

# SN-TPT6436PA-F

**Explosion-proof Bi-spectrum PTZ Camera** 



#### **Key Features**

- 640 × 512 resolution, 12 μm, VOx UFPA, NETD ≤ 40 mK
- Thermal: 9/15/25/35/50mm fixed lens optional; Visible: 30x optical zoom module
- Detection capabilities: Human/vehicle, smoker, smoke & flame, fire point detection
- Intelligent analytics: Intrusion, single/double line crossing, loitering, wrong-way,
   enter/leave area detection, smart motion detection, and people counting
- Support temperature monitoring and exception alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature range: -20°C to 150°C (-4°F to 302°F), Accuracy: ±2°C / ±2%
- Material: 316L Stainless steel
- NDAA Compliance, IP68





## Specification

Camera	Thermal	Visible	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/2.8" STARVIS CMOS	
Resolution	Sensor is 640×512. Image can be scaled up to 1280×1024	2592 (H)×1944 (V), 5MP	
Pixel Pitch	12 μm		
Spectral Range	8 to 14 μm		
NETD	≤ 40mK		
Min. Illumination		Color: 0.07 Lux @(F1.6, AGC ON), B/W: 0.007 Lux (F1.6, AGC ON)	
Shutter Speed		1/5 to 1/100,000s	
Lens Type	Fixed lens	30x optical zoom	
Focal Length	9 mm, 15 mm, 25 mm, 35 mm, 50 mm optional	5.3 to 159 mm	
Max. Aperture	F1.0	F1.6	
Focus Control	Free focus	Auto/Manual/Semi-automatic	
Field of View (FOV)	9 mm: H: 48°, V: 38° 15 mm: H: 29°, V: 23° 25 mm: H: 17°, V: 14° 35 mm: H: 12°, V: 10° 50 mm: H: 8°, V: 7°	H: 56.3° to 2.7°, V: 42.4° to 2.0°	
Intelligent Analytics			
Al Multi-Target	Human and Vehicle detection	Face / Human / Vehicle detection and capture	
Intelligent Analysis	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Enter Area, Leave Area, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)	
Smoke and Flame Detection		Support	
Smoker Detection	Support		
Fire Spot Detection	Support		
People Counting	Support	Support	
Video and Audio			
Stream/Frame Rate	Stream1: 1280×1204, 1280×720, 704×576 @25fps Stream2: D1, CIF @25fps	Stream1: 2592×1944, 2592×1520, 1920×1080, 1280×720 @25/30fps Stream2: D1, VGA, CIF @25/30fps Stream3: VGA, CIF, QVGA @25/30fps	
Bit Rate Control	CBR/VBR	CBR/VBR	
Bit Rate	Stream1: 100 Kbps to 8 Mbps, Stream2: 100 Kbps to 6 Mbps	Stream1: 200 kbps to 12 Mbps Stream2: 100 kbps to 6 Mbps Stream3: 100 kbps to 3 Mbps	
Region of Interest	Off/On (8 Zone, Rectangle)	Support	
		0.744 A   0.744   0.704	
Audio Compression	G.711 A-law, G.711 μ-law, PCM	G.711 A-law, G.711 μ-law, PCM	

Image Setting	Brightness, Contrast, Sharpness	Brightness, Saturation, Contrast, Sharpness
Mirror	Horizontal / Vertical / Horizontal+Vertical	Horizontal / Vertical / Horizontal+Vertical
Pseudo-color Setting	Up to 17 colors (White-hot / Black-hot / Rainbow / Iron red / HSV /Bone / Cool / Copper / Fire-hot / Pink / Spring / Summer / Autumn / Winter / Jet / Flame / Rose -Bengal)	
FFC Control	Auto / Manual	
White Balance		Auto / Tungsten / Fluorescent / Daylight / Shadow / Manual
Day/Night		Auto / Day mode / Night mode / Timer
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement		WDR, HLC, BLC, Defog
Wide Dynamic Range		True WDR
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Support	Support
Illuminator		IR Range: Up to 100 m (328.08 ft.)
Thermal Function		
Temperature Range	-20°C to 150°C (-4°F to 302°F)	
Accuracy	±2°C / ±2%	
Temperature Detection	3 temperature measurement rule types, 20 rules in total	, 1 full screen, 19 others (spot, areas, line).
Temperature Alarm	Temperature difference alarm, Threshold alarm, Tempe	rature rise alarm
Temperature Display	Display in the lower left corner; follow the cursor display average temperature	of the highest temperature, lowest temperature or
Response Time	≤ 30ms	
PTZ		
Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: +90° to -90°	
Pan/Tilt Speed	Pan: 0.1° to 30°/s, Tilt: 0.1° to 20°/s	
Wiper	Support	
Preset Accuracy	≤ 0.2°	
Presets	400	
Scan	8 scans	
Patrol	12 patrols, up to 32 presets per patrol	
Track	6 tracks	
3D Positioning	Support	
Speed Setup	Auto/Manual (0-8)	
Power Off Memory	Support	
Idle Motion	The time can be set (1-240 minutes), and functions such	as preset positions, patrols, scans, and tracks can be ru
Event		
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Inp	ut, Disk alarm, Network alarm, Abnormal sound

