

## V960D Series Network Vandal-Resistant Camera Dome



### Overview

Vicon's V960D Series of HD IP Camera Domes is designed for demanding security installations. It offers a number of fixed network camera versions that deliver crisp clear images to fit any installation need. Each version type [1080p, 720p and SD (standard resolution)] is offered with a choice of 3.3-12 mm or 9-22 mm motorized P-Iris lens or a 3.3-12 mm manual DC iris lens. The motorized lenses permit remote focus and zoom using the web browser interface.

The V960D Series provides dual-streaming video and supports H.264 compression technology, drastically reducing file sizes and conserving valuable network bandwidth. Users can receive multiple streams simultaneously in different resolutions, frame rates and image qualities for viewing on different platforms.



- 1080p, 720p and SD resolution models
- True day/night camera with a choice of built-in varifocal lenses, including remotely adjustable motorized P-Iris lenses
- H.264 high-profile and M-JPEG compression
- 0.08 lux low light capabilities @ 50 IRE
- Power-over-Ethernet (IEEE 802.3af), 24 VAC or 12 VDC
- Dual streaming video
- IP66 rated; heater provides all-weather protection

Installation of the V960D is made easy and cost effective with Power over Ethernet (IEEE 802.3af), which eliminates the need for power cables. The camera also accepts 12 VDC and 24 VAC. Additionally, a composite output is provided for installation using a spot monitor (NTSC/PAL selectable).

In order to adapt to constantly changing outdoor lighting conditions, the V960D features an autoiris varifocal lens to protect from damage induced by direct sunlight. The true day/night camera also includes a removable IR-cut filter for superior image quality around the clock. For protection against the elements, the camera dome is IP66-rated with a vandal-proof casing to withstand rain, dust, and vandalism. The heater (PoE/24 VAC only) further enhances the dome's performance and reliability in extremely weather conditions. The camera dome provides 3-axis adjustment for any angle of view.

Model	V960D-WN312 Series	V961D-WN312 Series	V962D-WN312 Series
<b>Image Sensor:</b>	1/2.5-inch progressive scan CMOS		
<b>Max Resolution:</b>	SD	720p	1080p
<b>Image Settings:</b>	Adjustable bit rate. Flip and mirror. Configurable brightness, contrast, color, hue, sharpness. White balance. AGC. AES. Automatic or manual day/night mode. BLC (Backlight Compensation). Digital zoom. Motion detection. Slow Shutter.		
<b>Shutter Speed:</b>	1/4, 1/10, 1/12.5, 1/15, 1/20, 1/25, 1/30, 1/50, 1/60, 1/100, 1/120, 1/240, 1/480, 1/960, 1/1024, 1/2000 sec		
<b>Electronic Zoom:</b>	2 ~ 100X (client software)		
<b>Day/Night Performance:</b>	IR cut filter, True Day/Night		
<b>S/N Ratio:</b>	Greater than 50 dB		
<b>Minimum Illumination:</b>	Color: 0.12 fc (1.25 lux); B/W: 0.014 fc (0.15 lux), slow shutter On; @f/1.6, 30 IRE (at SD)	Color: 0.07 fc (0.7 lux); B/W: 0.007 fc (0.08 lux), slow shutter On; @f/1.4, 50 IRE (at 720p and 1080p)	

## Lenses

<b>Focal Length:</b>	3.3-12 mm or 9-22 mm		
<b>Max. Aperture:</b>	f/1.6	f/1.4	
<b>Iris:</b>	DC iris/P-Iris on M models		
<b>Remote Zoom/Focus</b>	Yes (M models)		
<b>Horizontal Field of View:</b>	3.3-12 mm: 23.1° - 86.1° 9-22 mm: 12.6° - 30.9°	3.3-12 mm: 21° - 112.6° 9-22 mm: 11.5° - 38.8°	3.3-12 mm: 21° - 76.6° 9-22 mm: 11.5° - 27.8°

## Network Video Transmission

<b>Network:</b>	10Base-T, 100Base-TX, RJ-45		
<b>Image Compression:</b>	H.264 (Main Profile); M-JPEG available for 2nd stream		
<b>Resolution:</b>	640x480, 320x240, 704x480/576, 352x240/288	1280x720, 1280x720 (Wide), 1280x1024, 1024x768, 704x480/576, 640x480, 352x240/288, 320x240	1920x1080, 1280x720, 1280x720 (Wide), 1280x1024, 1024x768, 704x480/576, 640x480, 352x240/288, 320x240
<b>Protocol:</b>	IPv4, IPv6, TCP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, UDP, ARP		
<b>Frame Rate:</b>	2.5 ~ 30 fps (2.1 ~ 25 fps, PAL)		
<b>Users:</b>	Live viewing for up to 10 clients		
<b>Web Browser:</b>	Internet Explorer® 7.0 and above, Firefox®		
<b>Security:</b>	IP address filtering, HTTPS encrypted data transmission, password protection		

