VICON

V2005BX-NL-B
Roughneck Pro Network Box Camera

NDAA GSA ONVIF S/G/T/M TAA

Overview

The Vicon Roughneck® Pro V2005BX-NL-B HD IP Box Camera is a professional-grade 5MP surveillance camera engineered for high-performance security installations. Incorporating the AI Engine Gen 2 (Deep Neural Network Accelerated Engine), it provides advanced analytics and reliable detection for critical monitoring applications.

Equipped with a motorized varifocal lens, the camera ensures sharp, detailed imaging, while the optional Auto Back Focus (ABF) feature simplifies installation and guarantees precise focus. Multi-exposure HDR technology enhances visibility in high-contrast environments, and 3D Motion Compensated Noise Reduction (MCTF) improves low-light performance. The True Day/Night ICR function ensures accurate color reproduction by day and superior monochrome imaging at night.

The camera supports quad streaming with multi-codec compression (H.265/H.264/MJPEG), effectively reducing bandwidth and storage requirements without compromising image quality. Local edge recording is available via microSD/SDHC/SDXC card support, while RS-485 connectivity enables seamless integration with external devices.

Offering triple power input options (PoE/12VDC/24VAC), the V2005BX-NL-B provides flexible deployment in diverse installation environments. Fully compliant with ONVIF Profiles S, G, T, and M, it integrates seamlessly with Vicon Valerus™ VMS and a wide range of third-party platforms.

Product at a Glance

▸ 5MP Resolution

▸ Auto Back Focus (ABF) Option

▸ AI Engine Gen 2 (Deep Neural Network Accelerated Engine)

▸ Multi Exposure HDR

▸ Multi Codec support (H.265/H.264/MJPEG)

▸ Quad Streaming

▸ True Day/Night function (ICR) True WDR (120 dB)

▸ 3D Motion Compensated Noise Reduction (MCTF)

▸ Micro SD/ SDHC/ SDXC Card support

▸ RS485 Support

▸ Triple Power Support (PoE/ DC12V/ AC24V)

▸ ONVIF Profile S/ G/ T/ M support

Specifications

Model	V2005BX-NL-B
Camera	
Image Sensor:	1/2.7" Progressive CMOS
Max Resolution:	2608 (H) X 1964 (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:	1~1/67,500 sec
Day/Night Performance:	Automatically removable IR-cut filter
High Dynamic Range	Yes
EIS	Yes
Minimum Illumination:	Color: 0.08 lux; BW: 0.008 lux (IR On)
Signal-to-Noise Ratio:	≥ 50 dB
Lenses	
Lens Type:	CS/i-CS Mount, Remote Focus (ABF)
Iris:	P-Iris, Auto-Iris
Focus Control	Auto Back-focus (ABF) button in web for easy focus adjustment
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:	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:	50/60 fps
Web Browser:	Microsoft® Edge®; Google® Chrome®, Mozilla® Firefox®
Security:	User Authentication, HTTPS, IP Filter, IEEE 802.1x, SSL, TLS 1.0/1.2/1.3, DES, AES, Password Security, 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/0:	1/1 (line in/line out), Microphone built-in
Audio Streaming:	G.711/G.726/ AAC/ LPCM; 2 Way
Alarm Relay:	2 In and 1 Out
Storage:	Support for microSD/ microSDHC/ microSDXC card (up to 2 TB max) Support for recording to NAS

Specifications

Model	V2005BX–NL–B
Mechanical	
Construction:	Metal and Plastic
Camers Angle of Adjustment:	Mount dependent
Diamensions:	138x75x52 mm
Weight:	1.17lb (0.53 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: 12 VDC plug; Alarm In/Out: terminal block; Audio In/Out;USB-A;RS485 Terminal block; Reset button
Enviromental	
Operating Conditions	Operating Temp: -22° to 131° F (-30° to 55° C) Humidity: 10% to 90%, non-condensing
Storage Conditions	-20° to 70° C
Approvals:	UL, FCC, CE; NDAA compliant; STQC/BIS:ER compliant
Country of Origin:	Taiwan

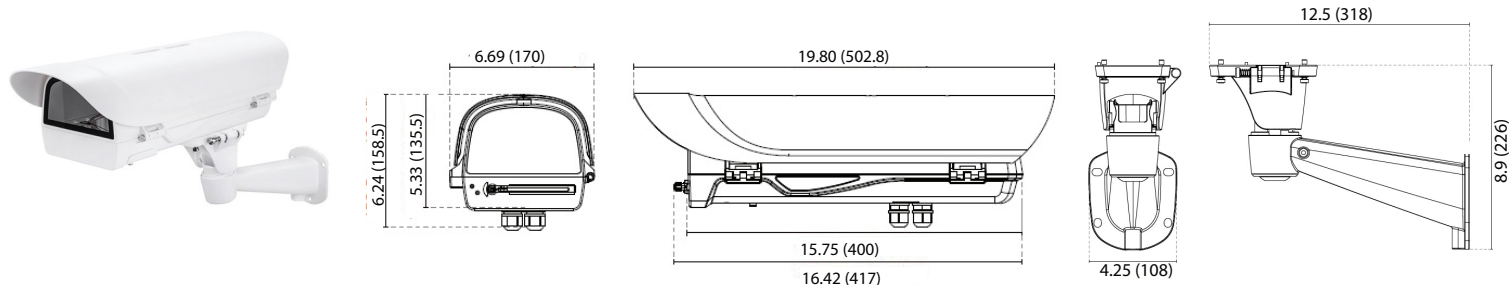| Model	V–HSG–POE
Housing	
Viewing Window:	Chemically strengthened glass
Construction:	Cast aluminum
Cabling:	4x M16 waterproof cable glands
De-icing Window Heater:	≤68° F (20° C) On; ≥86° F (30° C) Off; 10 W
Fan:	≥95° F (35° C) On; ≤77° F (25° C) Off; 2 W
Power Input:	60 W /90 W IEEE 802.3bt PoE, 50 ~ 57 VDC
IR Features:	2 LEDs; Beam Angle: 10°-40°, DIP switch selectable; Distance: 164-459 ft (50-140 m); Wavelength: 850 nm; 12 W
Coating:	White epoxy powder coating
Ratings:	Weather: IP68; Vandal: IK10
Operating Temperature:	-4° F~149° F (-20° C~ 65° C) -4° F~ 122° F (-20° C ~ 50° C) with IR LEDs
Weight:	8.5 lb (3.85 kg)
Country of Origin:	Taiwan

