V920D Series Network
Roughneck Camera Dome

H.264 **PoE** **Day/Night**

- 1080p, 720p and SD resolution models
- True day/night camera with a built-in varifocal autoiris lens; models available with motorized lens and IR illuminators
- H.264 high-profile, MPEG-4 and M-JPEG compression
- ONVIF interface provides interoperability with open platform solutions
- 0.01 lux low light capabilities @ 50 IRE
- Power-over-Ethernet (IEEE 802.3af), 24 VAC or 12 VDC
- Dual/triple streaming video
- Two-way audio
- SD card slot for on-camera storage
- Rugged construction for harsh indoor or outdoor environments, IP66 rated; heater provides all-weather protection (heater available with 24 VAC only)
- IK10 rated for impact protection
- Surface mounting on wall or ceiling; pendant and in-ceiling mounting options

Overview

Vicon's Roughneck® V920D Series of HD IP Camera Domes is designed for demanding security installations. The megapixel camera series 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, D1)] is offered with a motorized or manual varifocal autoiris lens. Models with IR illuminators are available.

The V920D Series provides dual/triple-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. MPEG-4 and M-JPEG compression is also provided.

The camera dome 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 12 VDC and 24 VAC. The V920D can be mounted on a wall, ceiling or standard 4 x 4 electrical box. With an adapter, it can also be pendant mounted on a wall mount or in-ceiling. The camera position is adjustable to any view required. 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 V920D features an autoiris 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. For protection against the elements, the camera dome is IP66 rated with a vandal-proof casing to withstand rain, dust, and vandalism; it is secured by tamperproof screws. The heater (24 VAC only) further enhances the dome's performance and reliability in extremely weather conditions. The camera dome provides 3-axis adjustment for any angle of view.

Model	V920D-N39-IP/ V920D-N39IR-IP/ V920D-N39M-IP/ V920D-N39MIR-IP	V921D-N39-IP/ V921D-N39IR-IP/ V921D-N39M-IP/ V921D-N39MIR-IP	V922D-N39-IP/ V922D-N39IR-IP/ V922D-N39M-IP/ V922D-N39MIR-IP
Image Sensor:	1/2.8-inch progressive scan RGB CMOS		
Max Resolution:	SD (D1)	720p	1080p
Image Settings:	Dynamic adjustable bit rate. Diigital image effects: horizontal and vertical flip. Configurable brightness, contrast, saturation hue, sharpness. White balance. Digital zoom. Gain control. Electronic shutter speed. Day/night mode. BLC (Backlight Compensation). Dynamic Noise Reduction (2D). Motion detection. Sense-Up. Privacy masking. Event notification.		
Electronic Shutter Speed:	1/4 ~ 1/20,000		
Digital Zoom:	1 ~ 10X (client software)		
Day/Night Performance:	True day/night (IR cut filter)		
Minimum Illumination:	Color: 0.08 fc (0.8 lux); B/W: 0.02 fc (0.2 lux); DSS: 0.001 f/c (0.01 lux) IR Color: 0.02 fc (0.2 lux) IR BW: 0.0 fc/lux, IR On @f/1.2, 50 IRE		
IR Distance (IR models only):	65 ft (20 m) (with 24 IR LEDs)		

Lenses

Focal Length:	3-9 mm (3X zoom)		
Max. Aperture:	f/1.2		
Iris:	Autoiris		
Zoom/Focus Adjust:	Screw lever adjustable (manual units) or motorized focus and zoom		
Horizontal Field of View:	3-9 mm: 93° - 31.7°		

Network Video Transmission

Network:	10Base-T, 100Base-TX, RJ-45		
Image Compression:	H.264; MPEG-4; M-JPEG		
Resolution:	704x480/576 (D1), 352x240/288 (CIF), 640x480 (VGA), 320x240 (QVGA)	1280x720 (720P), 704x480/576 (D1), 352x240/288 (CIF), 640x480 (VGA), 320x240 (QVGA)	1920x1080 (1080P), 1280x720 (720P), 704x480/576 (D1), 352x240/288 (CIF), 640x480 (VGA), 320x240 (QVGA)
Protocol:	IPv4/IPv6, TCP/IP, HTTP, HTTPS, RTSP, RTCP, RTP, SMTP, DHCP, NTP, FTP, DDNS, UDP, SNMP, uPnP, ARP, QoS, Zeroconf, Bonjour, Manual		
Frame Rate:	2.5 ~ 30 fps (2.1 ~ 25 fps, PAL). Refer to Frame Rate aned Resolution Performance sheet for details.		
Streams:	Dual or Triple streaming		
Users:	Live viewing for up to 10 clients		
Web Browser:	Internet Explorer®; Safari®, Firefox®, Google Chrome®, Opera®		
Security:	IP address filtering, HTTPS encrypted data transmission, SSL, password protection		