## Mechanical and Electrical

<b>Construction:</b>	Diecast aluminum base; polycarbonate clear dome		
<b>Camera Angle of Adjustment:</b>	3-axis adjustment, pan, tilt and roll (azimuth). 360° pan; 90° tilt; 360° rotation		
<b>Mounting:</b>	Surface mount. Mounting accessories available for wall and electrical box.		
<b>Dimensions:</b>	5.7 in. (145 mm) (Diam) x 4.6 in. (116.3 mm) (H), 3.9 in. (100 mm) (Dome Diam)		
<b>Weight:</b>	2.3 lb (1.06 kg)		
<b>Input Power:</b>	12 VDC, 24 VAC, PoE (IEEE 802.3af Class 0)		
<b>Current (MFZ Off/On):</b>	12 VDC: 431 mA/693 mA; 24 VAC: 326 mA/368 mA; PoE: Class 0	12 VDC: 441 mA/704 mA; 24 VAC: 368 mA/515 mA; PoE: Class 0	12 VDC: 425 mA/620 mA; 24 VAC: 213 mA/292 mA; PoE: Class 0
<b>Power Consumption (heater):</b>	24 VAC: 8.7 W; PoE: 10.1 W	24 VAC: 11 W; PoE: 10.3 W	24 VAC: 11.4 W; PoE: 12.1 W.

## Environmental

<b>Operating Conditions:</b>	Temp: -20 to 122° F (-29 to 50° C) with heater; Humidity: less than 90%, non-condensing
<b>Approvals:</b>	FCC Class A, CE, IP66
<b>Warranty:</b>	3 years

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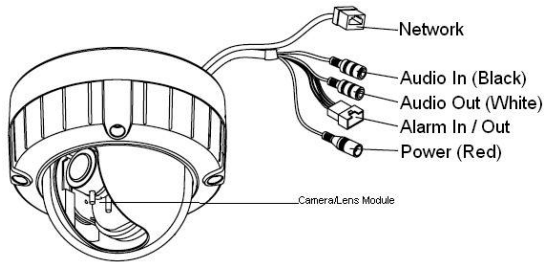
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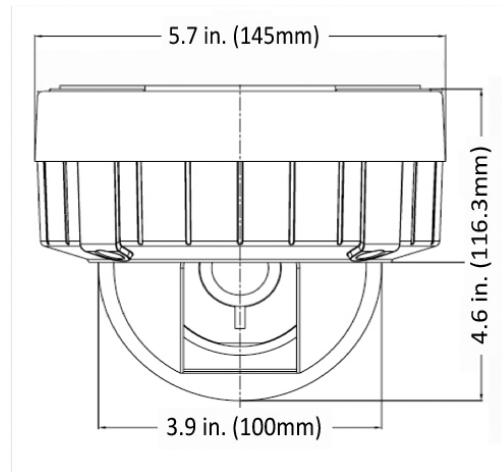
## Controls and Connectors

<b>External Controls:</b>	LED: status. Reset Button: sets factory defaults. Focus, Zoom: control knobs on non-motorized lens versions
<b>Connectors:</b>	Power: 12 VDC/24 VAC: RCA jack; PoE/Network: RJ-45 CAT 5. Alarm In/Out: AMP. Audio In and Out: jack (Audio Out requires external amplifier). Local Storage: Micro SD card slot. Composite output provided for installation (NTSC/PAL selectable).

### Connectors



### Dimensional Drawing



Resolution	Lens	Model Number
SD resolution (0.3 megapixel)	3.3 - 12 mm autoiris varifocal lens	V960D-WN312
	3.3 - 12 mm remote zoom and focus	V960D-WN312M
	9 - 22 mm remote zoom and focus	V960D-WN922M
720p resolution (1.3 megapixel)	3.3 - 12 mm autoiris varifocal lens	V961D-WN312
	3.3 - 12 mm remote zoom and focus	V961D-WN312M
	9 - 22 mm remote zoom and focus	V961D-WN922M
1080p resolution (2 megapixel)	3.3 - 12 mm autoiris varifocal lens	V962D-WN312
	3.3 - 12 mm remote zoom and focus	V962D-WN312M
	9 - 22 mm remote zoom and focus	V962D-WN922M

## Model Descriptions

Description	Model Number
Electrical box mounting adapter (4x4 and 2x4)	V960D-WADAPT
Conduit adapter (for use with SVFT mounts)	V960D-CA1
Surge Protectors	Refer to datasheet

## Mounting Accessories