

Zoom Lenses for Surveillance Systems 2022/23



















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Kenko Tokina continues to offer technical service and support of Ricoh/Pentax H55Z series.

ICON LIST

	Image format size				
	Zoom ratio				
	MegaPixel				
	IR lens				
	Auto Focus				
	DeFog / IR Bandpass Filter				

Ultra Long Range Zoom Lens

30X 50-1500mm TM30Z5050HD / 30X 25-750mm TM30Z2525HD

Optimum for border control, harbor facilities, oil plants, highway monitoring, etc.



TM30Z5050HDG AIDCPN-IR

2/3" f = 50 - 1500mm F 5.0

2/3" Angle of View W 10.01 - T 0.34°

1/2" Angle of View W 7.31 - T 0.25°



TM30Z2525HDG AIDCPN-IR

2/3" f = 25 - 750mm F 2.5

2/3" Angle of View W 19.76 - T 0.69°

1/2" Angle of View W 14.51 - T 0.50°

FEATURE

- Super-telephoto zoom lens for long range surveillance
- Full HD (25 - 750mm), HD (50 - 1500mm)
- 2/3" for best performance in low-light conditions
- IR correction, no focus shift through day and night
- DeFog by IR pass filter
- Internal filter wheel: 4 slots
- Thermal compensator for focus
- Presets on focus and zoom
- Remote iris control / manual iris override
- Optical axis adjustment
- No rear extender for best resolution



TM30Z5050HDG AIDCPN-IR (Tele)



TM30Z2525HDG AIDCPN-IR (DeFog OFF)



TM30Z2525HDG AIDCPN-IR (DeFog ON)

30X 50-1500mm TM30Z5050HD

TM30Z5050HDGAIDCPN-IR

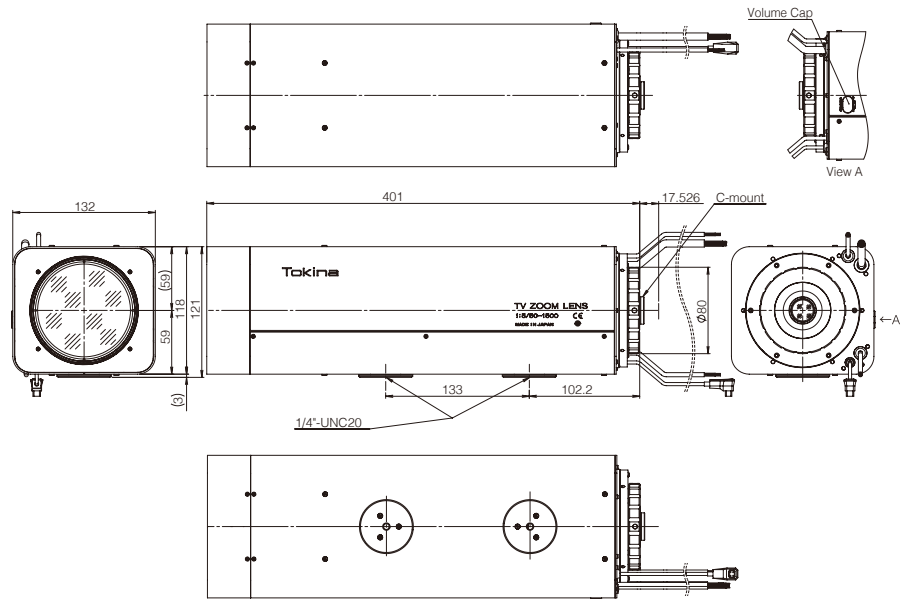


TM30Z5050HDGAIDCPN-IR (Wide)



TM30Z5050HDGAIDCPN-IR (Tele)

