### SS316L dual head PTZ camera station

- ✓ Two independent cameras for day and night vision.
  - o 336x256 LWIR thermal camera
  - o 3 Megapixel 30x zoom IP camera
- ✓ Variable pan and tilt speed
- ✓ Corrosion protected 316L stainless steel
- ✓ Complete range of thermal lenses available
- ✓ ONVIF profile S compliant



#### **Description**

The stainless steel dual head camera station is a combination of an HD visible light camera and a night vision thermal camera, providing remote surveillance 24/7. The housing is constructed from electro-polished 316L stainless steel for maximum corrosion protection and is fitted as standard with wiper, sunshield and thermostatically controlled heater element.

### Integrated thermal camera

The thermal camera makes video surveillance possible in all weather, no-light and difficult lighting conditions. It is built around an uncooled micro bolometer with a resolution of 336x256 pixels. No additional lightning is necessary to detect a person in the absolute dark. The camera is ONVIF Profile S compliant and supports the open standard (OSA) HTTP API for ease of integration.

#### **Integrated HD zoom camera**

Fitted as standard, the dual headed PTZ is equipped with a 30x optical zoom 3 Megapixel (2048x1536), IP day/night camera. The 30x zoom realizes the optimum field of view in any situation.

#### Multi-stream

Both cameras have their own IP -address and has multi-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios.

### **Security Solution**

In combination with Sense, TKH Security Solutions Video Management System, the Ex cameras create a versatile CCTV solution for hazardous areas. Compatibility with other video management systems is realized by the camera's ONVIF Profile S compliance.