Specifications

Model	V0950VF–ICS	V0850	V0413	V0550
Lens				
Imager Format:	1/1.8 in.	1/2.7 in.	1/1.8 in.	1/2.7 in.
Mount Type:	CS	CS	CS	CS
Focal Length:	9 - 50 mm	8 - 50 mm	4 - 13 mm	5 - 55 mm
Aperture:	f/1.5	f/1.4	f/1.4	f/1.6
Field-of-View	W: 33.7° X 19.1° T: 6.6° X 3.8°	W: 40.2° × 22.6° T: 6.6° × 3.8°	W: 67.9° × 50.6° T: 21.8° × 16.3°	W: 67.9° × 50.6° T: 21.8° × 16.3°
Iris:	Stepping motor	P-Iris	P-Iris	DC Auto-Iris
IR correction	Yes	Yes	Yes	Yes
Varifocal:	Yes	Yes	Yes	Yes

Ordering Information

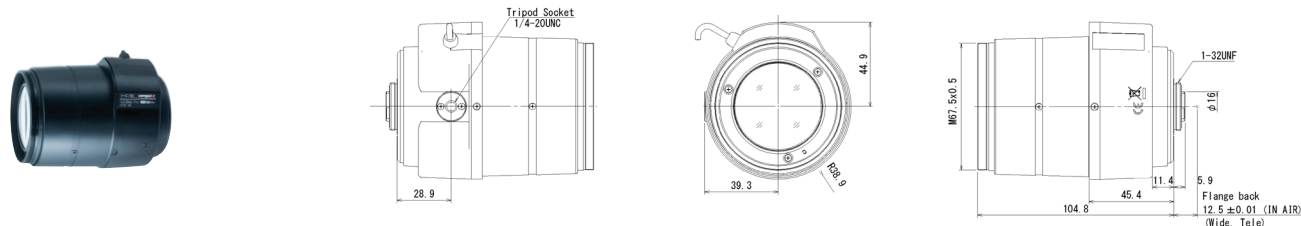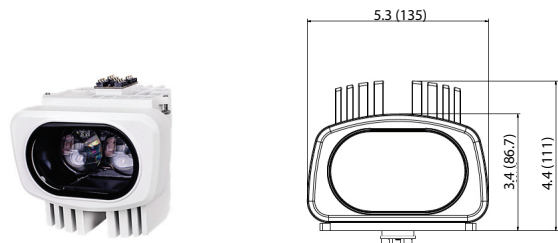| Model	V2005BX–NL–B
Description	BOX CAMERA; 5 MP; HDR;ABF; NDAA/GSA compliant; UL Listed, STQC/ER Compliant
Accessories	
V-0950VF-iCS	9-50 mm focal length; i-CS lens; CS mount
V0550	5-55 mm focal length; DC Auto-Iris CS mount
V0850	8-50 mm focal length; P-Iris CS mount
V0413	4-13 mm focal length; P-Iris CS mount
HPOE-100	Vandalproof (NEMA 4X/IP66/IK10) outdoor Housing: IR LEDs, 262 ft/80m; defog heater, heater, fan; PoE+ power input; cable management bracket;
V-HSG-POE	Vandalproof (IP68/IK10) outdoor housing with built-in PoE management; includes window heater/fan and wall mount
V-IR-140	IR illuminator option for the V-HSG-POE; 164 - 459 ft (50 - 140 m) distance, 10° - 40° beam angle
V-HSG-PM	Pole mount adapter

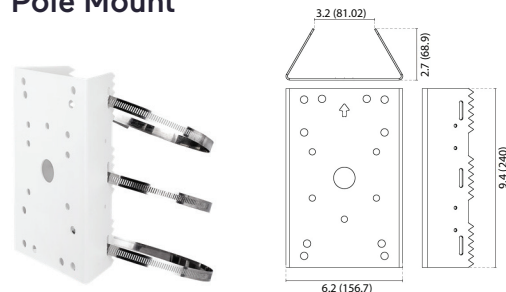## Housing with Wall Mount: V-HSG-POE

6.69 (170)
19.80 (502.8)
12.5 (318)
6.24 (158.5)
5.33 (135.5)
8.9 (226)
15.75 (400)
16.42 (417)
4.25 (108)

Box Camera

75.6
52.4
138.5
Unit: mm

Lens: V0950VF-ICS

Tripod Socket
1/4-20UNC
44.9
1-32UNF
M67.5x0.5
φ16
28.9
39.3
R38.9
11.4
5.9
104.8
45.4
Flange back
12.5 ±0.01 (IN AIR)
(Wide, Tele)

IR Illuminator

5.3 (135)
3.4 (86.7)
4.4 (111)

Pole Mount

3.2 (81.02)
2.7 (68.9)
9.4 (240)
6.2 (156.7)