Event Actions         Alarm record, Alarm output, FTP upload, SMTP upload, Audible alarm output           Network           Prodocos         IPAGINOS, INTER/INTERS, DNS, DDNS, DHCP, PPOSE, RTSP/ RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QS, Interoperability         ONNE (Profile ST/IS/M), SDN. CGI           Max Concurrent Streams         32 users, 3 levels: Administrator, Operator, Media user           Security         1P address filter, HTTPS, Illegal login lock, IEEE 802.1x           Web Viewer         4 Elthornet (10/100 Base-1) RI-4S Connector           Network Interface         1 Ethornet (10/100 Base-1) RI-4S Connector           Audio Interface         2 Ech input, 1ch output           Alarm Interface         3 ENC (CVBS output of Visible)           Reset Button         3 Bill-In           SD Card Slot         Built-in Micro SD card slot, up to 512 GB           Seneral         English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Appainese, Korean, Default, English           Power Supply         100 to 240 VAC           Power Supply         40°C to 60°C (-40°Te to 140°F), Hunvidty, 290% RH (non-condensing)           Cet-MC         CECAC           Cet Card Criter of 15 Subport is         11 Scotz, Scotz, NT ICC 61000-63, EN IEC 61000-32, EN 55035, EN 50130-4 FCC 40°C 40°C 40°C (-40°Te to 140°F), Hunvidty, 290% RH (non-condensing)           Material         50°C 42°					
Protocols (Pr4/Pr6, HTTP/HTTP5, DNS, DNNS, DHCP, PPPDE, RTSP/RTCP/RTP, TCP/UDP, NTP, ARP, UPIPP, FTP, SMTP, QoS, ICMP, IGMP, SMCP, SMCP, SMDP, Multicast (CMP, IGMP, SMCP, SMCP, SMDP, Multicast (SMCP) (SMCP, SMCP, SMCP, SMCP, SMDP, Multicast (SMCP) (SMCP) (SMCP, SMCP, SMCP, SMCP, SMCP, SMCP, SMCP) (SMCP) (SMCP	Event Actions	Alarm record, Alarm output, FTP upload, SMTP upload, Audible alarm output			
IctMP, ICMMP, SMMP, 802.1x, SNMP, Multicast Intercoperability ONVIF (Profile S/T/G/M), SDX, CGI  Max Concurrent Streams 10 channels  10 channels  Security IP address filter, HTTPS, Illegal Togin Tock, IEEE 802.1x  Web Viewer <ili>Illegal Togin Tock, IEEE 802.1x  Web Viewer <ili>Illegal Togin Tock, IEEE 802.1x  Web Viewer <ili>Interface III, Chrome, Firefox, Microsoft Edge  Interface  Network Interface 1 Ethernet (10/100 Base-T) RJ-45 Connector  Audio Interface 2 1ch Input, 1ch output  Alarm Interface 3 Sch Input, 1ch output  Alarm Interface 3 Sch Input, 1ch output  BNC (ICVBS output of Visible)  Roset Button 4 Built-in  SD Card Slot 4 Built-in  SD Card Slot 8 Built-in  SD Card Slot 8 Built-in Micro SD card slot, up to 512 GB  Centeral  Language 2 English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English  Power Consumption Max 75 W  Working Temperature/Humidity 40°C to 60°C (-40°E to 140°E), Humidity: 590% RH (non-condensing)  CE-EMC  Certifications 567 x 360 x 494mm (22.66 x 14.17 x 19.45 inch)  Naterial 505236 View Total Subpart 8  Ingress Protection IP68  Material 505236 Thermal Focal Length: 5.3 to 159mm  SN-TP16436PA-F93-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-25E30 Thermal Focal Length: 53mm, Optical Focal Length: 5.3 to 159mm</ili></ili></ili>	Network				
Max Concurrent Streams 10 channels  User/Host Level 32+ users, 3 levels: Administrator, Operator, Media user  Security IP address filter, HTTPS, Illegal login lock, IEEE 802.1x  Web Viewer 4 Ell, Chrome, Firefox, Microsoft Edge  Interface  Network Interface 1 Ethernet (10/100 8ase-T) RI-45 Connector  Audio Interface 1 Ethernet (10/100 8ase-T) RI-45 Connector  Audio Interface 3 Ethernet (10/100 8ase-T) RI-45 Connector  Audio Interface 3 Ethernet (10/100 8ase-T) RI-45 Connector  Audio Interface 5 Ethernet (10/100 8ase-T) RI-45 Connector  Audio Interface 5 Ethernet (10/100 8ase-T) RI-45 Connector  Audio Interface 5 Ethernet (10/100 8ase-T) RI-45 Connector  BNC Interface 1 BNC (CVBS output of Visible)  Reset Button 8 Built-In  SDC Card Slot 8 Built-In  SDC Card Slot 8 Built-In  SDC Card Slot 8 Built-In  Power Supply 100 100 2040 VAC  Power Consumption Max 75 W  Working Temperature/Humidity 40°C to 60°C (-40°F to 140°F), Humidity: 290% RH (non-condensing)  CE-EMC  Certifications CE-EMC  CE-EMC C-10 Sod 2, EN EC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4  FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 50 × 18 (11.64 Ib) 50 × 18 × 11.54 × 19.45 inch)  Net Weight 50 × 18 × 18 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 × 18 × 19.55 ×	Protocols				
Security   S2+ users, 3 levels: Administrator, Operator, Media user	Interoperability	ONVIF (Profile S/T/G/M), SDK, CGI			