SS316L dual head PTZ camera station

Ingress protection rating   IP66/ IP67	Camera housing		
Rotation +170° to -170° (±5°) No continuous rotation  Tilt angle +90° to -90° (±5°)  Variable speed up to 40°/sec pan and 20°/sec tilt (peak)  Max Torque 80 Nm pan, 107 Nm tilt  Backlash <0.1°  Preset accuracy 0.04°  Sunshield Standard  Internal demister/heater Standard  Wiper Standard  Washer system Optional  Operating temperature -20°C to +60°C  "Dry heat" test +75°C, 2 days  Weight 38 kg  Electrical  Supply voltage 24 V~50/60 Hz; Optional 115 V~50/60 Hz; 230 V~50/60 Hz  Power consumption 80 W max  Electrical connections Internal terminal block  Network  Interface(s) 2x 10/100 Mb Ethernet (4-wires 0.5 mm² from conduit). Each camera its own interface and IP-address  Protocols IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPPP, IGMP, SNMP, QoS, ONVIF  Password levels User and Administrator  Supported browsers Internet Explorer (6.0+), Chrome, Firefox, Safari	Ingress protection rating	IP66/ IP67	
Tilt angle	Body material	Electro-polished 316L stainless steel	
Variable speed up to 40°/sec pan and 20°/sec tilt (peak)  Max Torque 80 Nm pan, 107 Nm tilt  Backlash < 0.1° Preset accuracy 0.04° Sunshield Standard Internal demister/heater Standard Wiper Standard Washer system Optional Operating temperature -20 °C to +60 °C "Dry heat" test +75 °C, 2 days Weight 38 kg  Electrical Supply voltage 24 V~50/60 Hz; Optional 115 V~50/60 Hz; 230 V~50/60 Hz Power consumption 80 W max Electrical connections Internal terminal block  Network Interface(s) 2x 10/100 Mb Ethernet (4-wires 0.5 mm² from conduit). Each camera its own interface and IP-address Protocols IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF Password levels User and Administrator Supported browsers Internet Explorer (6.0+), Chrome, Firefox, Safari	Rotation	+170° to -170° (±5°) No continuous rotation	
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Sunshield Standard Internal demister/heater Standard Wiper Standard Washer system Optional Operating temperature -20 °C to +60 °C "Dry heat" test +75 °C, 2 days Weight 38 kg   Electrical Supply voltage 24 V~ 50/60 Hz; Optional 115 V~ 50/60 Hz; 230 V~ 50/60 Hz Power consumption 80 W max Electrical connections Internal terminal block  Network Interface(s) 2x 10/100 Mb Ethernet (4-wires 0.5 mm² from conduit). Each camera its own interface and IP-address Protocols IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF Password levels User and Administrator Supported browsers Internet Explorer (6.0+), Chrome, Firefox, Safari	Backlash	<0.1°	
Internal demister/heater  Wiper Standard  Washer system Optional Operating temperature -20 °C to +60 °C  "Dry heat" test +75 °C, 2 days  Weight 38 kg   Electrical Supply voltage 24 V~ 50/60 Hz; Optional 115 V~ 50/60 Hz; 230 V~ 50/60 Hz  Power consumption 80 W max Electrical connections Internal terminal block  Network Interface(s) 2x 10/100 Mb Ethernet (4-wires 0.5 mm² from conduit). Each camera its own interface and IP-address  Protocols IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF  Password levels Supported browsers Internet Explorer (6.0+), Chrome, Firefox, Safari	Preset accuracy	0.04°	
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Operating temperature  -20 °C to +60 °C  "Dry heat" test  +75 °C, 2 days  Weight  38 kg  Electrical  Supply voltage  Power consumption  Electrical connections  Internal terminal block  Network  Interface(s)  Protocols  Protocols  Protocols  Protocols  IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF  Password levels  Supported browsers  Internal Explorer (6.0+), Chrome, Firefox, Safari	Wiper	Standard	
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Weight  38 kg  Electrical  Supply voltage  Power consumption  Electrical connections  Internal terminal block  Network  Interface(s)  Protocols  Protocols  Protocols  Internal terminal termina	Operating temperature	-20 °C to +60 °C	
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Electrical connections       Internal terminal block         Network       Interface(s)       2x 10/100 Mb Ethernet (4-wires 0.5 mm² from conduit). Each camera its own interface and IP-address         Protocols       IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF         Password levels       User and Administrator         Supported browsers       Internet Explorer (6.0+), Chrome, Firefox, Safari	Supply voltage	24 V~ 50/60 Hz; Optional 115 V~ 50/60 Hz; 230 V~ 50/60 Hz	
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Interface(s)  2x 10/100 Mb Ethernet (4-wires 0.5 mm² from conduit). Each camera its own interface and IP-address  Protocols  IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF  Password levels  User and Administrator  Supported browsers  Internet Explorer (6.0+), Chrome, Firefox, Safari			
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Protocols  IPv4, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF  Password levels  Supported browsers  User and Administrator  Supported browsers  Internet Explorer (6.0+), Chrome, Firefox, Safari	Interface(s)		
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Password levels  User and Administrator  Supported browsers  User and Administrator  Internet Explorer (6.0+), Chrome, Firefox, Safari	Protocols		
Supported browsers Internet Explorer (6.0+), Chrome, Firefox, Safari			
User accounts 20		· · · · · · · · · · · · · · · · · · ·	
	User accounts	20	

### BC820v2H3 Full-HD IP camera

camera	
Image sensor	1/2.8" Progressive scan CMOS
Effective pixels	2048 (H) x 1536 (V)
Shutter speed	1 - 1/10000 s
Minimum scene illumination	0.04 lux (colour), 0.002 lux (b/w), F/1.6
Dynamic range (WDR)	120 dB (in WDR-2: dual exposure mode)
Lens	30x Optical zoom, F/1.6 (W), F5 (T); 10x digital zoom
Lens focal length	4.3 mm (W) - 129 mm (T)
Horizontal field of view	67.4° (W) - 2.6° (T)
Features	Back light compensation, auto/manual white balance,
	(3D/2D) noise, IR light compensation
Exposure	Auto (iris or shutter priority) / Manual
Day/Night (IR-cut filter)	Auto/night/day/smart (with adjustable threshold levels)

