10 ~ 50 °C
Operating Iris	Video Auto Iris	Video Auto Iris
Operating Focus	Auto or Motorized	Auto or Motorized W/Preset
Operating Zoom	Motorized	Motorized W/Preset
Note	IR (Day/Night)	IR (Day/Night)

TM18Z8625AF-**IR**

TM18Z8625AFP-**IR**

TM18Z8625AF-**IR** Series

1/2" 18X

IR (Day/Night)



Model Number	TM18Z8625AF- IR	TM18Z8625AFP- IR
Image Format	1/2"	1/2"
Mount	C	C
Focal Length	8.6 - 154mm	8.6 - 154mm
Aperture Range	F2.5 - 360	F2.5 - 360
Zoom	x18	x18
Angle Of View (Horizontal)	40.7°	40.7°
	Wide	Wide
	Tele	Tele
M.O.D.	2.42°	2.42°
Filter size	1.8m	1.8m
Back Focal Length	M62mm P=0.75	M62mm P=0.75
Dimensions (W x H x L)	14.2mm	14.2mm
Weight	75.5 x 66.0 x 154.5mm	75.5 x 66.0 x 154.5mm
Operating Temperature Range	770g	780g
	-10 ~ 50 °C	-10 ~ 50 °C
Operating Iris	Video Auto Iris	Video Auto Iris
Operating Focus	Auto or Motorized	Auto or Motorized W/Preset
Operating Zoom	Motorized	Motorized W/Preset
Note	IR (Day/Night)	IR (Day/Night)

Machine Vision Lens

TC0814-3MPG

TC1214-3MPG

TC1614-3MPG

TC1214-3MP

3Megapixel
Machine Vision Series

NEW

2/3"



2/3"



2/3"



1/1.8"



Model Number	TC0814-3MPG	TC1214-3MPG	TC1614-3MPG	TC1214-3MP
Image Format	2/3"	2/3"	2/3"	1/1.8"
Mount	C	C	C	C
Focal Length	8mm	12mm	16mm	12mm
Aperture Range	F1.4-16	F1.4-16	F1.4-16	F1.4-22
Angle Of View (Horizontal x Vertical)	57.3° x 44.3°	39.6° x 30.2°	30.46° x 23.07°	32.38°
M.O.D.	0.1m	0.1m	0.1m	0.2m
Filter size	M27mm P=0.5	M27mm P=0.5	M27mm P=0.5	M27mm P=0.5
Back Focal Length	11.14mm	11.7mm	11.75mm	11.46mm
Dimensions (W x H x L)	φ30x47.5mm	φ30x47.5mm	φ30x43mm	φ29.5x35.7mm
Weight	75g	80g	80g	57g
Operating Temperature Range	-10~50°C	-10~50°C	-10~50°C	-20~55°C
Operating	Iris	Manual with Locking screw	Manual with Locking screw	Manual with Locking screw
	Focus	Manual with Locking screw	Manual with Locking screw	Manual with Locking screw
Note	3Mega Pixel	3Mega Pixel	3Mega Pixel	3Mega Pixel

TC1614-3MP

TC2514-3MP

TC3516-3MP

TC5028-3MP

3Megapixel
Machine Vision Series

NEW

2/3"



2/3"



2/3"



2/3"

