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Product at a Glance

- ▶ 6 megapixel and 12 megapixel versions; progressive scan CMOS sensor
- ▶ Server-based dewarping, 12 MP @20 FPS; Edge-based dewarping up to 4 MP
- ▶ Multiple dewarp display modes
- ▶ Smart Event function
- ▶ Day/night with mechanical IR cut filter
- ▶ Multiple and dynamic Region of Interest (ROI) windows
- ▶ 360° panorama at full HD resolution
- ▶ Smart text overlay and privacy masks
- ▶ Integrated Smart IR LED module
- ▶ Quad stream compression: H.264 Baseline\Main\High-profile + M-JPEG
- ▶ Two-way audio; indoor version only has built-in microphone and speaker
- ▶ Wide Dynamic Range (WDR)
- ▶ Micro SD card slot for local storage
- ▶ Powered by PoE; 12 VDC
- ▶ Indoor and outdoor models are rated IK10; outdoor version has weatherproof IP66 rated housing

360 Degree Vision

The V9360 series provides a high-resolution, hemispherical view of your world that eliminates blind spots and improves long term reliability. Onboard image processing supports up to 12 MP resolution providing crisp distortion-free images. An integral fisheye lens provides an extremely wide angle of view for a panoramic image, capturing a complete 360° view. The camera offers both Server-based dewarping at 12 MP as well as Edge-based dewarping at 4 MP.

Overview

The V9360 provides single and quad-streaming video and supports H.264 compression technology, drastically reducing file sizes and conserving valuable network bandwidth; M-JPEG compression is also supported.

The hemispheric camera series offers 6 MP and 12 MP indoor and outdoor models in a compact cost-effective design. The indoor versions are the V9360-6 or the V9360-12; the V9360W-6 and V9360W-12 are designed for outdoor security installations. An IR cut filter provides low light sensitivity.

Installation of the V9360 series cameras is made easy and cost effective with Power over Ethernet (IEEE 802.3af), which eliminates the need for power cables; 12 VDC is also accepted.

The camera can be used with Vicon Valerus® and ViconNet® as well as many other popular VMS systems; each VMS may support different camera functions. Using ViconNet, it is possible to digitally zoom in to live or recorded video, providing a close look at any object within the two panoramic views; pixilation is minimal due to the 12 MP resolution.

Product Descriptions

Resolution	Environment	Model Number
Up to 3072x2048 pixels (6 megapixel)	Outdoor	V9360W-6
Up to 3072x2048 pixels (6 megapixel)	Indoor	V9360-6
Up to 4000x3000 pixels (12 megapixel)	Outdoor	V9360W-12
Up to 4000x3000 pixels (12 megapixel)	Indoor	V9360-12

Mounting Options		
Pendant mounting kit	Indoor/Outdoor	V9360-2MK
Flush mounting kit	Indoor/Outdoor	V9360-FMK-2
Wall mounting kit	Indoor/Outdoor	V9360-WM-1
Universal (4S) box adaptor	Indoor/Outdoor	V9360-1BA

