tyco | **Illustra**

Data Sheet

Standard
2MP 44x Network IR PTZ Outdoor Camera

Key Benefits

- 1/1.8" progressive scan CMOS
- Up to 1920 × 1080 resolution
- Min. Illumination:
  Color: 0.001 Lux @(F1.2, AGC ON)
  B/W: 0.0005 Lux @(F1.2, AGC ON)
  0 Lux with IR
- 44× optical zoom, 16× digital zoom
- 140dB WDR, 3D DNR, HLC, Smart IR
- 24 VAC & Hi-PoE
- Up to 500m IR distance
- Support H.265+/H.265 video compression
- Support rapid focus
- Auto-tracking
- IK10, IP67

The Illustra Standard IP IR PTZ outdoor camera Model ISV-P02Z442S-H is an excellent camera for security-critical environments where locating, tracking and zooming in on subject details with speed is vital. This versatile camera by Tyco is one of the most feature-rich cameras on the market today and boasts a 360° endless pan and -20°-90° tilt range and remarkable intelligence while supporting functions like Smart Tracking, Defog, ROI encoding, and HLC. Inbuilt IR LED is an outstanding feature as it enhances the camera's night vision capabilities of detection over long distances.

Camera Functions

The Illustra Standard IP PTZ incorporates a 1/1.8" high performance, progressive scan CMOS sensor for full HD quality images up to 1920x1080 resolutions at 30 FPS frame rate. The camera supports smart tracking, scheduled PTZ movement and 3D intelligent positioning function for auto tracking to the specified zone. The camera has a preset accuracy of ±0.1°. The camera excels while performing in low light conditions. A 3D DNR effectively reduces image noise in static as well as moving images. A host of other features like auto iris, auto focus, auto white balance and backlight compensation are also inbuilt into the camera including a convenient auto day and night switch.

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Complete Convenience with a Suite of Smart Functions

The camera has a host of intelligent features which make security surveillance a breeze for security staff. Apart from convenience, smart features are vital for rapid decision-making and responses in security alert situations. The camera supports a complete suite of smart functions that range from smart tracking, smart detection and smart recording.
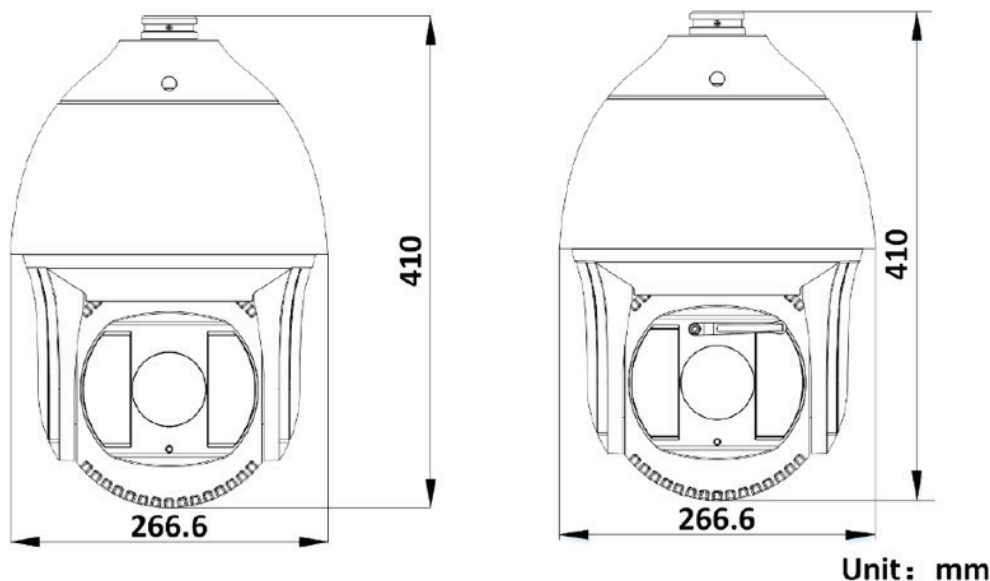
Specifications

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color: 0.001 Lux @(F1.2, AGC ON), B/W: 0.0005 Lux @(F1.2, AGC ON), 0 Lux with IR
Shutter Speed	1/1s to 1/30,000s
Day & Night	IR cut filter
Zoom	44x optical, 16x digital
Max. Resolution	1920 × 1080

Lens	
Focus	Auto, semi-auto, manual, rapid focus
Focal Length	5.7 mm to 250.8 mm
Zoom Speed	Approx. 4.5 s (optical, wide-tele)
Field of View	Horizontal field of view: 56.6° to 1.7° (wide-tele) Vertical field of view: 33.7° to 0.9° (wide-tele) Diagonal field of view: 63.4° to 1.9° (wide-tele)
Aperture	Max. F1.2