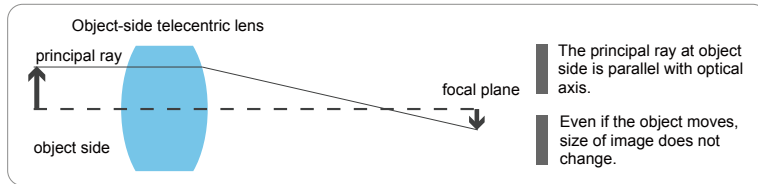


Model Number	TC1614-3MP	TC2514-3MP	TC3516-3MP	TC5028-3MP
Image Format	2/3"	2/3"	2/3"	2/3"
Mount	C	C	C	C
Focal Length	16mm	25mm	35mm	50mm
Aperture Range	F1.4-16	F1.4-16	F1.6-16	F2.8-22
Angle Of View (Horizontal)	30.99°	19.98°	14.74°	10.03°
M.O.D.	0.25m	0.25m	0.35m	0.8m
Filter size	M27mm P=0.5	M27mm P=0.5	M27mm P=0.5	M27mm P=0.5
Back Focal Length	14.59mm	11.52mm	11.88mm	21.06mm
Dimensions (W x H x L)	φ29.5x37.2mm	φ29.5x38.9mm	φ29.5x40.8mm	φ29.5x38.0mm
Weight	64g	56g	65g	55g
Operating Temperature Range	-20~55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C
Operating	Iris	Manual, with Locking screw	Manual, with Locking screw	Manual, with Locking screw
	Focus	Manual, with Locking screw	Manual, with Locking screw	Manual, with Locking screw
Note	3Mega Pixel	3Mega Pixel	3Mega Pixel	3Mega Pixel

Machine Vision Lens

Telecentric Macro Lens

- Object-side telecentric lens
- Straight and Co-axial type are available.
- $\phi 8\text{mm}$ and $\phi 12\text{mm}$ are available for co-axial lighting insertion connector.



W.D. 65mm Model

* () is for co-axial type.

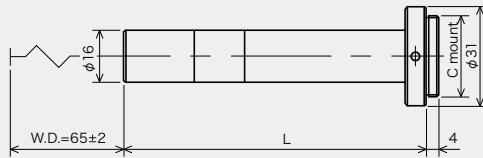
Type	Straight Co-axial	KCM-1-65C KCM-1D-65C	KCM-2-65C KCM-2D-65C	KCM-4-65C KCM-4D-65C
Magnification		1	2	4
O/I (Object to image distance)		177.7mm	145.4mm	158.8mm
W.D.		65.0mm	64.8mm	64.8mm
D.O.F.		1140 μ	300 μ	130 μ
Resolution		9.6 μ	5.1 μ	4.6 μ
Working F NO.		14.2	15	26.8
N.A		0.035	0.066	0.073
TV Distortion		0.11%	-0.03%	0.06%
Length		92.5mm	63.1mm	76.5mm
Weight*		60 g (69 g)	37 g (46 g)	40 g (49 g)
Sensor size (max.)		$\sim 1/2"$	$\sim 2/3"$	$\sim 2/3"$

W.D. 110mm Model

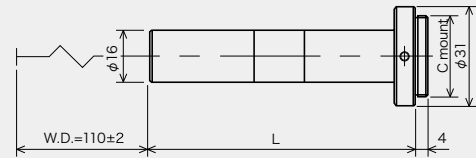
* () is for co-axial type.

Type	Straight Co-axial	KCM-1-110C KCM-1D-110C	KCM-2-110C KCM-2D-110C	KCM-4-110C KCM-4D-110C
Magnification		1	2	4
O/I (Object to image distance)		220mm	213.6mm	218.9mm
W.D.		110mm	110mm	110mm
D.O.F.		1600 μ	490 μ	210 μ
Resolution		13.4 μ	8.4 μ	6.99 μ
Working F NO.		20	24.6	41.49
N.A		0.025	0.04	0.048
TV Distortion		0.06%	-0.03%	0.06%
Length		82.55mm	86.1mm	91.12mm
Weight*		55g (64 g)	42g (52 g)	45g (55 g)
Sensor size (max.)		$\sim 1/2"$	$\sim 2/3"$	$\sim 2/3"$

