



V2012FE-B

Roughneck Pro Network Panoramic Camera



Overview

Vicon's Roughneck® Pro V2012FE-B HD Panoramic Dome Camera is an advanced 12MP surveillance solution designed to deliver exceptional image clarity and wide-area coverage with a single device. Featuring an integral fisheye lens, it provides a true 360° hemispherical view that eliminates blind spots and ensures complete situational awareness in both indoor and outdoor environments. Engineered with robust construction and vandal-resistant design, the camera is ideal for mission-critical applications requiring continuous monitoring, whether installed in ceilings, walls, or exposed outdoor areas. With IP66 weatherproof and IK10 impact resistance ratings, the camera offers long-term durability even under harsh environmental conditions.

The V2012FE-B leverages a 12MP high-resolution sensor combined with edge and backend dewarping to provide flexible display modes, including digital PTZ, panorama, and quad view. Powered by the AI Engine Gen 2 with deep neural network acceleration, the camera enables intelligent event detection and advanced video analytics, enhancing operational efficiency and reducing false alarms. High Dynamic Range (HDR) and superior low-light sensitivity ensure optimal performance in challenging lighting conditions, while multi-codec support (H.265/H.264/MJPEG) with quad streaming delivers efficient bandwidth management without compromising video quality.

Designed for seamless system compatibility, the camera integrates effortlessly with Vicon Valerus™ VMS as well as a wide range of ONVIF-compliant platforms, supporting ONVIF Profiles S, G, T, and M. Additional features include a true day/night function with ICR, 3D motion-compensated noise reduction (MCTF), integrated IR LEDs with up to 15m illumination distance, and on-board storage via MicroSD/SDHC/SDXC cards. With its advanced imaging technology, rugged design, and intelligent analytics, the Roughneck® Pro V2012FE-B offers a comprehensive, reliable, and future-ready panoramic surveillance solution for security professionals.

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Product at a Glance

- ▶ 12MP Resolution
- ▶ Edge Dewarping/Backend Dewarping
- ▶ AI Engine Gen 2 (Deep Neural Network Accelerated Engine)
- ▶ Multiple Dewarp Display Mode
Digital PTZ/ Panorama View/
Quad View
- ▶ HDR and High Sensitivity
- ▶ Multi Codec support
(H.265/H.264/MJPEG)
- ▶ Quad Streaming
- ▶ True Day/Night function (ICR)
- ▶ 3D Motion Compensated
Noise Reduction (MCTF)
- ▶ Micro SD/ SDHC/ SDXC Card support
- ▶ IR LED (working distance up to 15m)
- ▶ Weatherproof (IP66)
- ▶ Vandal Proof IK10
- ▶ ONVIF Profile S/ G/ T/ M support

Specifications

Model	V2012FE-B
Camera	
Image Sensor:	Sony 12.5M, 1/1.6" Sony Progressive CMOS
Max Resolution:	3520 (H) X 3520 (V) (12MP)
Image settings	Brightness, Sharpness, Contrast, Saturation, Hue, White Balance, Exposure Control, Defog, 3DNR, 2DNR, Colour Noise reduction, Text Overlay, ROI (areas each for stream 1 and 2); Privacy Mask (5 areas); Motion Detection (4 areas);
Video Content Analysis (VCA)	Motion Detection, Tampering, Audio detection, Network Failure Detection, Line Crossing, People Counting, Human/Vehicle Classification, Object Classification
Electronics Shutter Speed:	Auto: 1~ 1/10,000 sec, Manual
Day/Night Performance:	Removable IR-cut filter
WDR	120 dB
High Dynamic Range	Yes
Signal-to-Noise Ratio:	≥55 dB
Lens	
Type:	1/1.6" Fisheye Lens, F2.0
Focal Length	1.7mm
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:	3520 x 3520, 2992 x 2992, 1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768, 800 x 600, 720 x 480, 640 x 480, 640x360, 640x512, 352x240
Protocol:	RTP/RTSP/RTSP over HTTP, RTP over UDP/TCP, MJPEG over HTTP, HTTP/HTTPS, TCP/IP, UDP, IPv4/IPv6, WebSocket, MQTT, SNMP v1/v2/v3, UPnP, LLDP, DDNS, RTMP, SMTP, FTP, HTTP Notification, IEEE 802.1X, QoS, VLAN, PPPoE, Multicast, ARP, ICMP, IGMP, NTP, ONVIF: S, G, T, M
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
Web Browser:	Microsoft® Edge®, Google® Chrome®, Mozilla® Firefox®
Security:	Multi-user authentication with role-based access control, HTTP/RTSP Digest authentication, Account lockout protection, HTTPS (SSL/TLS) encryption, IP filtering (IPv4/IPv6), IEEE 802.1X (EAP-MD5/TLS 1.3/TLS/PEAP), SNMP v3 (MD5/SHA-512, DES/AES), Certificate management (Self-signed & CA), Secure event transmission (SMTP/FTP/HTTP), System logging & audit trail, VLAN & QoS support, TPM 2.0, FIPS 140 compliant
Event Trigger:	Motion Detection/Tampering/Audio detection
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), Microphone built-in, Speaker Line out
Audio Streaming:	G.711/G.726/ AAC/ LPCM; 2 Way
Camera	
Alarm Relay:	1 In and 1 Out
Storage:	Support for microSD/ microSDHC/ microSDXC card (up to 1.5 TB max) Support for recording to NAS

