

SX1PTZ-AVI Series

Explosion Proof Dual PTZ Camera Station

Integrated with Avigilon Camera + Thermal Camera (384x288 or 640x480) Module



SX1PTZ-LEDW-G



SX1PTZ-W-G

Main Features



Marine grade
AISI316L Stainless
Steel material



Ex II 2 G Ex db op pr IIC T6
Gb / Ex II 2 D Ex tb op pr
IIIC T80°C Db



IP 66 / 68



Vandal-proof IK10
ratings



Fitted with wiper
mechanism



Next-Generation
Video Analytics



384x288 or 640x480
resolution for thermal
camera module



Option for IEEE
802.3bt PoE++
(90Watt)

Technical Data

General	
Certification	Ex II 2 G Ex db op pr IIC T6 Gb / Ex II 2 D Ex tb op pr IIIC T80°C Db
Protection Level	IP 66 / 68, TVS 6000V Lightning Protection, Surge Protection and Voltage Transient Protection
Operating Temperature	-40°C to 60°C
Relative Humidity	≤95%
Mechanical	
Body Material	Stainless steel 316L material
Sight Glass Material	Window with hardened mineral clear tempered glass
	Window with Germanium glass (for SX1PTZD-G models)
Pan & Tilt Speed	Variable speed option: 0.1°/s to 45°/s
Pan & Tilt Movement	Pan: 360° continuously Tilt: -90° ~ +90°
Overall Dimension (WxHxD)	<i>Please refer to overall dimension drawings of each model.</i>
Cable Entries	1 x M25 (optional additional cable entry upon request)
Weight	Approximate 45KG
Electrical	
Operating Voltage	AC110-240V (0.5A - 1.10A), 50/60Hz Optional: IEEE 802.3bt PoE++(90W)
Power Consumption	Max 110W (110V), Max 120W (240V)
Thermostatically Controlled Heater	T°C on: <10°C, T°C off: >10°C
Optional	
LED Illumination	Up to 200 meters (for SX1PTZ-LEDW model)
Built in Fiber Optic Module	Single Mode or Multi Mode (-SM or -MM model, please refer to below ordering info)
Accessories	
Standard	Sunshield for Camera Housing
Optional	Wall Bracket, Sunshield for Pan & Tilt Body, Pole Top Mounting Adapter

IP Camera/Lens

	Self-learning Video Analytics Range					
	2MP, 18x Zoom	2MP	4MP (9)	4MP (22)	6MP	8MP [4K]
Sensor	1/2.8"				1/1.8"	
Focal Length (mm)	4.7 - 84.6	3.3 - 9	3.3 - 9	9 - 22	4.9 - 8	4.9 - 8
Focus	F1.6	F1.3	F1.3	F1.6	F1.8	
Effective Pixels (HxV)	(16:9) 1920 x 1080		(16:9) 2560 x 1440 (4:3) 2304 x 1728		(16:9) 3200 x 1800 (3:2) 3027 x 2048	(16:9) 3840 x 2160
Horizontal Angle of View	(16:9) 4.1° - 60°	(16:9) 34° - 99°	(16:9) (4:3) 34° - 92°	(16:9) 14° - 31° (4:3) 11° - 24°	(16:9) 52° - 92° (3:2) 41° - 73°	(16:9) 52° - 92°
Max Image Rate	(50 Hz/60 Hz): 25 fps/30 fps		WDR off (50 Hz/60 Hz): 25 fps/30 fps WDR on (50 Hz/60 Hz): 20 fps/20 fps		(50 Hz/60 Hz): 25 fps/30 fps	
Day/Night Control	Automatic, Manual					
Illumination Requirement	Color: 0.039Lux B/W: 0.02Lux	Color: 0.027Lux B/W: 0.014Lux	Color: 0.03Lux B/W: 0.015Lux	Color: 0.058Lux B/W: 0.029Lux	Color: 0.055Lux B/W: 0.028Lux	
Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG					
Protocols	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP					
Supported Video Analytics Events	Objects in Area, Loitering, Crossing Beam, Object Appears or Enters Area, Object Not Present in Area, Objects Enter Area, Objects Leave Area, Object Stops in Area, Direction Violated, Tamper Detection					

*Analog camera and other camera module options are available upon request.