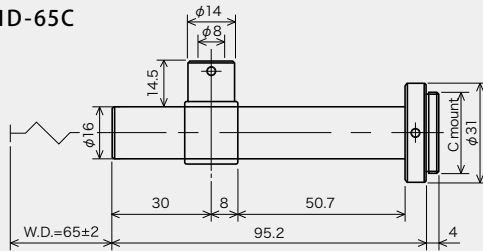
KCM-1-65C/KCM-2-65C/KCM-4-65C



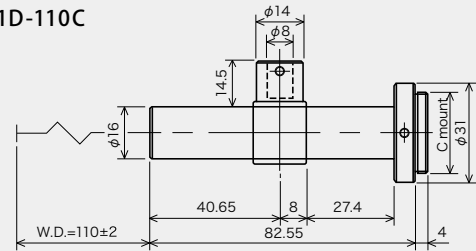
KCM-1-110C/KCM-2-110C/KCM-4-110C



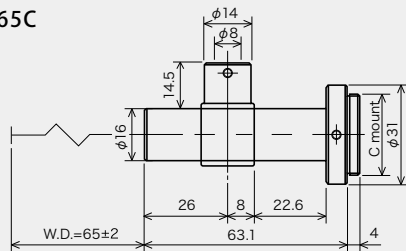
KCM-1D-65C



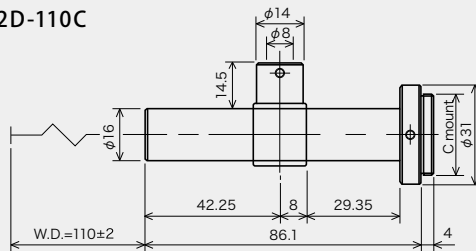
KCM-1D-110C



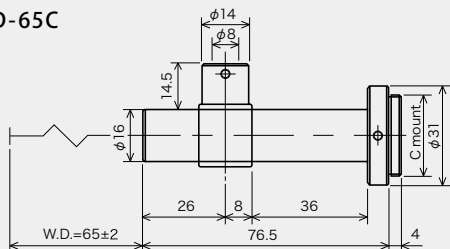
KCM-2D-65C



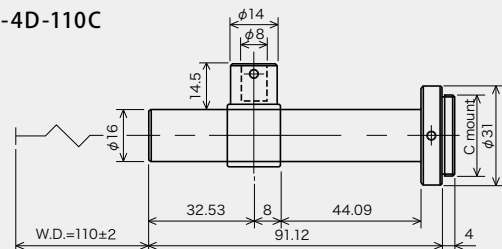
KCM-2D-110C



KCM-4D-65C



KCM-4D-110C



Motorized Zoom Lens: Specification



TM16Z7516 Series

TM16Z7516GAI
TM16Z7516GAIPN
TM16Z7516GAIDC
TM16Z7516GAIDCPN
TM16Z7516N
TM16Z7516NPN



TM22Z1022 Series

TM22Z1022AI
TM22Z1022AIPN
TM22Z1022GAI
TM22Z1022GAIPN
TM22Z1022GAIDC
TM22Z1022GAIDCPN
TM22Z1022N
TM22Z1022NPN



TM22Z1328 Series

TM22Z1328AI
TM22Z1328AIPN
TM22Z1328GAI
TM22Z1328GAIDC

Specification

	GAI / GAIPN (AI / AIPN)	GAIDC / GAIDCPN	N / NPN
● Iris			
Input Voltage	DC8V~16V	Open 4V~ Close 0.5V	DC6V~12V
Current Consumption	35mA (AI/AIPN: 30mA)	—	—
Input Signal	V, VS signal	—	—
Accuracy	± 15% Image signal	—	—
Sensitivity	0.5~1.0Vp-p Image signal	—	—
Response Speed	—	—	4.5/s
● Focus			
Input Voltage	DC6V~12V	DC6V~12V	DC6V~12V
Current Consumption	60mA	60mA	60mA
Controlled speed	6/s	6/s	6/s
● Zoom			
Input Voltage	DC6V~12V	DC6V~12V	DC6V~12V
Current Consumption	60mA	60mA	60mA
Controlled speed	6/s	6/s	6/s



TM33Z1015 Series

TM33Z1015AI
TM33Z1015AIPN
TM33Z1015N
TM33Z1015NPN
TM33Z1017GAIDCPN



TM33Z1540 Series

TM33Z1540AI
TM33Z1540AIPN
TM33Z1540N
TM33Z1540NPN

Specification

	AI / AIPN	GAIDC / GAIDCPN	N / NPN
● Iris			
Input Voltage	DC8V~16V	Open 4V~ Close 0.5V	DC8V
Current Consumption	35mA	—	20mA
Input Signal	V, VS signal	—	—
Accuracy	± 15% Image signal	—	—
Sensitivity	0.5~1.0Vp-p Image signal	—	—
Response Speed	—	—	7/s
● Focus			
Input Voltage	DC8V	DC8V	DC8V
Current Consumption	60mA	60mA	60mA
Controlled speed	9.5/s	9.5/s	9.5/s
● Zoom			
Input Voltage	DC8V	DC8V	DC8V
Current Consumption	80mA	80mA	80mA
Controlled speed	5/s	5/s	5/s