www.tkhsecurity.com page 2 of 6

SS316L dual head PTZ camera station

Video				
Compression algorithm(s)	H.264 (baseline / ma	ain / high profile); N	MJPEG	
Supported resolutions	2048x1536; 1920x1080 (1080p); 1280x1024; 1280x720 (720p); 1024x768; 800x600; 720x576 (D1); 640x480; 352x288 (CIF)			
Quad streaming:	Stream 1	Stream 2	Stream 3	Stream 4
H.264 instances in 50/60 fps	1920x1080	-	-	-
(best resolution setting at 50/60 fps;	1920x1080	720x576	-	-
higher resolution at lower frame rate	1920x1080	640x480	342x288	-
possible)		(30fps)	(30fps)	
H.264 instances in 25/30 fps	2048x1536	-	-	-
(best resolution setting at 25/30 fps;	1920x1080	1920x1080	-	-
higher resolution at lower frame rate	2048x1536	1280x1024	-	-
possible)	2048x1536	1280x1024	352x288	-
	2048x1536	1280x720	720x576	352x288
	1920x1080	1280x1024	1280x720	352x288
H.264 instances in 25/30 fps in WDR-2	1920x1080	-	-	-
(best resolution setting at 25/30 fps;	1920x1080	1920x1080	-	-
higher resolution at lower frame rate	2048x1536	352x240	-	-
possible)	1920x1080	1280x720	720x480	
MJPEG	One of the above re instead of H.264 if the			
Compression bit rate control	Constant bit rate (C	BR), variable bit ra	te (VBR)	
Output bit rate (per H.264 stream)	Up to 20480 kb/s			
Number of video output streams	Up to 20 (RTSP)			
Total output data rate (max)	50000 kb/s			
Video frame rate	1 to 60 fps / 1 to 50	fps		
		•		

### TC620 Thermal imager

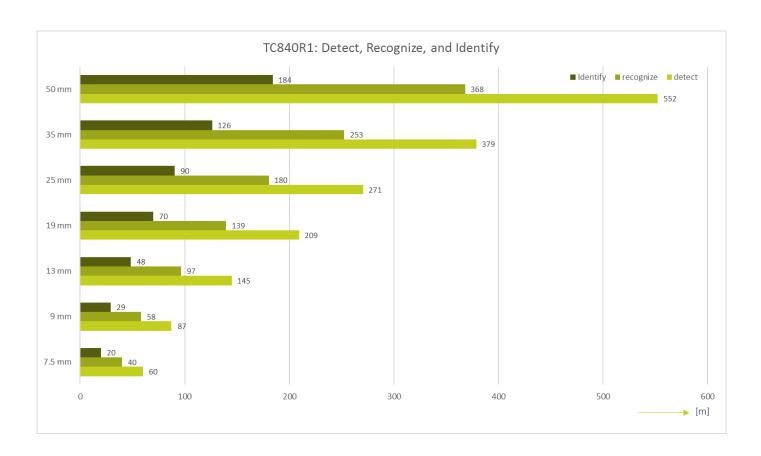
Thermal imager							
Imager	Uncooled	d micro-bo	lometer				
Pixel pitch	17 µm						
Resolution	336 x 25	6 pixels					
Focal length	7.5 mm	9 mm	13 mm	19 mm	25 mm	35 mm	50 mm
Field of view	45°x35°	35°x27°	25°x19°	17°x13°	13°x10°	9.3°x7.1°	6.5°x5°
f-number	f/1.4	f/1.25	f/1.25	f/1.25	f/1.1	f/1.5	f/1.2
Spectral bandwidth	7.5 µm to	o 13.5 µm	(LWIR)				
Frame rate	8.3 fps (x	x-S versio	n) Optiona	l: 30 fps (x	x-F versio	n)	
Sensitivity (NEdT)	< 50 mK	@ f/1.0					
Time to image	Instantar	neous					
Digital zoom	No						