Security IP address filter, HTTPS, Illegal login lock, IEEE 802.1x  Web Viewer ciE11, Chrome, Firefox, Microsoft Edge  Interface  Network Interface 1 Ethernet (10/100 Base-T) RJ-45 Connector  Audio Interface 1 Chinput, 1ch output  Alarm Interface 5 Chinput, 1ch output  RS-485 Support  BNC (Interface 1 BNC (CVBS output of Visible)  Reset Button Bull-in  SD Card Slot Bull-in Micro SD card slot, up to 512 GB  General  Language Japanese, Korean. Default: English  Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity 40°C to 60°C (-40°F to 140°F), Humidity: \$90% RH (non-condensing)  Certifications CE-EMC - EN S5032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4  FCC 47 CFR Part 13 Subpart 8  Ingress Protection IPB8  Material SU3316.  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Whorling Temperature/Homidity Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-Z5E30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-Z5E30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-Z5E30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-Z5E30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-Z5E30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm	Max Concurrent Streams	10 channels			
Interface	User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user			
Network Interface 1 Ethernet (10/100 Base-T) RI-45 Connector Audio Interface 1 Ethernet (10/100 Base-T) RI-45 Connector Audio Interface 1 Ethirput, 1ch output  Alarm Interface 5 Sch input, 1ch output  RS-485 Support  BNC Interface 1 BNC (CVBS output of Visible)  Reset Button Built-in SD Card Slot Built-in Micro SD card slot, up to 512 GB  General  English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English Power Supply 100 to 240 VAC  Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40° to 60°C (-40°F to 140°F), Humidity: 90% RH (non-condensing)  CE-EMC -EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Where Medel Description  SN-TPT6436PA-F09-7SE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-7SE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-7SE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-7SE30 Thermal Focal Length: 55mm, Optical Focal Length: 5.3 to 159mm	Security	IP address filter, HTTPS, Illegal login lock, IEEE 802.1x			
Audio Interface 1ch input, 1ch output 1ch ou	Web Viewer	<ie11, chrome,="" edge<="" firefox,="" microsoft="" td=""></ie11,>			
Audio Interface Sch input, 1ch output  Alarm Interface Sch input, 1ch output  RS-485 Support  BNC Interface 1 BNC (CVBS output of Visible)  Reset Button Built-in Micro SD card slot, up to 512 GB  General  English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean, Default: English  Power Supphy 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity 40°C to 60°C (-40°F to 140°F), Humidity: \$90% RH (non-condensing)  Certifications Cere Mc - EN S5032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection P68  Material Su316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 552 kg (114.64 lb)  Ordering Information  World Description  SN-TP16436PA-F15-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F25-ZSE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm	Interface				
Alarm Interface Sch input, 1ch output  RS-485 Support  BNC Interface 1 BNC (CVBS output of Visible)  Reset Button Built-in SD Card Slot Built-in Micro SD card slot, up to 512 GB  General  Language Inglish, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: s90% RH (non-condensing)  Certifications CE-EMC - N. S5032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Wodel Description  SN-TP16436PA-F09-ZSE30 Thermal Focal Length: 5mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TP16436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm	Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector			
RS-485 Support  BNC Interface 1 BNC (CVBS output of Visible) Reset Button Built-in SD Card Slot Built-in Micro SD card slot, up to 512 GB  General  Language Inglish, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean, Default: English Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)  Certifications CE-EMC - EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47°C FR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Wodel Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm	Audio Interface	1ch input, 1ch output			
BNC Interface 1 BNC (CVBS output of Visible)  Reset Button Built-in  SD Card Slot Built-in Micro SD card slot, up to 512 GB  General  Language Japanese, Korean. Default: English Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: \$90% RH (non-condensing)  Certifications CE-EMC -EN \$5032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4  FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 x 360 x 494mm (22.66 x 14.17 x 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Wodel	Alarm Interface	5ch input, 1ch output			
