

## V960D SERIES NETWORK INDOOR CAMERA DOME



- 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
- Surface or in-ceiling mounting

### Overview

Vicon's V960D Series of HD IP Camera Domes is designed for indoor 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 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.

Installation of the V960D is made easy and cost effective with Powerover Ethernet (IEEE802.3af), which eliminates the need for power cables. The camera also accepts 12VDC 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. The camera dome provides 3-axis adjustment for any angle of view.

Model	V960D-N312 Series	V961D-N312 Series	V962D-N312 Series
Image Sensor:	1/2.5-inch progressive scan CMOS		
Max Resolution:	SD	720p	1080p
Image Settings:	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.		
Shutter Speed:	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		
Electronic Zoom:	2 ~ 10X (client software)		
Day/Night Performance:	IR cut filter, True Day/Night		
S/N Ratio:	Greater than 50 dB		
Minimum Illumination:	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

Focal Length:	3.3-12 mm		
Max. Aperture:	f/1.6	f/1.4	
Iris:	DC iris/P-Iris (M models)		
Remote Zoom/Focus	Yes (M models)		
Horizontal Field of View:	86.1° - 23.1°	76.6° - 21°; 112.6° - 21° (wide; possibility of vignetting)	76.6° - 21°; 112.6° - 21° (wide; possibility of vignetting)

### Network Video Transmission

Network:	10Base-T, 100Base-TX, RJ-45		
Image Compression:	H.264 (Main Profile); M-JPEG available for 2nd stream		
Resolution:	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
Protocol:	IPv4, IPv6, TCP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, UDP, ARP		
Frame Rate:	2.5 ~ 30 fps (2.1 ~ 25 fps, PAL)		
Users:	Live viewing for up to 10 clients		
Web Browser:	Internet Explorer® 7.0 and above, Firefox®		
Security:	IP address filtering, password protection		

### Mechanical and Electrical

Construction:	Plastic base; polycarbonate clear dome		
Camera Angle of Adjustment:	3-axis adjustment, pan, tilt and roll (azimuth). 360° pan; 90° tilt; 360° rotation		
Mounting:	Surface mount; 4x4 electrical box or in-ceiling mounting with mounting accessory		
Dimensions:	4.9 in. (125 mm) (Diam) x 4.4 in. (113 mm) (H), 3.9 in. (100 mm) (Dome Diam)		
Weight:	0.9 lb (400 g)		
Input Power:	12 VDC, 24 VAC, PoE (IEEE 802.3af Class 0)		
Current: (MFZ Off/On):	12 VDC: 394 mA/709 mA; 24 VAC: 315 mA/452 mA; PoE: Class 2	12 VDC: 404 mA/725 mA; 24 VAC: 323 mA/462 mA; PoE: Class 2	12 VDC: 431 mA/788 mA; 24 VAC: 326 mA/483 mA; PoE: Class 2
Power Consumption (MFZ Off/On):	4.7 W/8.6 W	4.8 W/8.7 W	5.1 W/9.3 W

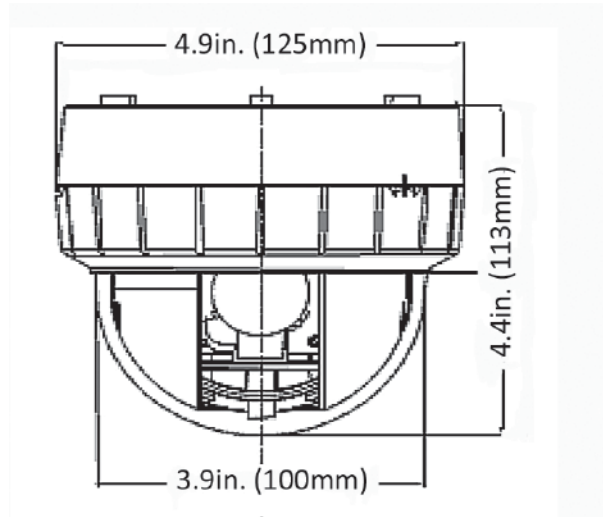
### Environmental

Operating Conditions:	Temp: 14 to 122° F (-10 to 50° C); Humidity: less than 90%, non-condensing		
Approvals:	FCC Class A, CE		
Warranty:	3 years		

## Controls and Connectors

External Controls:	LED: status. Reset Button: sets factory defaults. Focus, Zoom: control knobs on non-motorized lens versions
Connectors:	Power: 12 VDC/24 VAC: screw terminal; PoE/Network: RJ-45 CAT 5. Alarm/Audio: terminal block (Alarm Input, dry contact; Alarm Output, direct maximum load of 60 VDC/120 VAC @ 2A; external relay requires installation of diode. Audio Out requires external amplifier). Local Storage: Micro SD card slot. Composite output provided for installation (NTSC/PAL selectable).

## Dimensional Drawing



## Model Descriptions

Resolution	Lens	Model Number
SD resolution (0.3 megapixel)	3.3 - 12 mm autoiris varifocal lens	V960D-N312
	3.3 - 12 mm remote zoom and focus	V960D-N312M
720p resolution (1.3 megapixel)	3.3 - 12 mm autoiris varifocal lens	V961D-N312
	3.3 - 12 mm remote zoom and focus	V961D-N312M
1080p resolution (2 megapixel)	3.3 - 12 mm autoiris varifocal lens	V962D-N312
	3.3 - 12 mm remote zoom and focus	V962D-N312M

## Mounting Accessories

Model Number	Description
V960-ADAPT	Adapter that allows mounting to a 4x4 electrical box
V960D-KIT	In-ceiling mounting kit