Distance: 2.2km



Model Name		TM30Z5050HDGAIDCPN-IR	
Image Format		2/3"	
Mount		C	
Focal Length		50 - 1500mm	
Aperture Range		F5.0 - T110 - Close	
Zoom		x30	
M.O.D.		5.0m	
Angle of View H x V	2/3"	Wide	10.01° x 7.53°
		Tele	0.34° x 0.26°
	1/2"	Wide	7.31° x 5.49°
		Tele	0.25° x 0.19°
Operating	Iris	DC Auto Iris	
	Focus	Motorized w/preset	
	Zoom	Motorized w/preset	
Iris (DC Auto)	Drive coil	190Ω ±10% (20°C)	
	Damp coil	1110Ω ±10% (20°C)	
	Input voltage	DC+6V~12V	
Focus	Current consumption	80mA or less	
	Controlled speed	Approx. 6 sec. (12V)	
	Control	DC 6-12V	
Zoom	Input voltage	DC+12V or less	
	Current consumption	90mA or less	
	Controlled speed	Approx. 5 sec. (12V)	
Filter size	M95mm P=1.0		
Back Focal Length	34.2mm		
Operating Temperature Range	-10°C ~ +50°C		
Dimensions (W x H x L)	132 x 121 x 401mm		
Weight	6300g		
Note	IR (Day/Night), MegaPixel, DeFog, Thermal compensator, 4 Filter Slots (default: clear glass, IR bandpass, ND 14.4%, ND 2.1%)		

30X 25-750mm TM30Z2525HD

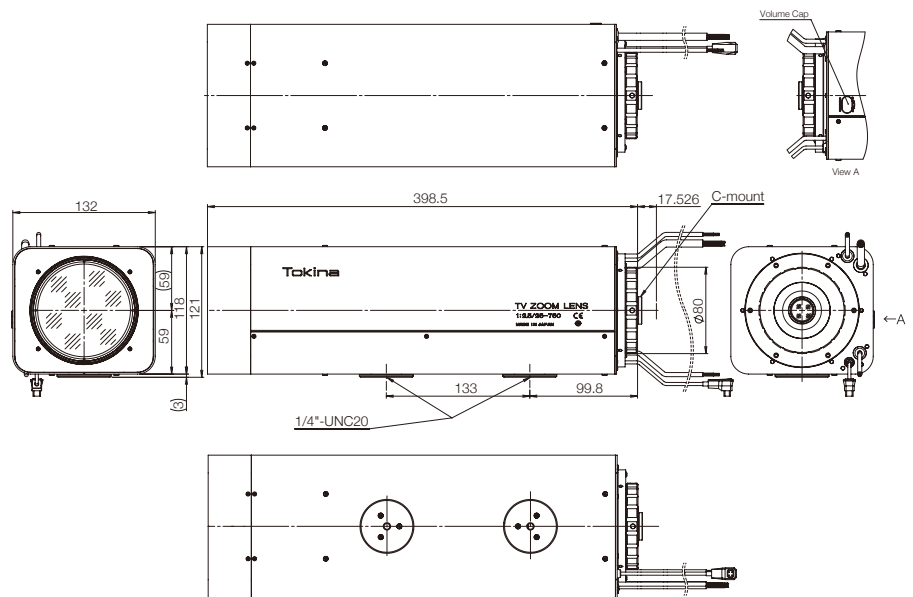
TM30Z2525HDGAIDCPN-IR



TM30Z2525HDGAIDCPN-IR (Wide)



TM30Z2525HDGAIDCPN-IR (Tele)
Distance: 7.6km



Model Name		TM30Z2525HDGAIDCPN-IR	
Image Format		2/3"	
Mount		C	
Focal Length		25 - 750mm	
Aperture Range		F2.5 - T170 - Close	
Zoom		x30	
M.O.D.		5.0m	
Angle of View H x V	2/3"	Wide	19.76° x 14.96°
		Tele	0.69° x 0.52°
	1/2"	Wide	14.51° x 10.94°
		Tele	0.50° x 0.38°
Operating	Iris	DC Auto Iris	
	Focus	Motorized w/preset	
	Zoom	Motorized w/preset	
Iris (DC Auto)	Drive coil		190Ω ±10% (20°C)
			Close to Open: 4.0V (20°C) Open to Close: 0.5V (20°C)
	Damp coil	1110Ω ±10% (20°C)	
Focus	Input voltage	DC+12V or less	
	Current consumption	80mA or less	
	Controlled speed	Approx. 6 sec. (12V)	
Control		DC 6-12V	
Zoom	Input voltage	DC+12V or less	
	Current consumption	90mA or less	
	Controlled speed	Approx. 5 sec. (12V)	
Filter size		M95mm P=1.0	
Back Focal Length		34.2mm	
Operating Temperature Range		-10°C ~ +50°C	
Dimensions (W x H x L)		132 x 121 x 398.5mm	
Weight		6300g	
Note		IR (Day/Night), 2MegaPixel, DeFog, Thermal compensator 4 Filter Slots (default: clear glass, IR bandpass, ND 9.5%, ND 0.9%)	

Compact & High Power 50X HD Zoom Lens

50X 10-500mm TM50Z1046HDGAIDCPN-IR

Optimum for highway, airway, vessel traffic control, border and critical area surveillance.