Specifications

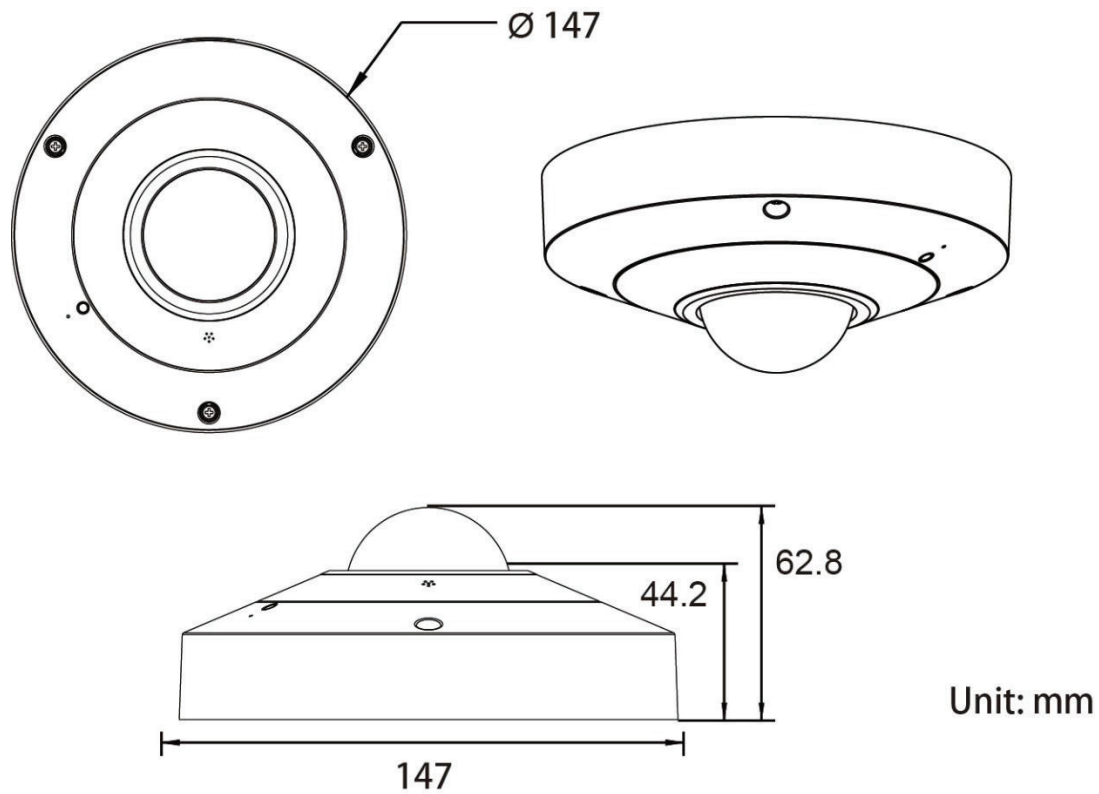
Model	V2012FE-B
Mechanical	
Construction:	Housing: White aluminum base. Bubble: PC.
Mounting:	Surface mounting: wall or ceiling; refer to ordering information for mounting options
Dimensions:	147x62.8 mm
Weight:	1.54 lb (0.7 kg)
Electrical	
Input Power	PoE IEEE802.3at, class 4, max 20.61 watt DC12V, max 19.24 watt
Power Consumption	20.61W (PoE+), 19.24W (12V DC)
Controls and Connectors:	PoE, Video, Data: RJ-45; Power: 12 VDC plug; Alarm In/Out: terminal block; Audio In/Out; Reset button
Enviromental	
Operating Conditions	Operating Temp: -22° to 140° F (-30° to 60° C) without Heater, -131° to 140° F (-55° to 60° C) with Heater Humidity: 10% to 95%, non-condensing
Storage Conditions	-20° to 70° C
Approvals:	UL, FCC, CE, IK10, IP66; RoHS; NDAA compliant; IS 13252(PART 1):2010/ IEC 60950-1 : 2005 & ER 01: 2024
Country of Origin:	Taiwan

Ordering Information

Model	V2012FE-B
Description	12.5 MP panoramic camera dome; fixed f/1.6" fisheye lens

Model	V2012FE-B	
Wedge Mount Bracket V2012FE-WM01 	Panoramic Dome Pendant Mounting Kit V2012FE-PC01 	Panoramic Dome Conduit Adaptor V2012FE-CA01 

Dimensional Drawing



Data Sheet Number: V326-219-00A-0525

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Specifications subject to change without notice.

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