



## Overview

Vicon's V940B Series of HD IP Bullet Cameras is designed for performance in the most demanding security installations. There are 1080P (2 MP), 4 MP and 5 MP models with a motorized varifocal autoiris lens; there are two additional 2 MP models with enhanced WDR (132 dB) and sensitivity (starlight). Starlight technology delivers the highest quality video even in extremely low-light conditions, providing video in color when a typical camera has switched to B&W mode. The camera includes IR illuminators. The camera offers Smart IR technology that maintains proper exposure in the scene and includes narrow and wide angle LEDs that manage beam spread that adjusts to the lens field-of-view.

The V940B Series provides triple-streaming video and supports H.264/H.265 compression technology, significantly reducing file sizes and conserving valuable network bandwidth. The camera provides Smart Encoding, which monitors the amount of motion in a scene, resulting in overall savings in storage requirements and bandwidth without sacrificing video quality. M-JPEG compression is also provided.

## Product at a Glance

- ▶ 2 MP, 4 MP and 5 MP models; starlight (ultra-high-sensitivity) 2 MP model provides high-quality video even in extremely low-light environments
- ▶ H.265/H.264 compression
- ▶ True WDR (120 dB); 2 MP model with 132 dB WDR
- ▶ Smart IR LED technology (98 ft/30 m range)
- ▶ Smart encoding
- ▶ Motorized zoom and focus varifocal lens
- ▶ 0.01 lux low light capabilities (color)
- ▶ Video Content Analysis (VCA)
- ▶ Museum Search
- ▶ Triple streaming
- ▶ Power-over-Ethernet, 12 VDC or 24 VAC
- ▶ Two-way audio
- ▶ Analog composite video out
- ▶ SD card slot for on-camera storage
- ▶ IP67 rated for outdoor environments
- ▶ Surface mounting; back box option

The bullet camera is designed for easy installation. Power over Ethernet (IEEE 802.3af) eliminates the need for power cables, providing a cost-effective method of installation. The camera also accepts 24 VAC and 12 VDC. The V940B can be mounted on a wall using the integral wall mount (an optional backbox is available); the integral mount provides 90° adjustment for angle of view. 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 V940B series features an autoiris lens to adjust the lens opening to the changing light levels. The true day/night progressive scan camera also includes a removable IR cut filter for superior image quality in all lighting conditions. Wide Dynamic Range further improves video exposure quality in scenes with high contrast between bright and dark areas.

For protection against the elements, the bullet camera is IP67 rated to withstand rain, dust, and vandalism; it is secured by tamperproof screws.

**SPECIFICATIONS**

Model	V942B-W312MIR	V942B-W310MIR-XW	V942B-W310MIR-XS (Starlight)	V944B-W312MIR	V945B-W310MIR
<b>Image Sensor:</b>	1/3-inch progressive scan CMOS Sensor	1/2.8 inch progressive scan CMOS Sensor	1/1.9 inch progressive scan CMOS Sensor	1/3 inch progressive scan CMOS Sensor	1/1.8 inch progressive scan CMOS Sensor
<b>Max Resolution:</b>	1920 x 1080 (1080p)			2592x1520 (4 MP)	2592x1944 (5 MP)
<b>Image Settings:</b>	Digital image effects: mirror (horizontal and vertical) and corridor. Configurable brightness, contrast, saturation, chroma, sharpness. White balance. Gain control (AGC). Electronic shutter speed. Day/night mode. Dynamic Noise Reduction (3D). Motion detection (4 programmable zones). Privacy masking (4 masks). ROI (8 zones). Event notification.				
<b>Video Contents Analytics:</b>	EIS, Defog, Video Contents Analysis (including Intrusion Detection, Line Cross Detection and Camera Tampering, which includes Scene Change, Defocus, Low/High Brightness); Museum Search				
<b>Electronic Shutter Speed:</b>	Auto (1 ~ 1/30,000 sec), manual				
<b>Day/Night Performance:</b>	True day/night (IR cut filter)				
<b>Wide Dynamic Range</b>	True WDR; 120 dB	132 dB	True WDR; 120 dB		True WDR @15 fps; Digital WDR at @30 fps
<b>Minimum Illumination:</b>	Color: 0.01 lux @f/1.4, 30 IRE; AGC On, BW: 0.0 lux, IR On	Color: 0.01 lux; BW: 0.001 lux @f/1.4 AGC On, 0.0 lux, IR On	Color: 0.002 lux; BW: 0.0006 lux @f/1.5 AGC On, 0.0 lux, IR On	Color: 0.01 lux @f/1.4 30 IRE, AGC On, BW: 0.0 lux, IR On	Color: 0.1 lux; BW: 0.02 lux @f/1.5 AGC On, 0.0 lux, IR On
<b>IR Distance:</b>	98 ft (30 m) (850 nm); Smart IR LED technology				

**Lenses**

<b>Focal Length:</b>	2.7-12 mm	3-10.5 mm	3.6-10 mm	2.7-12 mm	3.6-10 mm
<b>Max. Aperture:</b>	f/1.4		f/1.5	f/1.4	f/1.5
<b>Iris:</b>	Autoiris				
<b>Zoom/Focus Adjust:</b>	Motorized zoom and focus (supporting auto focusing)				
<b>Field of View:</b>	29.8° (tele) - 85° (wide)	33° (tele) - 92.5° (wide)	44.3° (tele) - 101.8° (wide)	31° (tele) - 94° (wide)	38.4° (tele) - 87.9° (wide)

