

## V960B Series Network Bullet IR Camera



### Overview

Vicon's V960B Series of HD IP Bullet Cameras 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 lenses, a 3.3-12 mm motorized P-Iris lens or 3.3-12 mm manual DC iris; the 1080p version also is available with a 9-22 mm motorized P-Iris lens. The motorized lenses permit remote focus and zoom using the web browser interface.

The V960B 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
- 42 IR LEDs provide illumination in low-light environments
- Power-over-Ethernet (IEEE 802.3af), 24 VAC or 12 VDC
- Dual streaming video
- IP66 rated

Installation of the V960B 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 V960B 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 V960B provides 42 IR LEDs that illuminate up to 98 ft (30 m). For protection against the elements, the bullet camera is IP66-rated to withstand rain, dust, and vandalism. The heater (PoE/24 VAC only) further enhances performance and reliability in extremely weather conditions.

Model	V960B-IR312	V961B-IR312M	V962B-IR312M/ V962B-IR922M
<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 ~ 10X (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)	
<b>IR Illumination:</b>	42 IR LEDs; illuminate up to 98 ft (30 m); 30° angle of light		

## Lenses

<b>Focal Length:</b>	3.3-12 mm or 9-22 mm (V962B version only)		
<b>Max. Aperture:</b>	f/1.6	f/1.4	
<b>Iris:</b>	DC iris	P-Iris	P-Iris
<b>Remote Zoom/Focus</b>	Yes (M models)		
<b>Horizontal Field of View:</b>	86.1° - 23.1°	76.6°-21°; 112.6°- 21° (wide; possibility of vignetting)	3.3-12: 76.6° - 21°; 112.6°- 21° (wide; possibility of vignetting); 9-22: 27.8° - 11.5°

## 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		
<b>Mounting:</b>	Mounting bracket for wall or ceiling mounting		
<b>Dimensions:</b>	3.4 in. (85.2 mm) (Diam) x 3.6 in. (91.6 mm) (H), 7.4 in. (188.5 mm) (Length)		
<b>Weight:</b>	1.6 lb (0.74 kg)		
<b>Input Power:</b>	12 VDC, 24 VAC, PoE (IEEE 802.3af Class 0)		
<b>Current (mA) (MFZ Off/On/IR On):</b>	12 VDC: 345/-/680; 24 VAC: 305/-/533; PoE: 86/-/158	12 VDC: 342/532/691; 24 VAC: 312/433/704; PoE: 89/128/161	12 VDC: 385/566/730; 24 VAC: 335/460/572; PoE: 96/136/169
<b>Power Consumption (W) (MFZ Off/On/Heater On):</b>	12 VDC: 4.1/-/8.2; 24 VAC: 4.5/-/8.1; PoE: 4.1/-/7.6	12 VDC: 4.1/6.4/8.4; 24 VAC: 4.6/6.5/8.2; PoE: 4.3/6.1/7.7	12 VDC: 4.6/6.8/8.8; 24 VAC: 5.0/6.9/8.7; PoE: 4.6/6.5/8.1

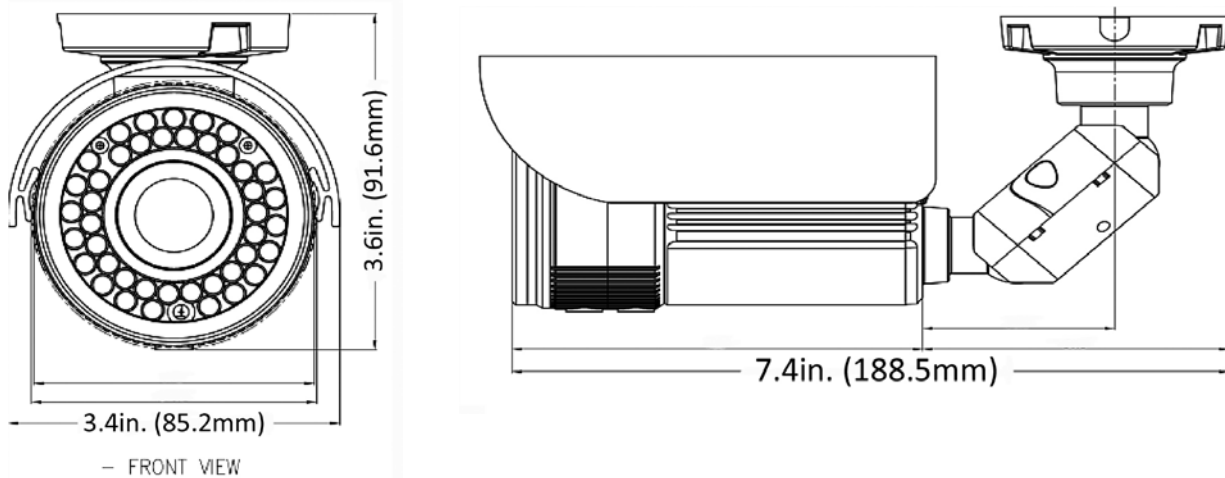
## Environmental

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

### 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 (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



Resolution	Description	Model Number
SD resolution (0.3 megapixel)	3.3 - 12 mm autoiris varifocal lens	V960B-IR312
720p resolution (1.3 megapixel)	3.3 - 12 mm remote zoom and focus	V961B-IR312M
1080p resolution (2 megapixel)	3.3 - 12 mm remote zoom and focus	V962B-IR312M
1080p resolution (2 megapixel)	9 - 22 mm remote zoom and focus	V962B-IR922M

### Model Descriptions