TM55Z1557 Series

TM55Z1557AIPN

Specification

	AIPN	NPN3
● Iris		
Input Voltage	DC8V~16V	DC6V~12V
Current Consumption	35mA	30mA
Input Signal	V, VS signal	—
Accuracy	± 15% Image signal	—
Sensitivity	0.5~1.0Vp-p Image signal	—
Response Speed	—	3/s (12V)
● Focus		
Input Voltage	DC6V~12V	DC6V~12V
Current Consumption	40mA	40mA
Controlled speed	6/s (12V)	6/s (12V)
● Zoom		
Input Voltage	DC6V~12V	DC6V~12V
Current Consumption	50mA	50mA
Controlled speed	4/s (12V)	4/s (12V)



TM55Z1038x2 Series

TM55Z1038AIPNx2
TM55Z1038GAIDCPNx2
TM55Z1038NPN3x2

Specification

	AIPNx2	GAIDCPNx2	NPN3x2
● Iris			
Input Voltage	DC8V~16V	Open 4V~ Close 0.5V	DC6V~12V
Current Consumption	35mA (AI/AIPN: 30mA)	—	—
Input Signal	V, VS signal	—	—
Accuracy	± 15% Image signal	—	—
Sensitivity	0.5~1.0Vp-p Image signal	—	—
Response Speed	—	—	4/s
● Focus			
Input Voltage	DC6V~12V	DC6V~12V	DC6V~12V
Current Consumption	40mA	40mA	40mA
Controlled speed	6/s (12V)	6/s (12V)	6/s (12V)
● Zoom			
Input Voltage	DC6V~12V	DC6V~12V	DC6V~12V
Current Consumption	50mA	50mA	50mA
Controlled speed	4/s (12V)	4/s (12V)	4/s (12V)
● 2X Extender			
Input Voltage	DC6V~12V	DC6V~12V	DC6V~12V
Current Consumption	40mA	40mA	40mA
Controlled speed	2/s (12V)	2/s (12V)	2/s (12V)

Motorized Zoom Lens: Connection & How to adjust

Cable Connection

● Auto iris

AI / AIPN		GAI / GAIPN		GAIDC / GAIDCPN	
Red	V +8V~16V DC	Red	V +8V~16V DC	Red	Damping Coil [-]
White	Video signal	White	Video signal	Black	Damping Coil [+]
Green	NC	Green	Level remote	White	Drive Coil [+]
Black	GND	Black	GND	Green	Drive Coil [-]

● DC Auto iris

N / NPN	
Brown [+]	Close
Yellow [-]	
Brown [-]	Open
Yellow [+]	

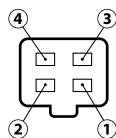
- AI/AIPN/GAI/GAIPN pin numbers are standard under JEITA E4-191J Connection.
- For GAIDC/GAIDCPN type, JEITA recommended E4-191J connector is equipped.

Iris

For wiring of the lead wires for the auto iris connector

DC Auto Iris connector for 4 pins

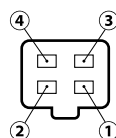
Please see the chart below and camera instruction manual.



Cable Color	Pin No.	Specification
Red	①	Damping Coil [-]
Black	②	Damping Coil [+]
White	③	Drive Coil [+]
Green	④	Drive Coil [-]

Video Auto Iris connector

Please see the chart below and camera instruction manual.



Cable Color	Pin No.	Specification
Red	①	V 8V~16V
White	③	Video signal
Green	②	NC
Black	④	GND

* Standard under JEITA E4-191

How to Adjust Flange Focal Length

- ① Please mount an ND filter on the front lens in order to opening iris maximally. (It makes the depth of field shallow.)
- ② Zoom to wide angle position and focus on infinitely for further object.
- ③ Focus on the object using flange focal distance adjustment of camera.
- ④ In case of defocusing at telephoto, focus on the object again.
- ⑤ Then, zoom to wide angle position and focus on the object again.
- ⑥ Repeat 4 and 5 until focusing correctly through the entire range.

If it does not work, please check the following points.