TM50Z1046HDGAIDCPN-IR

1/1.8" f = 10 - 500mm F 4.6

1/1.8" Angle of View W 36.54 - T 0.83°

1/2" Angle of View W 32.71 - T 0.74°

FEATURE

- Industry most compact 10-500mm 50x zoom lens
- Full HD resolution
- IR correction
- IR bandpass filter (other filter options on request)
- Preset on focus and zoom



TM50Z1046HDGAIDCPN-IR (Wide)



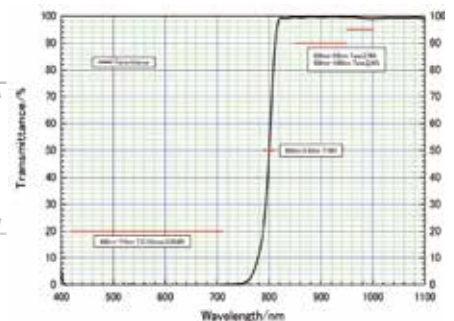
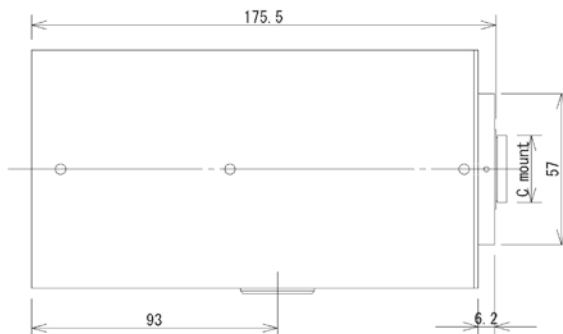
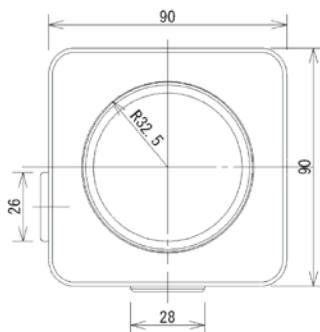
TM50Z1046HDGAIDCPN-IR (Tele)
Distance: 3.5km