*Thermal camera options are available for G model. Please contact us for the details

Thermal Camera/Lens

	384	640
Type	Uncooled FPA	
Resolution	384x288	640x480
Pixel pitch	17μm	
NETD	≤80mK@F1, 300K, 50Hz	
Field Frequency	50Hz	
Spectral range	8 - 14 μm	
Lens Options	Fixed lens: 9mm, 18mm, 37mm	Fixed lens: 9mm, 25mm, 37mm
	Motorized lens: 7.5mm, 15mm, 30mm	Motorized lens: 13mm, 25mm, 42mm
Brightness/Gain Adjustment	Yes	
Polarity Inversion	Reverse color	
Digital Zoom	Up to 4x Zoom	
Image Enhancement	Yes	
Calibration	Manually calibrate, Automatically calibrate during power on	
Rolling-over/mirror	On/Off	
Display	Varieties of pseudo color labels (firefighting color, iron hot, red hot, amber, white hot, black hot, etc.)	
Focus	Manual/Auto	
Pan & Tilt Control	Yes	
Storage	Support Micro SD, up to 64G, local storage, NAS (NFS, SMB support) / FTP protocol	
OSD	Time, date, channel number, channel name and custom text, temperature measurement information	
Recording Mode	Mobile Surveillance, Alarm Recording (Gray, highest temperature, areas, alarming cross the lines, etc.), network disconnect recording, timing recorded	
Raw Thermal Image Output	25fps, in the back end manually capture the signal frame raw image and data, the raw image can be analyzed and measured temperature	
Ethernet	RJ-45 (10/100BASE-T)	
Video Compression Format	H.264, Motion JPEG	
Resolution	640x480 / 384x288	
Max Frame Rate	H.264: 30fps MJPEG: 640x480: 15fps	
Video Quality Modulation	H.264: Compression degree, target bite rate degree control	
Bit Rate Control Way	H.264: CBR or VBR	
IP	IPv4	
Protocol	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, ICMP, IGMP, ARP, DNS, DDNS	
Safety	HTTPS(SSL) Login Verification, Class Login Verification, IP address filter, user access log, 802.1x ID Verification	
Applied Program Interface	ONVIF Profile S	
Web Browser	Microsoft Internet Explorer (Version 9~11)	
Temperature Detection Range	Normal temperature range: -20°C ~ 180 °C High temperature range: 100°C ~ 600 °C (-H Model, Please specify upon order)	
Accuracy	±2°C or ±2%	
Mode	Supports 3 movable points, 3 movable areas (highest temperature, lowest temperature, average temperature measurement)	
Emissivity Correction	0.01 ~ 1.0 adjustable	
Alarm Output	Switch output	
Protocol Output	SDK alarm protocol output, ONVIF alarm information output	

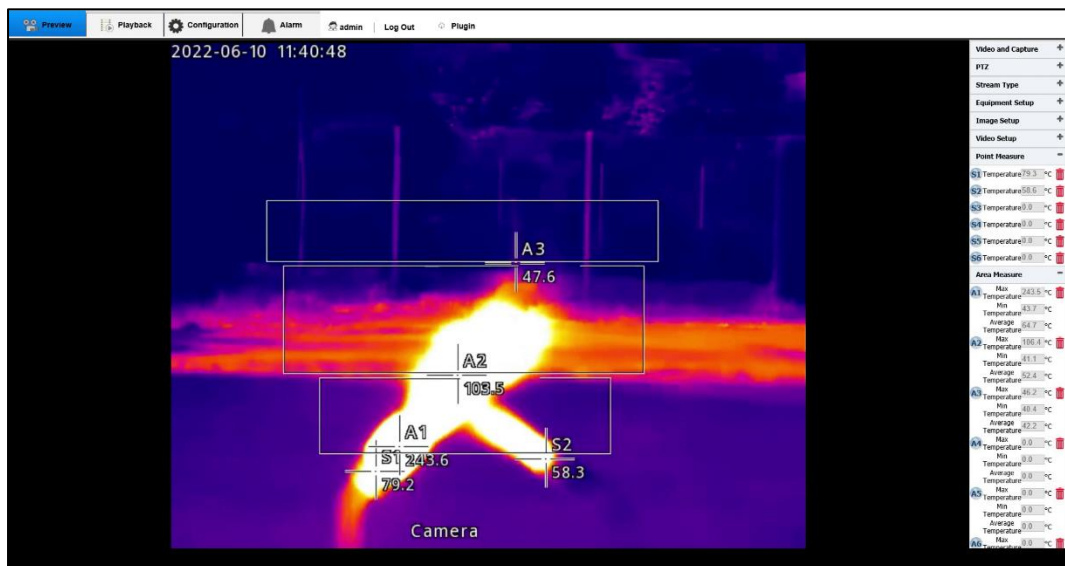
Resolution	Lens (mm)	FOV	Detection (m)	Recognition (m)
640×480	Fixed			
	9	62.3° x 48.8°	291	146
	25	24.6° x 18.5°	809	404
	37	16.7° x 12.6°	1197	599
	Motorized			
	13	45.4° x 34.8°	421	210
	25	24.6° x 18.5°	809	404
384×288	Fixed			
	9	39.9° x 30.4°	291	146
	18	20.6° x 15.5°	582	291
	37	10.1° x 7.6°	1197	599
	Motorized			
	7.5	47.0° x 36.2°	243	121
	15	24.6° x 18.5°	485	243
	30	12.4° x 9.3°	971	485