- A. Is the lens mount correct?
- B. Is any extension tube attached?
- C. Is the flange focal distance adjustment slipped?

Please contact us if you require support.

How to Adjust Iris

① Sensitivity (level adjustment)

- A. In case of bright image → rotate anticlockwise
- B. In case of dark image → rotate clockwise

* Don't keep turning the volume. Otherwise the volume might come off.

② Contrast (ALC adjustment)

- A. In case of high contrast → rotate anticlockwise
- B. In case of low contrast → rotate clockwise

* Don't keep turning the volume. Otherwise the volume might come off.

Focus

	far	near
Black	[+]	[-]
Red	[-]	[+]

Zoom

	wide	tele
Green	[+]	[-]
White	[-]	[+]

X2 extender

	2X IN	2X OUT
White/Red	[+]	[-]
Light Green	[-]	[+]

Preset Focus Zoom

Orange [+]	Pot Supply
Gray	Zoom Wiper
Purple [-]	Pot Return
Blue	Focus Wiper

Warning !

- Failure to observe the following instructions will cause critical accidents such as unpleasant electrical shock or fire.
- Don't apply high voltage.
- Don't dismantle the products.
- Don't observe the sun and strong light through the product. Otherwise it may cause blindness.
- In case when reeking of smoke or emitting heat from a product, stop the use of the product immediately. Otherwise, it may cause fire, shock or damage.

Precaution !

- Don't use thinner or alcohol to clean lens body.
- In case of use outside, embed a product in housing to prevent dust and water.

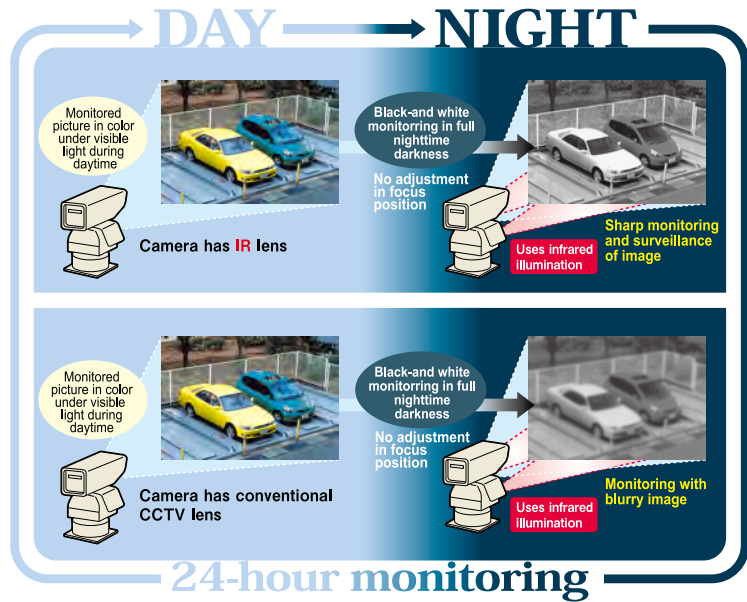
* Subject to change without notice.

What is IR lens?

General Info

Recent technological progress in CCTV cameras produces "Day/Night or High Sensitivity HAD Cameras". This makes it possible to offer day time monitoring in color and night time monitoring in black and white. It also allows monitoring in total darkness by using infrared illumination. But conventional CCTV lenses cannot focus completely in the infrared area.

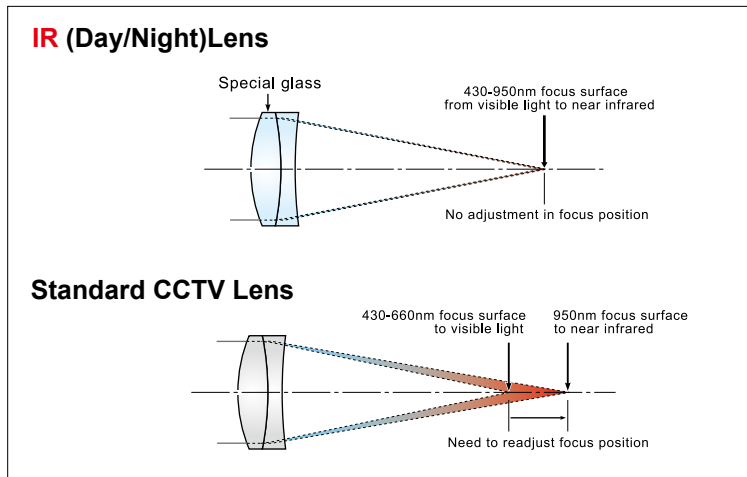
That's why TOKINA has developed the totally new Infrared Corrected (IR) Lens, which perfectly works with Day/Night or High Sensitivity HAD cameras. Using a surveillance system that combines the TOKINA IR lenses with Day/Night Cameras there is no need to re-adjust the focus position. Once focused, the image will remain perfectly sharp. Day, Night or infrared illuminated 24/7 in focus.