50X 10-500mm TM50Z1046HDGAIDCPN-IR

TM50Z1046HDGAIDCPN-IR

1/1.8" 50X 2MP

IR De Fog

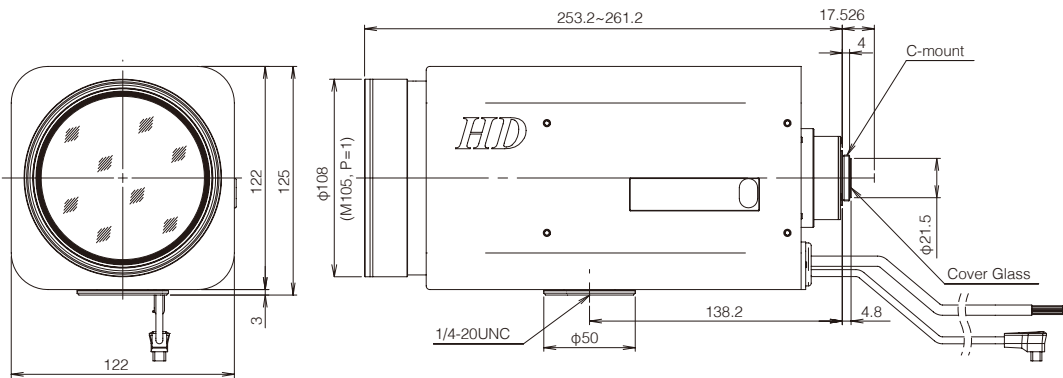


Model Name	TM50Z1046HDGAIDCPN-IR		
Image Format	1/1.8"		
Mount	C		
Focal Length	10 - 500mm		
Aperture Range	F4.6 - 360		
Zoom	x50		
M.O.D.	5.0m		
Angle of View H x V	1/1.8"	Wide	36.54° x 27.82°
		Tele	0.83° x 0.63°
	1/2"	Wide	32.71° x 24.82°
		Tele	0.74° x 0.56°
Operating	Iris	DC Auto Iris	
	Focus	Motorized w/preset	
	Zoom	Motorized w/preset	
Iris (DC Auto)	Drive coil		190Ω ±10% (20°C)
			Close to Open: 4.0V (20°C)
			Open to Close: 0.5V (20°C)
Focus	Damp coil		1150Ω ±10% (20°C)
		Input voltage	DC6V~DC12V
		Current consumption	30mA or less
		Controlled speed	Approx. 8 sec. (6V)
Zoom	Damp coil	Input voltage	DC6V~DC12V
		Current consumption	35mA or less
		Controlled speed	Approx. 6 sec. (6V)
		Filter size	M65mm P=0.75
Back Focal Length	36.5mm		
Operating Temperature Range	-10°C ~ +50°C		
Dimensions (W x H x L)	90 x 90 x 175.5mm		
Weight	Approx. 1640g		
Note	IR (Day/Night), 2MegaPixel, IR bandpass filter ~< 800nm		

33X 10-330mm TM33Z1015HD series

TM30Z1015HDGAIDCPN-MP-iAF

TM30Z1015HDGAIDCPN-MP



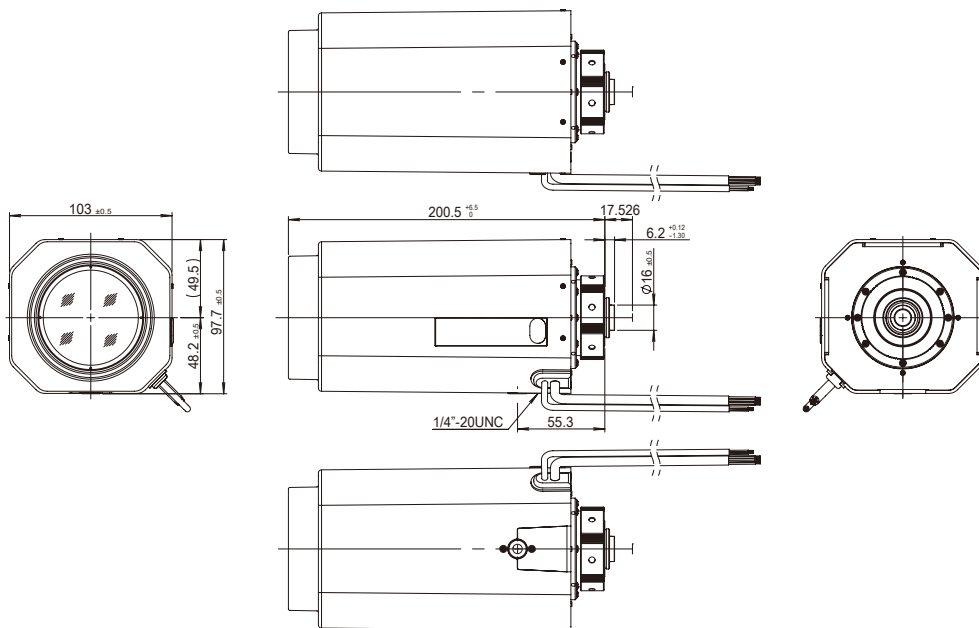
Auto Focus

Model Name		TM33Z1015HDGAIDCPN-MP-iAF(CONT)	TM33Z1015HDGAIDCPN-MP-iAF(232C)	TM33Z1015HDGAIDCPN-MP
Image Format			1/2"	
Mount			C	
Focal Length			10 - 330mm	
Aperture Range		F1.5 - 360		F1.5 - 560
Zoom			x33	
M.O.D.			2.9m	
Angle of View H x V	1/2"	Wide Tele	34.99° x 26.44° 1.13° x 0.85°	
	1/3"	Wide Tele	26.44° x 19.91° 0.85° x 0.64°	
Operating	Iris		DC Auto Iris	
	Focus		Motorized w/preset	
	Zoom		Motorized w/preset	
Iris (DC Auto)	Drive coil		190Ω ±10% (20°C)	
			Close to Open: 4.0V (20°C) Open to Close: 0.5V (20°C)	
	Damp coil		500Ω ±10% (20°C)	
Focus	Input voltage		DC8V	
	Current consumption		60mA or less	
	Controlled speed		Approx. 9.5 sec.	
Auto Focus	Input voltage		DC 12±0.5V	-
	Input signal		VBS or CVBS SIGNAL (NTSC or PAL)	-
	Current consumption		300mA or less (Standby), 140mA or less (Zoom or Focus on)	-
Control	Controller		RS-232C	-
Zoom	Input voltage		DC8V	
	Current consumption		80mA or less	
	Controlled speed		Approx. 5 sec.	
Filter size			M105mm P=1.0	
Back Focal Length			11.0mm	
Operating Temperature Range		-5°C ~ +45°C		-10°C ~ +50°C
Dimensions (W x H x L)			122 x 125 x 260.5mm	
Weight		3000g		2900g
Note			MegaPixel	