Lens Comparison Table

Our Technology

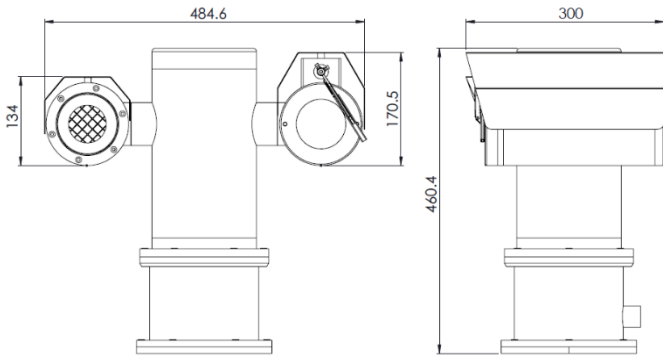
✓ RADIOMETRIC FUNCTIONS FOR MEASURING TEMPERATURE

The integrated thermal camera can have up to a maximum of 6 Area Measures, 6 Point Measures and 3 Line Measures. The different type of measures can accommodate different type of thermal monitoring. Area Measures and Line Measures monitor the maximum, minimum and average temperature with precise temperature detection. Point Measures monitor the temperature on its exact location. The device can be configured so that it independently generates a Radiometric Alarm and/or Warning. This function is particularly useful when Monitoring Industrial Processes.

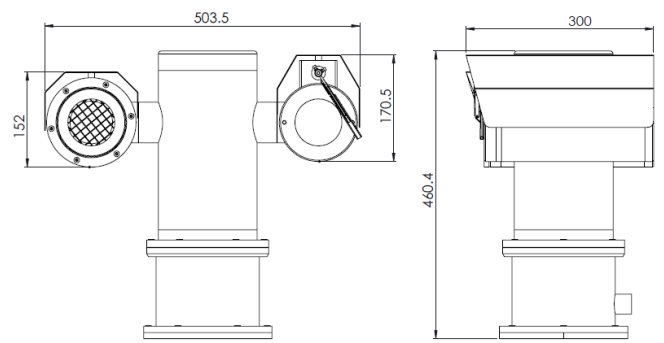


Configurations for Radiometric Temperature Measurement

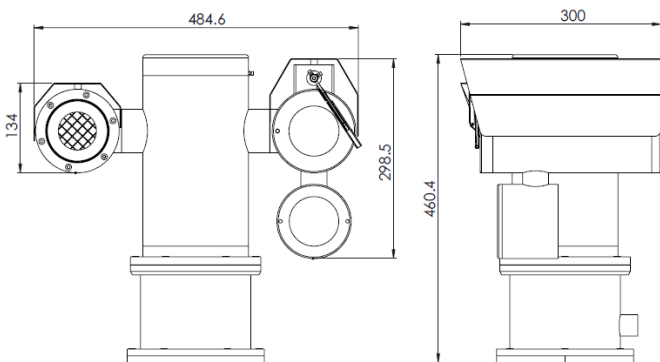
Outline Dimensions (mm)