Image	
Image Settings	Saturation, brightness, contrast, sharpness, gain, and white balance adjustable by client software or web browser
Image Enhancement	BLC, HLC, 3D DNR
Wide Dynamic Range (WDR)	140 dB WDR
Image Stabilization	Yes. Built-in gyroscope to improve EIS performance
Regional Exposure	Support
Regional Focus	Support
Privacy Mask	Up to 24 masks, polygon region, mosaic mask, mask color configurable

IR	
IR Distance	Up to 500m
Smart IR	Support

PTZ	
Movement Range (Pan)	360° endless
Movement Range (Tilt)	-20° to 90° (auto flip)
Pan Speed	Configurable, from 0.1°/s to 210°/s, Preset Speed: 280°/s
Tilt Speed	Configurable, from 0.1°/s to 150°/s, Preset Speed: 250°/s
Proportional Zoom	Support
Presets	300
Patrol Scan	8 patrols, up to 32 presets for each patrol
Pattern Scan	4 pattern scans, record time over 10 minutes for each scan
Power-off Memory	Support
Park Action	preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan
3D Positioning	Support
PTZ Status Display	Support
Preset Freezing	Support

Scheduled Task	Preset, pattern scan, patrol scan, auto scan, tilt scan, random scan, frame scan, panorama scan, dome reboot, dome adjust, aux output
Video	
Main Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 960, 1280 × 720) 60 Hz: 30 fps (1920 × 1080, 1280 × 960, 1280 × 720)
Sub-Stream	50 Hz: 25 fps (704 × 576, 640 × 480, 352 × 288) 60 Hz: 30 fps (704 × 480, 640 × 480, 352 × 240)
Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288) 60 Hz: 30 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264 Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264/MJPEG
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main profile
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	8 fixed regions for each stream
Audio	
Audio Compression	G.711alaw, G.711ulaw, G.722.1, G.726, MP2L2, PCM
Audio Bit Rate	64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32~192 Kbps (MP2L2)
Edge Intelligence	
Perimeter Protection	Intrusion, Line Crossing, Region Entrance, Region Exiting Support alarm triggering by specified target types (human and vehicle)
Event Detection	Motion detection, video tampering, Line crossing detection, region entrance / exiting detection, parking detection, unattended baggage detection, object removal detection, intrusion detection, audio exception detection
Smart Tracking	Manual Tracking, Auto Tracking
Alarm Linkage	Alarm actions, such as Preset, Patrol Scan, Pattern Scan, Memory Card Video Record, Trigger Recording, Upload to FTP/Memory Card/NAS, Send Email
Network	
ONVIF	Open Network Video Interface (Profile S, Profile G, Profile T)
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, DHCP, PPPoE, UDP, IGMP, ICMP, Bonjour
Simultaneous Live View	Up to 20 channels
User/Host	Up to 32 users; 3 levels: Administrator, Operator and User
Cyber Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.3, host authentication (MAC address)
Web Browser	IE11, Chrome 57.0+, Firefox 52.0+, Safari 11+
Interface	
Ethernet Interface	1 RJ45 10M/100M self-adaptive Ethernet port
On-board Storage	Built-in memory card slot, support MicroSD/MicroSDHC/MicroSDXC, up to 256 GB
RS-485	Pelco-P, Pelco-D, self-adaptive
Alarm Input/Output	7 input, 2 output
Audio Input/Output	1 input (line in), max. input amplitude: 2-2.4 vpp, input impedance: 1 KΩ ± 10%; 1 output (line out), line level, output impedance: 600 Ω
General	
Power	24 VAC (Max. 60 W, including max. 18 W for IR and max. 6 W for heater), Hi-PoE (Max. 50 W, including max. 18 W for IR and max. 6 W for heater)
Operating Condition	Temperature: -40°C to 70°C (-40°F to 158°F), Humidity: ≤ 95%
Wiper	Yes
Dimensions	Ø 266.6 mm × 410 mm (Ø 10.50" × 16.14")
Weight	Approx. 8 kg (17.64 lb)

Approvals	
EMC	FCC SDoC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2: 2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014)
Safety	UL (UL 62368-1) BIS (IS 13252(Part 1):2010/ IEC 60950-1: 2005);
Environment	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)
Protection	IP67 (IEC 60529-2013), IK10, Lightning Protection, Surge Protection and Voltage Transient Protection, ±6kV Line to Gnd, ±3kV Line to Line

Dimensions

Ordering Information

	Model Number	Description
Camera	ISV-P02Z442S-H	H.265 2MP 44x Network IR PTZ Camera, 1/1.8" CMOS, 400M IR, Micro SD, IP67/IK10, Smart IVA

About Johnson Controls

Johnson Controls is a global diversified technology and multi-industrial leader serving a wide range of customers in more than 150 countries. Our 120,000 employees create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat.

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