Reset Button Built-in SD Card Slot Built-in Micro SD card slot, up to 512 GB  General  Language English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)  CE-EMC - EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Wodel Description  SN-TPT6436PA-F05-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm	RS-485	Support			
SD Card Slot  Built-in Micro SD card slot, up to 512 GB  General  Language	BNC Interface	1 BNC (CVBS output of Visible)			
English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English  Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: s90% RH (non-condensing)  CE-EMC -EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Reset Button	Built-in			
English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English  Power Supply  100 to 240 VAC  Power Consumption  Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)  CE-EMC -EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection  IP68  Material  SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model  Description  SN-TPT6436PA-F09-ZSE30  Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30  Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	SD Card Slot	Built-in Micro SD card slot, up to 512 GB			
Language Japanese, Korean. Default: English  Power Supply 100 to 240 VAC  Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)  Certifications CE-EMC -EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	General				
Power Consumption Max 75 W  Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)  CE-EMC -EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Language				
Working Temperature/Humidity -40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)  CE-EMC -EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection  IP68  Material  SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model  Description  SN-TPT6436PA-F09-ZSE30  Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30  Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Power Supply	100 to 240 VAC			
CE-EMC - EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection  IP68  Material  SUS316L  Dimensions  567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight  52 kg (114.64 lb)  Ordering Information  Model  Description  SN-TPT6436PA-F09-ZSE30  Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30  Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30  Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Power Consumption	Max 75 W			
Certifications - EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B  Ingress Protection IP68  Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Working Temperature/Humidity	-40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)			
Material SUS316L  Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-ZSE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Certifications	- EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4			
Dimensions 567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)  Net Weight 52 kg (114.64 lb)  Ordering Information  Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Ingress Protection	IP68			
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Ordering InformationModelDescriptionSN-TPT6436PA-F09-ZSE30Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mmSN-TPT6436PA-F15-ZSE30Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mmSN-TPT6436PA-F25-ZSE30Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mmSN-TPT6436PA-F35-ZSE30Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Dimensions	567 × 360 × 494mm (22.66 × 14.17 × 19.45 inch)			
Model Description  SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-ZSE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Net Weight	52 kg (114.64 lb)			
SN-TPT6436PA-F09-ZSE30 Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F15-ZSE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm  SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Ordering Information				
SN-TPT6436PA-F15-ZSE30 Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	Model	Description			
SN-TPT6436PA-F25-ZSE30 Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	SN-TPT6436PA-F09-ZSE30	Thermal Focal Length: 9mm, Optical Focal Length: 5.3 to 159mm			
SN-TPT6436PA-F35-ZSE30 Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm	SN-TPT6436PA-F15-ZSE30	Thermal Focal Length: 15mm, Optical Focal Length: 5.3 to 159mm			
	SN-TPT6436PA-F25-ZSE30	Thermal Focal Length: 25mm, Optical Focal Length: 5.3 to 159mm			
SN-TPT6436PA-F50-ZSE30 Thermal Focal Length: 50mm, Optical Focal Length: 5.3 to 159mm	SN-TPT6436PA-F35-ZSE30	Thermal Focal Length: 35mm, Optical Focal Length: 5.3 to 159mm			
	SN-TPT6436PA-F50-ZSE30	Thermal Focal Length: 50mm, Optical Focal Length: 5.3 to 159mm			

