



V2005B-VF312-B

Roughneck Pro Network bullet Camera



Overview

The Vicon Roughneck® Pro V2005B-VF312-B HD IP Bullet Camera is a high-performance 5MP surveillance solution designed for professional and commercial security installations. Equipped with an advanced AI Engine Gen 2, the camera delivers intelligent analytics and precise detection capabilities.

Its motorized varifocal lens with remote zoom, focus, and iris control ensures sharp, high-quality imaging, while Smart/Adaptive IR LEDs provide superior visibility up to 164 ft (50 m) in low-light and nighttime conditions. The camera supports multi-exposure HDR for balanced imaging in challenging lighting environments, and includes dual iris support (Auto-IRIS & P-IRIS) for enhanced depth of field and exposure control.

The V2005B-VF312-B supports quad streaming with H.265/H.264 compression and M-JPEG options, minimizing bandwidth consumption and storage requirements. 3D Motion Compensated Noise Reduction (MCTF) further enhances image clarity in low-light scenes. Local recording is supported via microSD/SDHC/SDXC card slot for edge storage.

Engineered for reliability, the camera offers triple power support (PoE/12VDC/24VAC), and its IP66 weatherproof and IK10 vandal-resistant housing makes it suitable for harsh outdoor environments. The unit is fully compatible with Vicon Valerus™ VMS as well as most ONVIF Profile S/G/T/M compliant video management systems.

Product at a Glance

- ▶ 5MP Resolution
- ▶ AI Engine Gen 2 (Deep Neural Network Accelerated Engine)
- ▶ Multi Exposure HDR
- ▶ Remote Zoom/ Focus/ IRIS Control on AF Lens
- ▶ H.265/H.264 compression; M-JPEG compression
- ▶ Dual IRIS Support (Auto-IRIS & P-IRIS)
- ▶ 164 ft/50 m IR range; Smart IR/ Adaptive IR
- ▶ Motorized zoom and focus varifocal lens
- ▶ Quad Streaming
- ▶ True Day/Night function (ICR) True WDR (120 dB)
- ▶ 3D Motion Compensated Noise Reduction (MCTF)
- ▶ Micro SD/ SDHC/ SDXC Card support
- ▶ ONVIF Profile S/ G/ T/ M support
- ▶ Triple Power Support (PoE/ DC12V/ AC24V)
- ▶ Weatherproof (IP66) and Vandal Proof (IK10 Rating)