Near Infrared Lens Resolution

Since conventional CCTV lenses are designed for the visible spectrum, using in the (near) infrared, image will appear blurry even after re-adjusting focusing.

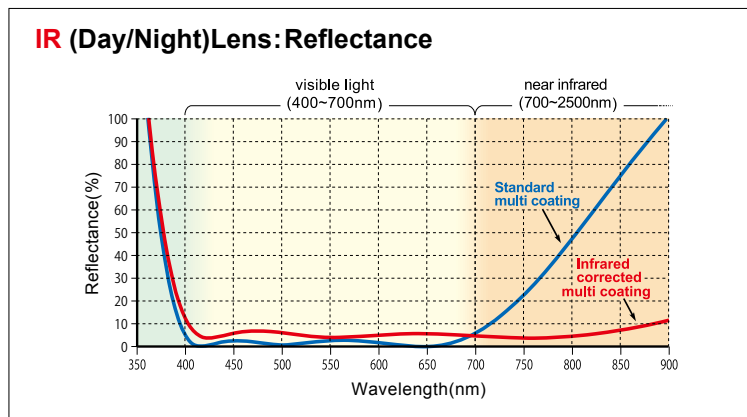
The TOKINA IR lens provides no focus shift between visible and near infrared light. Besides, it produces a clear image because it has extremely fine resolution in near infrared light.



Special Coating Technology: Great Influence on the Transmittance

Brightness of a lens is indicated by the F-number. As another factor affecting brightness in addition to the F-number there is a transmittance. Because a zoom lens is composed with many lens parts, the transmittance is an important factor. In order to increase transmittance between visible and near infrared light the special coating technology is needed.

High-performance IR corrected TOKINA lens was created by making full use of advanced design and production technologies. We proudly offer this lens which is one step ahead in the security field and representing TOKINA lens.



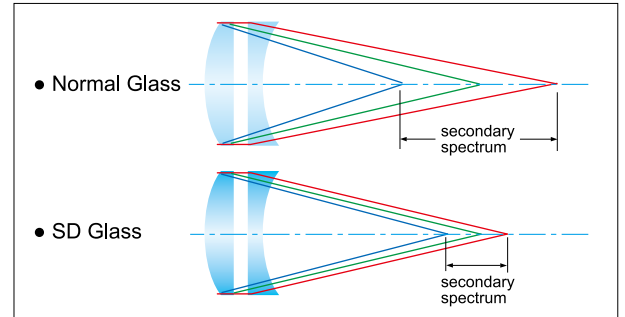
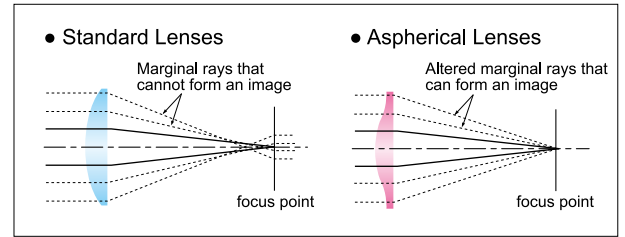
Feature

Aspherical Lens

Standard lenses are made from a combination of spherical lens elements. However, there can be problems with such lenses when light entering at the edges of the lens may not be perfectly focused at the same point as light entering at the center. That presents limits to performance in wide aperture and super wide-angle lenses. Tokina uses aspherical glass elements in many lenses. In addition to correcting spherical aberration, these lenses fully correct light quantity and image distortion and provide excellent results when used in combination with floating elements. Through technical cooperation with Hoya, Tokina has succeeded in producing high quality molded glass elements with a greater aspherical shape than any other lens so far. This technique is unparalleled in its technological sophistication and excellence.

