

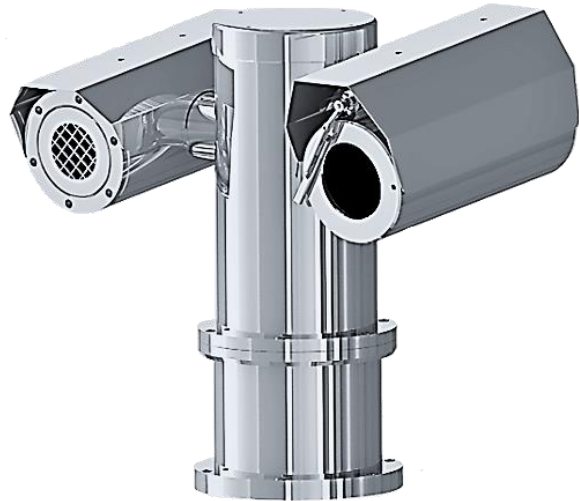
## SS1PTZD Series with BOSCH Camera

### Stainless Steel Weatherproof Dual PTZ Camera Station

Integrated with 2MP Bosch DINION 6000 Camera Module and 17x Optical Zoom Autofocus Lens  
+ Thermal Camera (384x288 or 640x480) Module



SS1PTZD-LEDW-G



SS1PTZD-W-G

### Main Features



Marine grade  
AISI316L Stainless  
Steel material



IP 66 / 68



Vandal-proof IK10  
ratings



Fitted with wiper  
mechanism



Bosch 2MP Box  
Camera with 17x  
optical zoom  
autofocus lens



384x288 or 640x480  
resolution for thermal  
camera module



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



Option for LED  
illuminator available

## Technical Data

| General                            |   |
|------------------------------------|---|
| 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 SS1PTZD-G models)  |
| Pan & Tilt Speed                   | Variable speed option: 0.1 <sup>0</sup> /s to 45 <sup>0</sup> /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 42KG  |
| Electrical                         |   |
| Operating Voltage                  | AC110-240V (0.5A - 1.10A), 50/60Hz<br>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 SS1PTZ-LEDW model)  |
| Accessories                        |   |
| Standard                           | Sunshield for Camera Housing  |
| Optional                           | Wall Bracket, Sunshield for Pan & Tilt Body, Pole Top Mounting Adapter                        |

## IP Camera/Lens

| Camera               |  |
|----------------------|--|
| Day/Night            | Auto (adjustable switch points), Color, Monochrome   |
| Shutter Time         | Automatic Electronic Shutter (AES); Fixed shutter (1/25[30] to 1/15000) selectable; Default shutter  |
| Noise Reduction      | Intelligent Dynamic Noise Reduction Intelligent Streaming  |
| Image Settings       | Color, Brightness, Sharpness, Contrast, White Balance, Exposure Control, Masking, Text Overlay   |
| Corridor Mode        | Corridor Mode 90°, 180°, 270° rotation   |
| Image                |  |
| Image Sensor         | 1/2.8" Progressive CMOS  |
| Effective Pixels     | HxV = 1920x1080 (2MP)  |
| Pixel Size           | 4 μm   |
| Lens                 | f =7.5 mm (wide) to 127.0 mm (tele), F1.6  |
| Zoom                 | 17x Optical Zoom with Autofocus  |
| Min. Illumination    | Color: 0.0069Lux      B/W: 0.0008Lux   |
| Compression Standard |  |
| Video Compression    | H.264/MJPEG  |
| Video Streaming      | Multiple configurable streams in H.264 and MJPEG, configurable frame rate and bandwidth. Regions of Interest (ROI)   |
| Network              |  |
| Security             | User Authentication/ HTTPS/ IP Filter/ IEEE 802.1x   |
| Supported Protocols  | IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), SNMP (V1, V3, MIB-II), 802.1x, DNS, DNSv6, DDNS (DynDNS.org, selfHOST.de, noip.com), SMTP, iSCSI, UPnP (SSDP), DiffServ (QoS), LLDP, SOAP, Dropbox™, CHAP, digest authentication |
| ONVIF                | Profile S/ G/ M/ T conformant  |
| System Integration   |  |
| Analytics            | Rule-based alarms and tracking, Line crossing, Enter /leave the field, Follow route Loitering, Idle/removed object, People counting, Crowd density estimation, 3D tracking, Audio detection (if microphone used)   |
| General              |  |
| Storage              | Supports up to 32 GB microSDHC / 2 TB microSDXC card. Extreme lifetime and health monitoring support that provides early service indication. Recommended: Industrial microSD cards with health monitoring  |