Mechanical and Electrical

Construction:	Die-cast aluminum base; polycarbonate plastic clear dome; tamperproof screws		
Camera Angle of Adjustment:	3-axis adjustment, pan, tilt and roll (azimuth): 355° pan; 70° tilt; 355° rotation		
Mounting:	Surface mount. Mounting accessories available for pendant/wall and in-ceiling.		
Dimensions:	6.06 in. (154 mm) (Diam) x 5.0 in. (127.4 mm) (H), 4.3 in. (109.97 mm) (Dome Diam)		
Weight:	2.5 lb (1.1 kg)		
Input Power:	12 VDC (no heater), 24 VAC, PoE (no heater)		
Current (No IR/IR):	12 VDC: 250/470 mA; 24 VAC: 300/520 mA; PoE: 70/130 mA. Heater (not available with 12 VDC or PoE): 24 VAC: 0.6 A. Power over Ethernet IEEE 802.3af Class 0.		
Power Consumption (No IR/IR):	12 VDC: 3/4 W; 24 VAC: 3.3/6.5 W; PoE: 3.5/6.4 W. Heater (24 VAC only): 20 W.		
Storage:	Slot for Micro SD card on camera (card not supplied)		

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Controls and Connectors

External Controls:	Focus, Zoom: control levers on non-motorized lens versions
Connectors:	Power: 12 VDC/24 VAC: screw terminal; PoE/Network: RJ-45 CAT 5. Alarm In/Out: screw terminal. Audio In and Out: jack (Audio Out requires external amplifier). Local Storage: Micro SD card slot. Composite output provided for installation (NTSC/PAL selectable).

Environmental

Operating Conditions:	Temp: -40 to 122° F (-40 to 50° C) with heater; -4 to 122° F (-20 to 50° C) without heater (PoE) Humidity: up to 90%, non-condensing Heater: 41°F (5°C) (ON)/59°F (15°C) (OFF); tolerance: ±5°C
Approvals:	UL, FCC Class A, CE, IP66, IK10
Warranty:	3 years

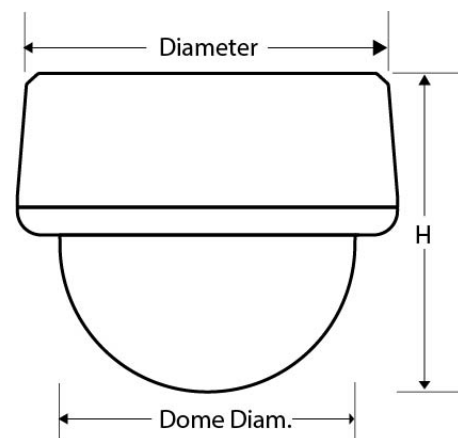| Resolution	Lens	Model Number
SD resolution (0.3 MP)	3 - 9 mm mm autoiris varifocal lens	V920D-N39-IP
	3 - 9 mm mm autoiris varifocal lens; IR illuminators	V920D-N39IR-IP
	3 - 9 mm mm motorized zoom and focus	V920D-N39M-IP
	3 - 9 mm mm motorized zoom and focus; IR illuminators	V920D-N39MIR-IP
720p resolution (1 MP)	3 - 9 mm autoiris varifocal lens	V921D-N39-IP
	3 - 9 mm autoiris varifocal lens; IR illuminators	V921D-N39IR-IP
	3 - 9 mm motorized zoom and focus	V921D-N39M-IP
	3 - 9 mm motorized zoom and focus; IR illuminators	V921D-N39MIR-IP
1080p resolution (2 MP)	3- 9 mm autoiris varifocal lens	V922D-N39-IP
	3 - 9 mm autoiris varifocal lens; IR illuminators	V922D-N39IR-IP
	3 - 9 mm motorized zoom and focus	V922D-N39M-IP
	3 - 9 mm motorized zoom and focus; IR illuminators	V922D-N39MIR-IP

Model Descriptions

Model Number	Description
V920-PH	Pendant housing used to convert V920D to pendant mounting; it can then be used with a variety of wall mounts
V920D-ICD	In-ceiling mounting kit for dropped ceiling
V920D-ICH	In-ceiling mounting kit for hard ceiling
Surge Protectors	Refer to datasheet

Mounting Accessories

Model Number	Description
V920D-OSD	OSD controller; for making changes from the OSD on the V920D series camera domes
V920D-AUDIO	Audio jack cable assembly; used for audio in (mic)/audio out (speaker) on the V920D camera series

Cable Adapters

Dimensional Drawing (in.)