SPECIFICATIONS

Model	V9360-6 Indoor and V9360W-6 Outdoor	V9360-12 Indoor and V9360W-12 Outdoor
Camera		
Device Type:	Indoor and outdoor panoramic cameras	
Image Sensor:	1/1.8" Sony progressive scan CMOS	1/1.7" Sony progressive scan CMOS
Max Resolution:	SW Dewarping: 3072x2048 (6 MP); Edge Dewarping: 2048x2048 (4 MP); H.264	SW Dewarping: 4000x3000 (12 MP); Edge Dewarping: 2048x2048 (4 MP); H.264
Image Settings:	WDR (Wide Dynamic Range). Backlight Compensation (BLC). Configurable brightness, contrast, saturation, hue, sharpness. White balance. Exposure. Edge de-warping. DNR (3D). Digital zoom. Privacy masks (5). ICR. IR threshold. Smart Events (Tampering Alarm. Motion detection. Network Failure Detection. Audio Detection. Manual Trigger Event. Periodic Event.)	
Electronic Shutter Speed:	1 - 1/10000 sec	
Day/Night Performance:	Day/Night with mechanical IR cut filter	
IR Sensitivity:	850 nm; up to 16 ft (5 m); 4 LEDs	
Minimum Illumination:	Color: 0.04 lux; BW: 0.002 lux	Color: 0.1 lux; BW: 0.01 lux
Lenses		
Lens:	Fisheye 1/2"; 1.6 mm focal length, F1.6; M12 mount	Fisheye 1/1.7"; 1.65 mm focal length, F2.8; M12 mount
Angle of View:	185° @ full resolution	190° @ full resolution
Network Video Transmission		
Network:	1 Gbps Ethernet; RJ-45	
Image Compression:	H.264 (MPEG-4 Part 10/AVC) Baseline/ Main Profile/ High Profile/SVC, M-JPEG	
Video Streaming:	Simultaneous dual streams based on two configurations in single view mode; multiple streams based on single configuration in 6 cropped VGA mode. Refer to Video Streaming Table	
Max. Frame Rate vs Resolution Performance:	Refer to Video Streaming Table	
Audio:	Two-way audio (line in/line out). Indoor: Built-in speaker (max. 2W mono) and microphone. G.711/G.726	
Protocols:	IPv4/IPv6, TCP/IP, UDP, HTTP, RTP, RTSP, DHCP, SMTP, HTTPS, PPPoE, ICMP, ARP, UPnP, SNMP, FTP, IGMP, QoS, ONVIF	
Users:	Up to 20 clients	
Web Browser:	Internet Explorer® 7.0 and above/Firefox®/Safari®	
Alarms:	1 alarm input/1 alarm output (open collector)	
Security:	Password protection, IP address filtering, HTTPS, IEEE 802.1X network access control	
Mechanical and Electrical		
Construction:	Aluminum (ADC12)	
Mounting:	2 mounting holes provided	
Controls and Connectors:	PoE/Network: RJ-45. Alarm/Audio: 7 pin terminal block (2 of each). Power: 2 pin terminal block. Audio In/Out: phone jacks with cable (outdoor); terminal block (indoor). Micro SDXC card slot. Outdoor model provides pigtail connection; refer to Connector Drawings.	
Dimensions:	H: 2.17 in. (55 mm); D: 4.6 in. (117 mm).	
Weight:	0.88 lb (0.40 g)	
Input Power:	PoE (IEEE 802.3af Class 3); 12 VDC	
Current:	PoE; 0.14 A; 12 VDC: 0.675 A	
Power Consumption:	PoE: 7.1 W; 12 VDC: 8.1 W (675 mA). IR LED On: +1.9 W; SD Card: +0.6 W; ICR Switching: +0.5 W	
Environmental		
Operating Conditions:	Temp: Outdoor: -22 to 122° F (-30 to 50° C). Indoor: 14 to 122° F (-10 to 50° C). Humidity: 10% - 90%, non-condensing.	
Approvals:	UL, FCC Class A, CE, RoHS. IP66 (outdoor models only); IK10	
Warranty:	3 years	

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V9360-6/12 MEGAPIXEL SERIES

## V9360 Indoor Series Connectors
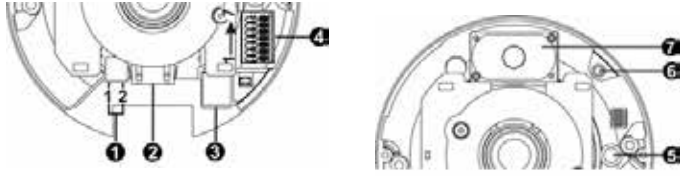
1. Power Connector: 12 VDC - Pole 1: 12 VDC; Pole 2: Reserved
2. RJ-45 Connector: Network and PoE connections
3. MicroSD Card Slot: Insert microSD card for storage
4. Alarm and Audio Connector: Input and output
5. Built-in Microphone: Audio In
6. Default Button: Press to restore factory defaults
7. Speaker: Audio Out