\*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             |
|---|--|-----------------|
| <b>Video</b>                              |  |                 |
| Type                                      | Uncooled FPA microbolomete   |                 |
| Resolution                                | 384x288  | 640x480         |
| Pixel pitch                               | 17μm   |                 |
| NETD                                      | ≤50mK@f1.0, 300K, 30Hz   |                 |
| Field Frequency                           | 50Hz   |                 |
| Spectral range                            | 8 ~ 14 μm  |                 |
| <b>Lens</b>                               |  |                 |
| Focal Length Options                      | Motorized focus lens: 4.8mm, 8mm(f0.8), 12mm, 20mm, 35mm, 50mm   |                 |
| Focus Control (Motorized focus lens only) | Motorized focus by pressing "focus +/-" button   |                 |
| <b>Operational</b>                        |  |                 |
| OSD                                       | Off / On (English: 20 characters, 5 Lines)   |                 |
| Pan & Tilt Control                        | Yes  |                 |
| Frame Frequency                           | 25 / 30Hz  |                 |
| Brightness                                | Manual adjustment (0~100)  |                 |
| Gain Control                              | Manual adjustment (0~100)  |                 |
| Image Enhancement                         | On / Off (Edge enhancement only)   |                 |
| Digital Noise Reduction (DNR)             | SSNR (2D) Noise Filter (Off / On)  |                 |
| Rotate Image                              | Flip: On / Off, Mirror: On / Off   |                 |
| Intelligent Video Analytics               | Motion Detection   |                 |
| Alarm Triggers                            | Temperature Alarm, Motion Detection  |                 |
| Built-in Motion Detection                 | Off / On (3 Zones, Rectangular)  |                 |
| Temperature Alarm Events                  | Up to 10 rectangular ROIs, temperature setting in each ROI in max., min., or average   |                 |
| Built-in Motion Detection                 | Off / On (3 Zones, Rectangular)  |                 |
| Detection Mode (Thermal Core)             | Normal Temperature Range   | -20 °C ~ 120 °C |
|   | High Temperature Range   | 0 °C ~ 500 °C   |
| Measurement accuracy in lab condition     | ±2°C or ±2% of temperature reading<br>(Thermal camera with normal temperature detection mode has better accuracy than camera with high temp. mode) |                 |
| Application                               | Fire prevention, Preventive maintenance, Intrusion detection (human, animal) and other general analysis application                                |                 |

| Network                  |   |
|--------------------------|---|
| Ethernet                 | RJ45 (10/100BASE-T)   |
| Video Compression Format | H264 (MPEG-4 Part 10/AVC) : Main/Baseline/High Motion JPEG  |
| Resolution               | 720x756, 640x480, 584x288, 720x480, 520x240   |
| Max. Frame Rate          | [H264] Max 30fps at all resolutions, [MJPEG] Max 15fps@640x480  |
| Bitrate Control Method   | CBR or VBR, Motion JPEG: VBR (Bitrate Range: 128K ~ 1M)   |
| Streaming Capability     | Multiple Streaming (Up to 3 profiles)<br>Max. Users Number: 10 (total bitrate), Max. Profile Count: 4, Fixed Profile (Default): 2                   |
| IP                       | IPv4, IPv6  |
| Protocol                 | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, ICMP, IGMP, ARP, DNS, DDNS, SMTP                           |
| Security                 | IP Address Filtering<br>User access Log<br>HTTPS(SSL) Login Authentication, Digest Login Authentication, 802.1X Authentication                      |
| Streaming Method         | Unicast / Multicast   |
| Max. User Access         | Max. 10 users access  |
| API                      | ONVIF Profile S Ver 2.4   |
| Web Language (17)        | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Dutch, Portuguese, Turkish, Polish, Czech, Hungarian, Greek |
| Web Viewer               | Supported OS: Windows XP / VISTA / 7 / 8 / 8.1 / 10<br>Supported Browser: Microsoft Internet Explorer (Ver. 9~11)                                   |