Video	
Number of video streams	2x H.264/MJPEG
Max resolution	720 x 512 @ 25/30fps (up-sampled)
Number of output streams	Up to 20 (RTSP)
Compression algorithm(s)	H.264 (H.264/MPEG-4 AVC), MJPEG
Encoder bit rate control	Constant bit rate (CBR), variable bit rate (VBR)
Output bit rate (per H.264 stream)	Up to 6 Mbit/s
Total output data rate	Up to 32 Mbit/s
Video overlay	3x Text, 1x bitmap (BMP, GIF); PID Object data (blue blob), event data
	(red box);

www.tkhsecurity.com page 3 of 6

SS316L dual head PTZ camera station

Analytics (Thermal camera only)	
Freeform zones or detection lines	2x in stand-alone (Web configured) up to 8x with the "VCA Configuration Server"
Event type	Detection line: Touch, Cross (directional sensitive), Cross Detection zone: Touch, Enter, Inside, Exit
Event time	0 to 10 s
Event output	generic ONVIF, digital I/O, SPI
Measuring range	-40 °C to 550°C
Accuracy	+/- 20 °C (T< 100 °C) or +/- 20% (T> 100 °C)



www.tkhsecurity.com page 4 of 6

SS316L dual head PTZ camera station

### Accessories

SA wall mounting bracket PTZ

316L wall mounting bracket for SA PTZ camera housings



SA-WP10-10m-VSF-24 v2



10 litre washer tank, pump 10 m delivery head, 316L frame, 24 Vac

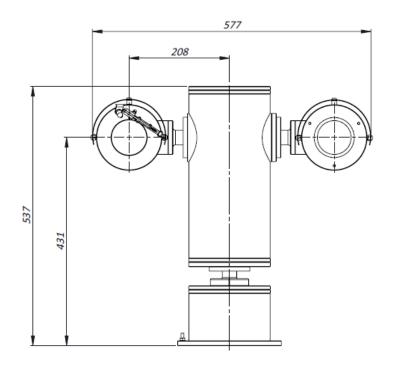
Order information	
SA-BC820v2H3-TC620 7.5-S PTZ 24	Ex 316L PTZ IP Ti 7.5mm 9Hz 336 24Vac
SA-BC820v2H3-TC620 <b>7.5</b> -S PTZ 24	Lens type in mm: 7.5, 9.0, 13, 19, 25, 35, or 50
SA-BC820v2H3-TC620 7.5- <b>S</b> PTZ 24	'-S' for Slow (8.3 fps) or '-F' for fast (30 fps)
SA-BC820v2H3-TC620 7.5-S PTZ <b>24</b>	Replace 24 with 115 or 230 respectively for 115 or 230 Vac power

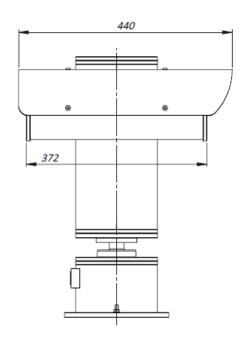
Maintenance & replacement kits	
EX/SA-MK Wiper	Maintenance kit for the wiper: Rubber blade and support
EX/SA-Wiper	Replacement for Stainless steel wiper (complete assembly)
SA-MK PTZ	Maintenance kit SA PTZ camera: O-Ring, screws, desiccant bags
SA-MK PTZ controller	Telemetry controller for (SA) PTZ camera station, RS485,
	PELCO D protocol

Please Note: Thermal cameras fall under export restrictions. Please, contact TKH Security Solutions for more information.

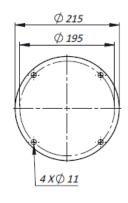
www.tkhsecurity.com page 5 of 6

SS316L dual head PTZ camera station

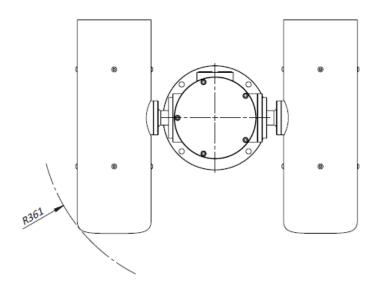




Mounting pattern:



Top view:



All dimensions in mm





The quality management system used in the development, production, sales, and support of this product is ISO 9001 certified by LRQA.

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www.tkhsecurity.com page 6 of 6