V9360W Outdoor Series Connectors
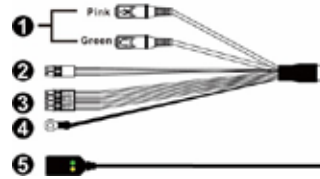
1. Audio Connector: Two way audio transmission, autio in and out
2. Power Connector: 12 VDC
3. Alarm Connector: Input and output
4. Ground Connection: GND
5. RJ-45 Connector: Network and PoE connections
Default Button (see indoor Connectors 6): Press to restore factory defaults
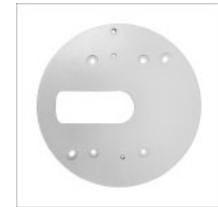MicroSD Card Slot (see indoor Connectors 3)

Dimension Drawing
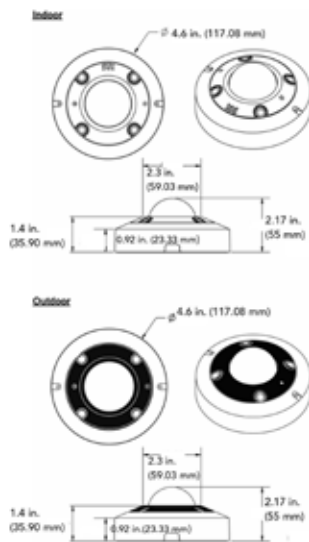
Mounting Accessories
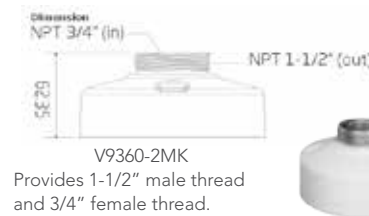
V9360-2MK
Provides 1-1/2" male thread
and 3/4" female thread.

V9360-1BA

V9360-WM-1   V9360-FMK-2   V9360-WDG   V9360-WDG-PLATE

Video Streaming Table

Dewarping Type	Video Resolution	Streaming	Video Streaming (fps)
Edge Dewarping	**6 MP**: H.264: 3072x2048/2688x1520/2048x1536/1920x1080/1600x1200/1408x1408/960x960/960x720/960x554	Dual*	H.264: 4MP (2048x2048) @20fps + H.264 1080p @20fps
	12 MP: H.264: 4000x3000/3840x2160/3200x1800/3072x2048/2688x1520/2048x1536/1920x1080/1600x1200/1408x1408/960x960/960x720/960x554		H.264: 1.98MP (1408x1408) @25/30fps+ H.264 1080p @25/30fps
		Single	H.264 6MP (3072x2048) @25/30fps
	M-JPEG:1920x1080/1600x1200/1408x1408/960x960/960x720/960x554		H.264 12MP (4000x3000) @20fps; H.264 4K (3840x2160) @24fps; H.264 6MP (3200x1800) @25/30fps + 720p @25/30fps
			H.264/M-JPEG 1080p @50/60fps
Software Dewarping	**6 MP**: H.264: (3072x2048)/Full HD 1080P/SXGA/HD 720P/XGA/SVGA/D1/VGA/CIF/QVGA	Dual*	H.264 6MP (3072x2048) @25/30fps + H.264 720p @25/30fps
	M-JPEG: Full HD 1080P/SXGA/720P/XGA/SVGA/D1/VGA/CIF/QVGA		**12 MP**: H.264 12MP (4000x3000) @15fps + 1080p @15fps; H.264 4K (3840x2160) @20fps + 1080p @20fps; H.264 6MP (3200x1800) @25/30fps + 720p @25/30fps; H.264/MJPEG 1080P @50/60fps + H.264/MJPEG 1080P @25/30fps
			6 MP: H.264 1080p @50/60fps + 1080p @25/30fps H.264/M-JPEG1080p @50/60fps + 1080p @25/30fps
	12 MP: H.264: 12 MP (4000x3000)/4K (3840x2160)/6MP (3200x1800)/1080P	Quad**	NTSC: H.264 1080p @60fps + H.264 SXGA @60fps + H.264 D1 @60fps + H.264 CIF @60fps
	H.264/M-JPEG: Full HD 1080P		PAL: H.264 1080p @50fps + H.264 1080p @50fps + H.264 VGA @50fps + H.264 CIF @50fps

*Note: M-JPEG supports resolutions of 1080P or under.   ** Note: 1 of the streams can be M-JPEG

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