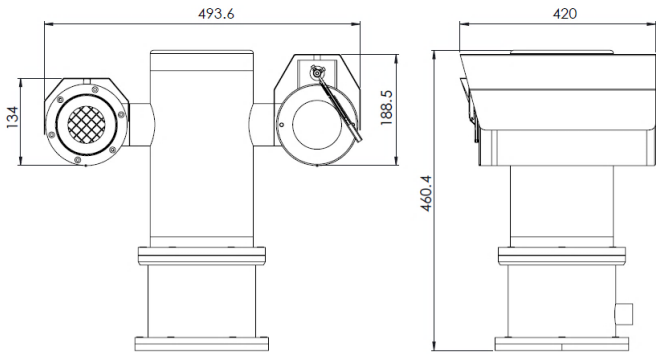
## Lens FOV and DORI Comparison

| Resolution | Lens (mm) | FOV             | Detection (m) | Recognition (m) | Identification (m) |
|------------|-----------|-----------------|---------------|-----------------|--------------------|
| 640x480    | 4.8       | 97.15° x 80.73° | 178.58        | 44.64           | 22.32              |
|            | 8         | 68.43° x 54.04° | 297.63        | 74.41           | 37.20              |
|            | 12        | 48.77° x 37.56° | 446.44        | 111.61          | 55.80              |
|            | 20        | 30.43° x 23.06° | 744.07        | 186.02          | 93.01              |
|            | 35        | 17.67° x 13.30° | 1302.11       | 325.53          | 162.76             |
|            | 50        | 12.42° x 9.33°  | 1860.16       | 465.04          | 232.52             |
| 384x288    | 4.8       | 68.43° x 54.04° | 178.58        | 44.64           | 22.32              |
|            | 8         | 44.39° x 34.03° | 297.63        | 74.41           | 37.20              |
|            | 12        | 30.43° x 23.06° | 446.44        | 111.61          | 55.80              |
|            | 20        | 18.54° x 13.96° | 744.07        | 186.02          | 93.01              |
|            | 35        | 10.66° x 8.00°  | 1302.11       | 325.53          | 162.76             |
|            | 50        | 7.47° x 5.61°   | 1860.16       | 465.04          | 232.52             |

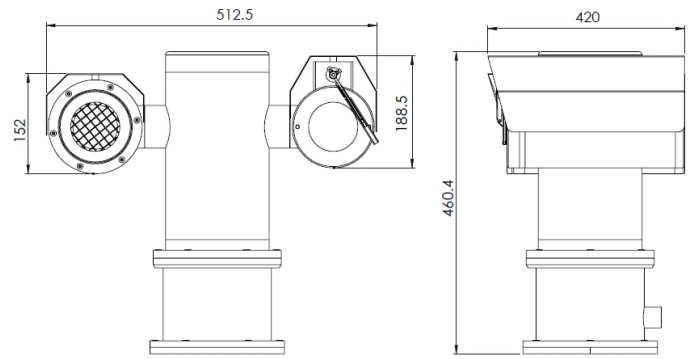
\*Lens 35mm and 50mm will need to use GL Housing Series only.