## **Thermal DRI Range Table**

Note: The table is only for reference and the performance may vary according to different environment.

Note: The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

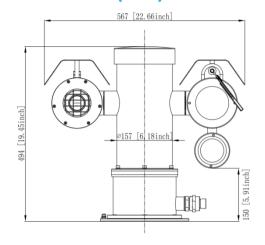
DRI Distance Table					
Focal Length	9 mm	15 mm	25 mm	35 mm	50 mm
Detection Distance (Humans: 1.8×0.5m)	375 m (1230.3 ft)	625 m (2,050.5 ft)	1,042 m (3,418.6 ft)	1,458 m (4,783.5 ft)	2,083 m (9,196.2 ft)
Detection Distance (Vehicles: 4×1.5m)	1,150 m (3,773 ft)	1,917 m (6,289.3 ft)	3,194 m (10,479 ft)	4,472 m (14,672 ft)	6,389 m (20,961 ft)
Recognition Distance (Humans: 1.8×0.5m)	94 m (308.4 ft)	156 m (511.8 ft)	260 m (853 ft)	365 m (1,197.5 ft)	521 m (1,709.3 ft)
Recognition Distance (Vehicles: 4×1.5m)	288 m (944.9 ft)	479 m (1,571.5 ft)	799 m (2,621.4 ft)	1,118 m (3,668 ft)	1,597 m (5,239.5 ft)
Identification Distance (Humans: 1.8×0.5m)	47 m (154.2 ft)	78 m (255.9 ft)	130 m (426.5 ft)	182 m (597.1 ft)	260 m (853 ft)
Identification Range (Vehicles: 4×1.5m)	144 m (472.4 ft)	240 m (787.4 ft)	399 m (1,309 ft)	559 m (1,834 ft)	799 m (2,621.4 ft)

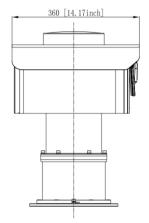
#### **Thermal Smart Detection Distance Range Table**

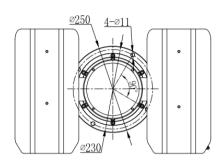
**Note**: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

Detection Range Table					
Focal Length	9 mm	15 mm	25 mm	35 mm	50 mm
VCA Detection Distance (Human: 1.8 × 0.5 m)	40 m (131.2 ft)	65 m (213.3 ft)	101 m (331.4 ft)	160 m (524.9 ft)	235 m (771 ft)
VCA Detection Distance (Front/Rear of Vehicle: 4×1.5 m)	75 m (246.1 ft)	130 m (426.5 ft)	230 m (754.6 ft)	320 m (1,049.9 ft)	400 m (1,312.3 ft)
Temperature Measurement (Object: 0.2 × 0.2m)	30 m (94.4 ft)	50 m (164 ft)	83 m (272.3 ft)	117 m (383.9 ft)	167 m (547.9 ft)
Fire Detection (Object: 0.2 × 0.2m)	75 m (246.1 ft)	125 m (410.1 ft)	208 m (682.4 ft)	292 m (958 ft)	417 m (1,368.1 ft)

### **Dimensions (mm)**







#### **Accessories**

#### **Optional:**



SN-BK402A-SS Wall Mount



SN-BK400-SS(P/F/D)
Junction Box



SN-BK404 Pole Mount



SN-CPL10A-SS Washing Tank



SN-BK405-SS Corner Mount



Flexible Tube