Specifications

Model	V2005B-VF312-B
Camera	
Image Sensor:	1/2.7" Progressive CMOS
Max Resolution:	2688 (H) X 1944 (V) (5MP)
Image settings	Digital image effects: OSD (time, date, camera name, custom text, image); Brightness/Contrast/Saturation/Sharpness/Hue; Exposure Management, WDR Corridor; Mirror (Flip Normal/Vertical/Horizontal/180°/90° Clockwise/90° Counterclockwise); Backlight control (BLC); White Balance (AWB/manual); Anti-flicker; Gain control (auto/manual); Digital noise reduction (2D/3D DNR); ROI (areas each for stream 1 and 2); Privacy Mask (5 areas) ; Motion Detection; Tamper Detection
Video Content Analysis (VCA)	Motion, Tampering, Line Crossing, Object in Zone, Crossline counting, Occupancy in zone, Loitering, Parking Violation, Wrong Way, People Gathering, Face Recognition, Face Detection, Auto Face Enrolment, Violence Detection, LPR, Vehicle Recognition, Abandoned Object, Object classification (Human, Vehicle) and Object Attributes(Gender, Age, Color, Type, Band), Removed Object, Heat Map, Safety: PPE Detection
Electronics Shutter Speed:	1~ 1/37,440 sec
Day/Night Performance:	Removable IR Cut Filter
High Dynamic Range	Gen3 Engine
EIS	Yes
Minimum Illumination:	Color: 0.08 lux; BW: 0.008 lux (IR On)
Signal-to-Noise Ratio:	≥50 dB
IR Distance:	Smart IR; up to 164 ft (50 m)
Lenses	
Focal Length:	2.7-12 mm
Max. Aperture:	F1.4
Iris:	P-Iris
Zoom/Focus Adjust:	Motorized zoom and smart focus, Optical zoom, Digital zoom
Field-of-view: Horizontal/Vertical	31.53° (tele) - 102.14° (wide)/22.71° (tele) - 70.28° (wide)
Network Video Transmission	
Network:	10/100/1000 Mbps Base-T: RJ-45; TCP/IP-based Ethernet network
Image Compression:	H.264; H.265; M-JPEG
Resolution:	2688x1944, 2560x1440, 2048x1536, 2304x1296, 1920x1080 (1080P), 1600x1200, 1440x1080, 1600x900, 1280x960/720, 800x600, 640x480/360, 320x240/180
Protocol:	ARP, PPPOE, IPv4/v6, ICMP, IGMP, QOS, TCP, UDP, DHCP, UPnP, SNMP, SMTP, RTP, RTSP, RTCP, HTTP, HTTPS, FTP, NTP, DDNS, 802.1X. ICMP, TCP/IP, Config, ONVIF Profile S/G/T/M
Streaming:	Unicast and Multicast streams. Quad streaming. Up to 4 individually configurable streams in H.265/H.264/MJPEG Configurable resolution/frame rate/bandwidth LBR/VBR/CBR in H.265/H.264
Frame Rate	30/25 fps
Data Rate:	Rate control: LBR/VBR/CBR
Mean Time Before Failure:	MTBF: 100,000 hours
Web Browser:	Microsoft® Edge®, Chrome®, Firefox®
Security:	IP address filtering, HTTPS encrypted data transmission, SSL, multi-user authority, Password Security, User Authentication/HTTPS/ IP Filter/ IEEE 802.1x, TLS 1.0/1.2/1.3, DES, AES, User Access Log
Event Trigger:	External Input, Analytics, Network Failure Detection, Periodical Event, Manual Trigger
Notifications:	Send message via Email/record to FTP/NAS/SD card, record JPG/mp4
Users:	Live viewing for up to 10 clients
Audio I/O:	1/1 (line in/line out)
Audio Streaming:	G.711/G.726/ AAC/ LPCM; 2 Way

Specifications

Model	V2005B-VF312-B
Camera	
Alarm Relay:	1 In and 1 Out
Storage:	Support for microSD/ microSDHC/ microSDXC card (up to 512 GB max) Support for recording to NAS
Mechanical	
Construction:	Metal and Plastic
Camers Angle of Adjustment:	Adjusted using integral wall mount
Mounting:	Surface mount
Dimensions:	92x224.6 mm
Weight:	1.72 lb (0.78 kg)
Electrical	
Input Power	POE IEEE802.3af, class 0, max 12.90 watt DC12V, max 15.24 watt AC24V, max 13.19 watt, max 25.20 VA
Power Consumption	12.9W (PoE), 15.2W (12V DC), or 13.2W / 25.2VA (24V AC)
Controls and Connectors:	PoE, Video, Data: RJ-45; Power: DC12V/AC 24V Terminal Block; Alarm In/Out: terminal block; Audio In/Out: jacks(3.1mm); USB-C Port; Reset button
Enviromental	
Operating Conditions	Operating Temp: -22° to 131° F (-30° to 55° C) without Heater, -131° to 131° F (-55° to 55° C) with Heater Humidity: 10% to 90%, non-condensing
Storage Conditions	-20° to 70° C
Approvals:	UL, FCC, CE, IK10, IP67;RoHS; NDAA compliant; STQC/BIS:ER compliant
Country of Origin:	Taiwan
Warranty:	5 Years

Ordering Information

Model	V2005B-VF312-B
Description	OUTDOOR BULLET CAMERA; 5 MP; HDR; 2.7-12 mm motorized varifocal lens; IR; NDAA/GSA/TAA compliant;

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