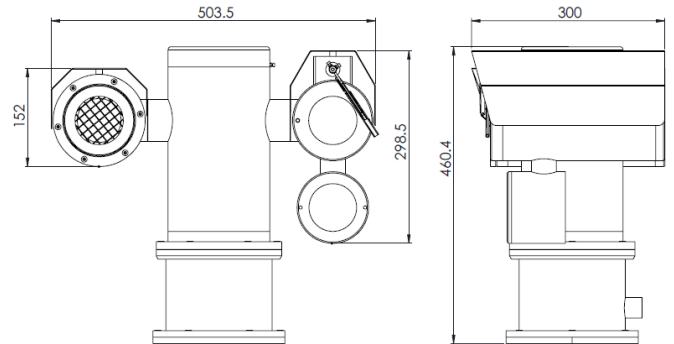
SX1PTZD-W-G Outline Dimensions



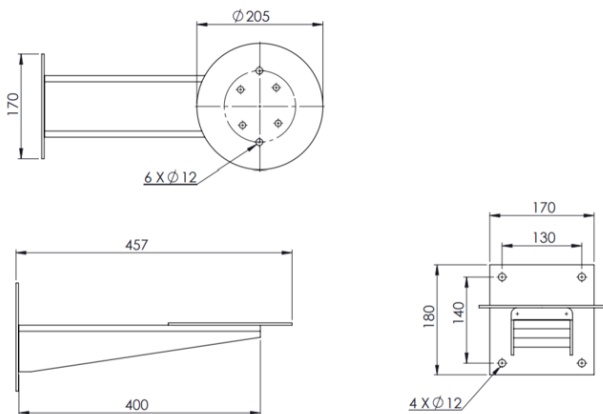
SX1PTZD-W-GL Outline Dimensions



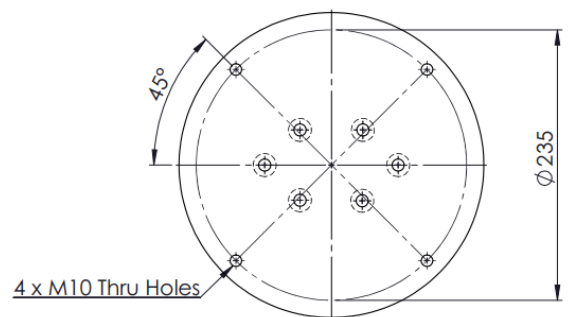
SX1PTZD-LEDW-G Outline Dimensions



SX1PTZD-LEDW-GL Outline Dimensions



WB-SX1PTZ - Wall Bracket Outline Dimensions



PTA-SX1PTZ - Pole Top Mounting Adapter Outline Dimensions

Model & Ordering Code

SX1PTZD - X - X - AVI - X - X - X - X - X - X

Camera Station Options

- W : Fitted with wiper
- LEDW : With LED Illuminator and Wiper

Camera Station Options

- G : With Germanium Window and Front Guard
- GL : Large Diameter (143 mm) with Germanium Window and Front Guard

Camera Module Options

- 18x2M : 2MP, 18x Zoom, IP with Self-learning Video Analytics
- 2M : 2MP, IP with Self-learning Video Analytics
- 4M (9) : 4MP (3.3-9mm), IP with Self-learning Video Analytics
- 4M (22) : 4MP (9-22mm), IP with Self-learning Video Analytics
- 6M : 6MP, IP with Self-learning Video Analytics
- 8M : 8MP, IP with Self-learning Video Analytics

POE Options

- Blank : No additional option
- POE : POE++

Built-in Fiber Optic Module Options

- SM : Single Mode
- MM : Multi Mode

Detection Mode Options

- Blank : Normal Temperature
- H : High Temperature

Thermal Camera Focal Length Options

- M7.5 : 7.5 mm motorized lens
- M13 : 13 mm motorized lens
- M15 : 15 mm motorized lens
- M25 : 25 mm motorized lens
- M30 : 30 mm motorized lens
- M42 : 42 mm motorized lens
- F9 : 9 mm fixed lens
- F18 : 18 mm fixed lens
- F25 : 25 mm fixed lens
- F37 : 37 mm fixed lens

**Please refer lens comparison table above.*

Thermal Camera Module Options

- 384 : 384x288 resolution
- 640 : 640x480 resolution

Standard Accessories

SCH-SX1PTZD : Sunshield for Camera Housing

Optional Accessories

- WB-SX1PTZ : Wall Bracket
- SPT-SX1PTZD : Sunshield for Pan & Tilt Body
- PTA-SX1PTZ : Pole Top Mounting Adapter