SD (Super Low Dispersion)

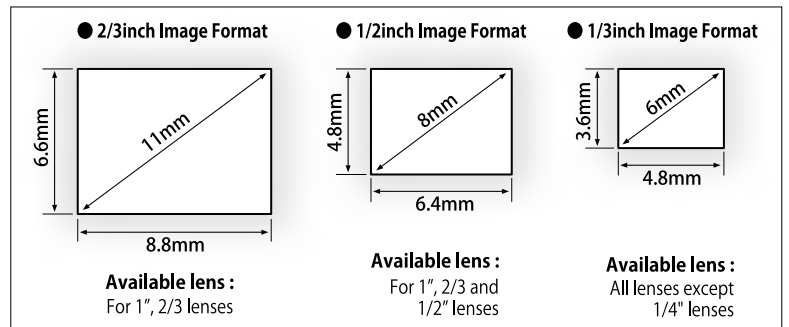
Lenses with the SD mark use Super-low Dispersion glass which minimizes the secondary spectrum caused by chromatic aberration. Basically, these lenses use FK01 and FK02 optical materials which give them SD (APO) quality. This provides excellent image quality in telephoto lenses of 200mm or more.



Glossary

Image Format

There are three common image format sizes including 2/3", 1/2" and 1/3" corresponding to approximate diagonal length of image sensor as shown in the figures. A large image format lens may be used for smaller format devices, and will overfill the image sensor. In case of using a small format lens on a larger size device it will result in vignetting. The field of view of a lens is determined by the focal length and the image format size. The angle of view becomes wider when the image format is larger.



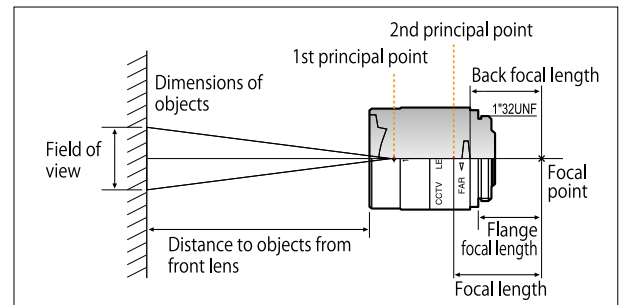
F number

The F-number is an index of the amount of light that passes through a lens. The smaller the number is, the greater the amount of light is. The relationship between F-number, focal length and effective diameter can be calculated by the following formula.

$$F\text{-number} = f/A \quad f = \text{focal length} \quad A = \text{effective diameter}$$

C-Mount & CS-Mount

CCTV lenses are usually used on C-mount or CS-mount. Both have same shape but with different flange focal length. C-mount has 17.526mm and CS-mount has 12.5mm as flange focal length.



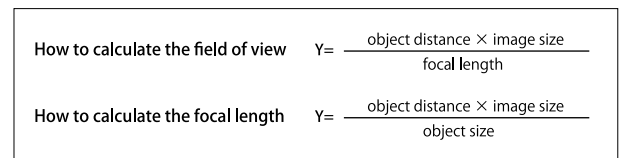
Back focal length & Flange focal length

Back focal length ... The distance between the last lens element of the lens group and focal point.

Flange focal length ... The distance between flange surface (the contact surface of camera and lens) and focal point.

Vari-focal lenses

Vari-Focal lenses provide different focal lengths for covering the most commonly used angles of view. Since the scope of images to be captured can be adjusted by changing focal lengths, there is no need for moving the camera or changing lenses even when different angles of view are desired.



Minimum object distance (M.O.D.)

The closest distance which a lens can focus on an object. Generally the smaller the focal length is, the shorter the M.O.D. is. This distance can be altered with use of extension tubes.

Focal Length

Focal length is the distance from the 2nd principal point to focal point. With short focal length the field of view will be larger. With long focal length, the field of view will be narrow.

Preset

This function allows a lens to feedback information regarding zoom and focus position to the controller when used with an appropriate controller. The controller will quickly scan a preselected scene and adjust focusing on the proper point without operator intervention.



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