20X 12-240mm TM20Z1225HD series

TM20Z1225HDGAIDCPN-IR

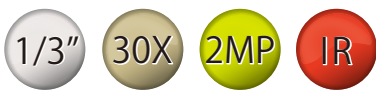
TM20Z1225HDGAIPN-IR



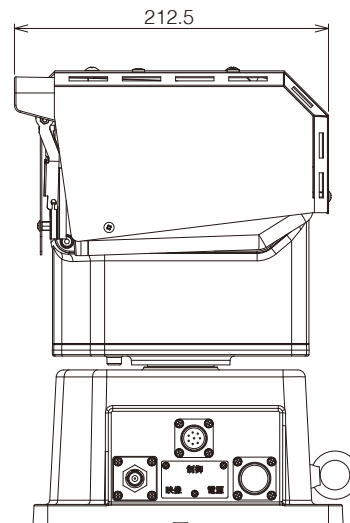
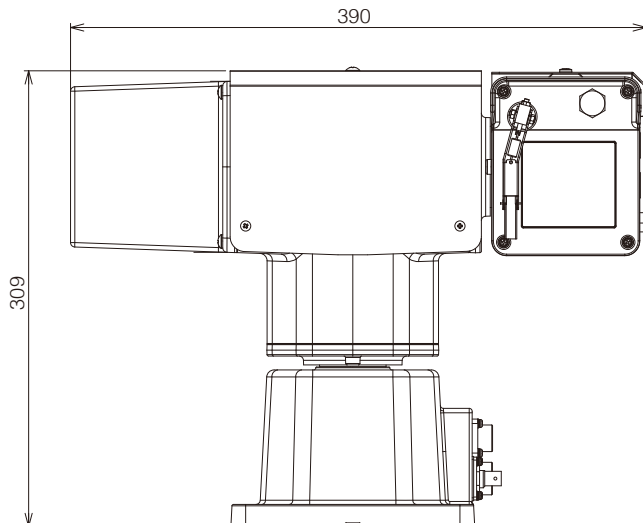
Model Name		TM20Z1225HDGAIDCPN-IR	TM20Z1225HDGAIPN-IR
Image Format			1/2"
Mount			C
Focal Length			12 - 240mm
Aperture Range			F2.5 - 540 - Close
Zoom			x20
M.O.D.			2.0m
Angle of View H x V	1/2"	Wide	29.16°x 22.07°
		Tele	1.56°x 1.17°
	1/3"	Wide	22.62°x 17.06°
		Tele	1.15°x 0.86°
Operating	Iris	DC Auto Iris	Video Auto Iris / Manual Override
	Focus		Motorized w/preset
	Zoom		Motorized w/preset
Iris (Video Auto/Manual Override)	Input voltage	-	DC6V-12V
	Current consumption	-	50mA or less
	Input signal	-	VS or V Signal
	Accuracy	-	±5% at Video Signal Level
	Sensitivity	-	0.5 ~ 1.0Vp-p
	Response speed	-	Approx. 5 sec.
Iris (DC Auto)	Drive coil	190Ω ±10% (20°C)	-
		Close to Open: 4.0V (20°C)	-
		Open to Close: 0.5V (20°C)	-
Focus	Damp coil	1150Ω ±10% (20°C)	-
	Input voltage		DC6V-12V
	Current consumption		50mA or less
	Controlled speed		Approx. 6 sec. (6V)
Zoom	Input voltage		DC6V-12V
	Current consumption		50mA or less
	Controlled speed		Approx. 7 sec. (6V)
Filter size			M67mm P=0.75
Back Focal Length			13.029mm
Operating Temperature Range			-10°C ~ +50°C
Dimensions (W x H x L)			103 x 97.5 x 200.5mm
Weight			1600g
Note			IR (Day/Night), 2MegaPixel