### Lens Comparison Table

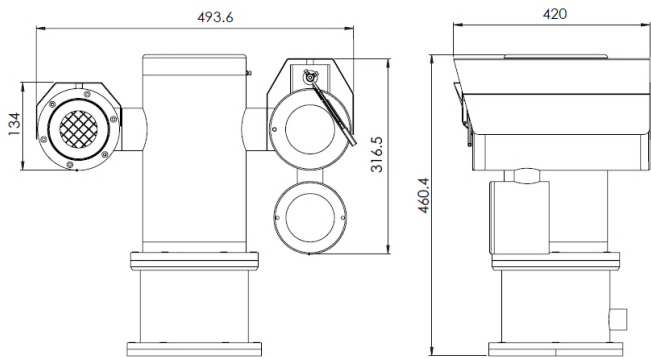
## Outline Dimensions (mm)



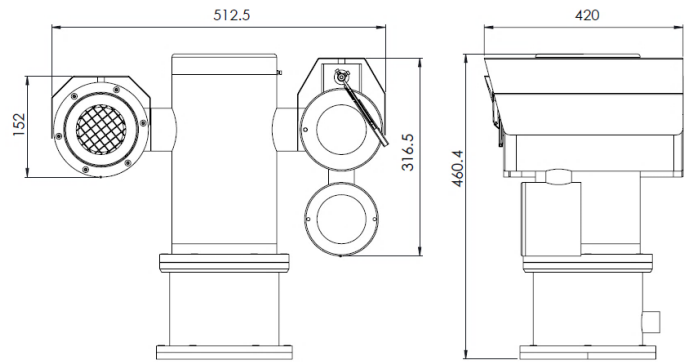
SS1PTZD-W-G Outline Dimensions



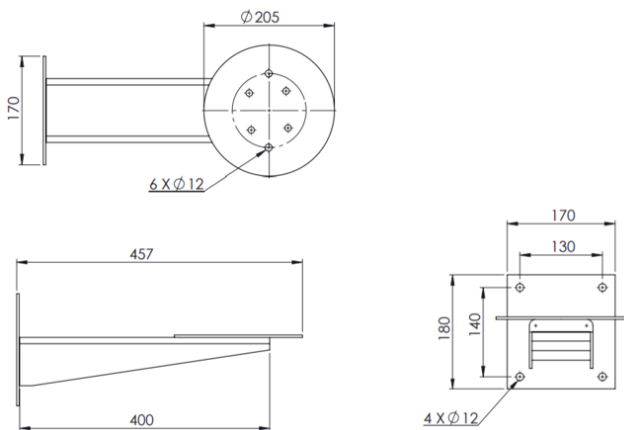
SS1PTZD-W-GL Outline Dimensions



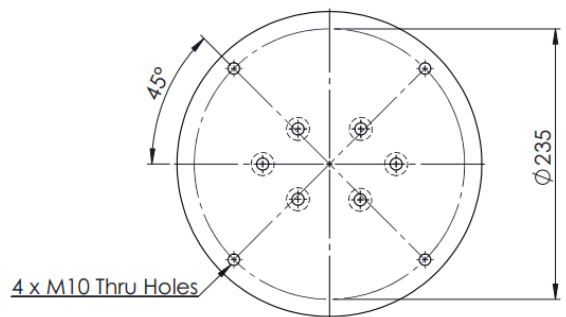
SS1PTZD-LEDW-G Outline Dimensions



SS1PTZD-LEDW-GL Outline Dimensions



WB-SS1PTZ - Wall Bracket Outline Dimensions



PTA-SS1PTZ - Pole Top Mounting Adapter Outline Dimensions

## Model & Ordering Code

SS1PTZD - X - X - BH - 0217 - 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

Thermal Camera Module Options

384 : 384x288 resolution  
640 : 640x480 resolution

POE Options

Blank : No additional option  
POE : POE++

Detection Mode Options

Blank : Normal Temperature  
H : High Temperature

Thermal Camera Focal Length Options

M4.8 : 4.8 mm motorized lens  
M8 : 8 mm motorized lens  
M12 : 12 mm motorized lens  
M20 : 20 mm motorized lens  
M35 : 35 mm motorized lens  
M50 : 50 mm motorized lens

*\*Please refer lens comparison table above.*

## Standard Accessories

SCH-SS1PTZD : Sunshield for Camera Housing

## Optional Accessories

WB-SS1PTZ : Wall Bracket  
SPT-SS1PTZD : Sunshield for Pan & Tilt Body  
PTA-SS1PTZ : Pole Top Mounting Adapter