**Network Video Transmission**

<b>Network:</b>	10Base-T, 100Base-TX, RJ-45				
<b>Image Compression:</b>	H.264; H.265; M-JPEG				
<b>Resolution:</b>	2 MP: Major streams: 1920x1080 (1080P), 1280x720/960 (720P); Minor streams: 920x1080 (1080P), 1280x720/960 (720P), 720x576, 704x480/576 (D1), 640x360/480 (VGA), 352x288, 320x240 (QVGA); MJPEG: 1920x1080 (1080P), 1280x720/960 (720P) 4 MP: Major streams: 2592x1520, 2048x1520, 2304x1296, 1920x1080 (1080P), 1280x720/960 (720P); Minor streams: 1920x1080 (1080P), 1280x720/960 (720P), 720x576, 704x480/576 (D1), 640x360/480 (VGA), 352x288, 320x240 (QVGA); MJPEG: 1920x1080 (1080P), 1280x720/960 (720P) 5 MP: Major streams: 2592x1944, 2592x1520, 2048x1520, 2304x1296, 1920x1080 (1080P), 1280x720/960 (720P); Minor streams: 1920x1080 (1080P), 1280x720/960 (720P), 720x576, 704x480/576 (D1), 640x360/480 (VGA), 352x288, 320x240 (QVGA); MJPEG: 1920x1080 (1080P)				
<b>Protocol:</b>	IPv4/IPv6, TCP, HTTP, HTTPS, RTSP, RTCP, RTP, SMTP, DHCP, NTP, FTP, DDNS, UDP, uPnP, ARP, QoS, IGMP, SNMP (V3), TLS, SSL, 802.1x, PPPoE, DNS, ICMP				
<b>Frame Rate:</b>	2592x1520 @ 20 fps; 2048x1520 @ 30 fps			2592x1520 @ 20 fps; 2048x1520 @ 30 fps; 1920x1080 @ 30 fps	2592x1944 @ 30 fps; 2592x1520 @ 30 fps; 2048x1520 @ 30 fps; 1920x1080 @ 30 fps*
<b>Streams:</b>	Triple streams: H.264/H.265 - 2; H.264/H.265/M-JPEG - 1				
<b>Users:</b>	10 users				
<b>Web Browser:</b>	Internet Explorer® (min IE8)				
<b>Security:</b>	IP address filtering, HTTPS encrypted data transmission, SSL, password protection				
<b>Alarm:</b>	2 inputs/1 output				
<b>Audio Streaming:</b>	1 input/1 output; 2-way G.711 codec				

\*With T-WDR: 2592x1944/1520 @ 15 fps; 2048x1520 @ 15 fps 1920x1080 @ 30 fps

Data Sheet Number: V291-00-03  
 Vicon Data Sheet Number: 8009-7291-00-03

Dated: 1/2018  
 Specifications subject to change without notice.  
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**SPECIFICATIONS**

**Mechanical**

Construction:	Aluminum
Camera Angle of Adjustment:	Integral wall mount allows 90° tilt adjustment, 360° rotation
Mounting:	Integral wall mount
Dimensions:	3.33 in. (84.6 mm) (H) x 3.54 in. (90 mm) (W) x 11.83 in. (300.4 mm) (D)
Weight:	2.09 lb (0.95 kg)

**Electrical**

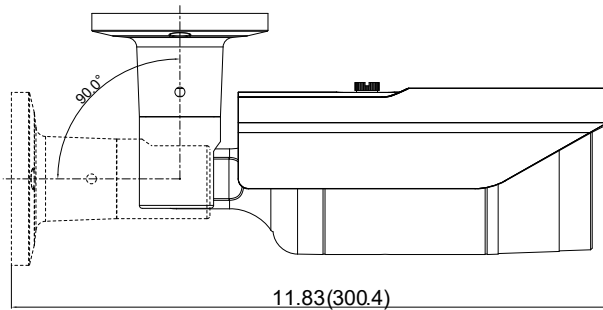
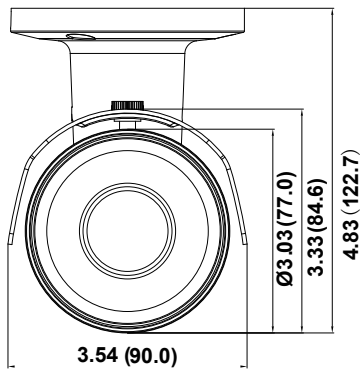
Input Power:	PoE IEEE 802.3af, 12 VDC, 24 VAC
Current (IR on):	12 VDC: 833 mA; 24 VAC: 427 mA
Power Consumption (IR on):	<10 W
Storage:	Slot for SD/SDHC/SDXC card on camera (128G max; card not supplied)

**Controls and Connectors**

Connectors:	Power: standard jack for adapter; PoE/Network: RJ-45 CAT 5. Alarm In/Out: pin connectors. Audio In and Out: RCA jack. Analog Video Output: BNC. Local Storage: SD card slot.
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**Environmental**

Operating Conditions:	Outdoor Rated Temp: -40 to 140° F (-40 to 60° C) Humidity: up to 90%, non-condensing
Approvals:	FCC Class A, CE, IP67
Warranty:	3 years



Dimension Drawing  
in. (mm)

**Ordering Information**

Resolution	Lens	Model Number
1080 p resolution (2 MP)	2.7-12 mm motorized zoom and focus	V942B-W312MIR
1080p resolution (2 MP); 132 dB WDR	3-10.5 mm motorized zoom and focus lens	V942B-W310MIR-XW
1080p resolution (2 MP); ultra-high-sensitivity	3.6-10 mm motorized zoom and focus lens	V942B-W310IR-XS
4 MP	2.7-12 mm motorized zoom and focus	V944B-W312MIR
5 MP	3.6-10 mm motorized zoom and focus lens	V945B-W310MIR
Mounting Options		
Back Box 	For ease of cabling	V940B-BOX