Full HD Compact PTZ Camera

APTO-111 VORTY



- 360° Endless Panning
- High-Definition HD-SDI Output
- Near IR corrected (Day/Night)
- Auto Focus
- High Speed Pan-Tilt
Max Speed: Horizontal 180°/sec
Vertical 90°/sec
- Variety of protocols applicable



Specification : [PT: APTO-111 VORTY]	
Installation	Outdoor Upright
Comm. IF/Protocol	RS-422 (RS-485) / Pelco D and others
Housing Equipments	Wiper:Remote
	Defroster / fan / heater: Auto Control Optical 30x AF module
Water Proof	JIS C0920 Jet proof type compliant IP66
Wind Resistance	Normal ~ 20m/s
	Operation ~ 40m/s (Manual Control)
	Non-Dest. ~ 60m/s
Temperature	-10 ~ +50°C (with power, not frozen)
Humidity	30 ~ 90%RH (Relative, no condensation)
Color	N7 (Polyurethane paint) *option available
Power	AC100V, 50Hz / 60Hz
Weight	Approx. 13kg
Option	<ul style="list-style-type: none"> • Communication I/F, Salt Resistance etc. • LED Illuminator • Visible and Near IR

Specification : [Camera]	
Image Sensor	1/3" CMOS 2MegaPixel
	1,920(H)x1,080(V) 30p/60i/59.94i
Video Output	HD-SDI(SMPTE292M)
Lens	f = 4.4 - 132mm F1.4 - 4.6 Optical 30x
Angle of View	H: 63.4° ~ 2.3° V: 37.3° ~ 1.3°
Min. Illumination	0.4Lux color 1/30sec F1.4 50IRE
	0.01Lux BW 1/8sec F1.4 50IRE
Other Function	Image Stabilizer, DeFog, HLC (Halation Control)

Specification : [Pan-Tilt]	
Pan-Tilt Range	H:360° Continuous V:±90°
PT Speed	H Max. 180°/sec
	V Max. 90°/sec
Precision	H+V:less than ±0.3°
No. of presets	Max. 255 (including home position)

Lens Adjustment

■ How to Adjust Shift Mount (Match Optical Axis to the Sensor Center)*

- 1 Place the shift mount adjustment target 13m from the front of the lens.
- 2 Loosen slightly the lock screws (check lens specifications for details).
- 3 Rotate the camera until the image is straight on the monitor.
- 4 With the lens set at wide adjust the tripod head until the centre of the cross hairs lines up with the centre of the target.
- 5 Zoom the lens to telephoto position and refocus the lens if it has gone out of focus. Once again adjust the tripod head until the centre of the cross hairs lines up with the centre of the target.
- 6 Zoom wide. The centre of the cross hairs will no longer be on the centre of the target. Place 2 Drivers in opposite Keys and rotate them in different directions. A clockwise rotation of a Driver will cause the cross hairs to move in the direction that Driver is pointing. The opposing Driver must move in an anti-clockwise direction to allow the cross hairs to move. When correctly aligned the box at the centre of the cross hairs should have alternating black/white boxes as below.



- 8 Zoom the lens to Telephoto. The centre of the cross hairs will no longer be at the centre of the target. Adjust the tripod to correctly centre the cross hairs on the target.
- 9 Zoom wide. If the centre of the cross hairs is not at the centre of the target adjust the shift mount with the Drivers.
- 10 Repeat steps 5 and 6 until the deviation of the centre of the cross hairs from the centre of the target is minimal.
- 11 When satisfied that the shift mount is correctly adjusted confirm that the Mount Setting Ring is tight and tighten the 4 lock screws (see N2) with 30N·cm torque driver.
- 12 Loosen the Mount Setting Ring slightly and confirm that the camera rotates smoothly.
- 13 Tighten the Mount Setting Ring and once again confirm that the cross hairs stay on the centre of the target whilst zooming from Telephoto to Wide.

■ How to Adjust Flange Focal Length / Back-Focus Adjustment

- 1 Open iris to its maximum. (It makes the depth of field shallow.)
- 2 Zoom to wide angle position and focus on the object in the infinity.
- 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?

For more technical information, please, visit our website <https://kenkotokina-cctv.com/service/>



*This function is available on selected lenses only.

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