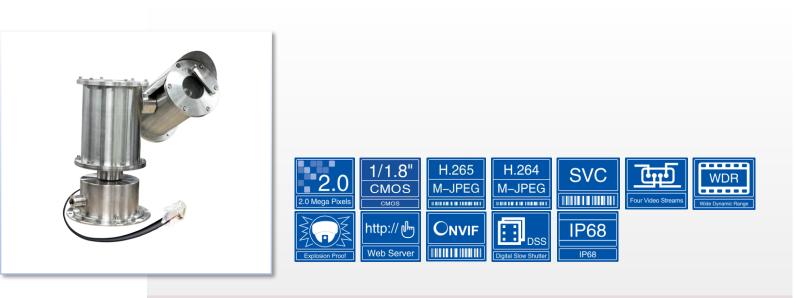
# V1631MN-F SERIES

#### HD 2MP EXPLOSION-PROOF IP PTZ CAMERA SYSTEM





## **FEATURES**

- The chip is integrated with TPU module, and supports video structuration function based on deep learning algorithm.
- 316 / 316L stainless steel construction, IP68 environmental rating
- Strong corrosion-resistant capabilities
- HD network video output: 1920x1080@60fps
- Built-in 30X / 33X HD integrated camera module
- 1/1.2.8" or 1.9" Large area progressive scanning CMOS sensor
- Ultra-low illumination: 0.0005 lux
- Supports frame integration WDR, with dynamic range up to 120dB
- H.265/H.264/M-JPEG/SVC video encoding, quad video streams
- Features rich smart functions such as video anomaly detection, behaviour-analysis detection, sound detection, statistics detection, intelligent grouping detection
- Support multi-target detection, tracking and snapshot; support optimum selection and duplicate removal for captured structurized images; small face images and panoramic images are optional to be uploaded to platforms for secondary analysis and retrieval.
- Support structurized object attributes: able to detect face, pedestrian, motor vehicle and non-motor vehicle. Supports vehicle-pedestrian mode and vehicle mode
- Up to 8 ROI (Region of Interest) areas.
- Onvif Profile S/G/T and RTSP compliant

- Bi-directional audio, G.711-A/G.711-U/AAC /G.726 standard optional
- 2 alarm inputs, 1 on-off output
- Support remote PTZ control
- Support area zoom, image PTZ and E-zoom
- Support preset, pattern, auto-pan, tour and home return, etc.
- IP68 rating
- Built-in with wiper
- Built-in heater and cooling fan
- 360° Pan/Tilt rotation at 0.05°~40°/s

### DESCRIPTION

V1631MN-F series HD 2MP explosion-proof integrated IP PTZ camera is fully-developed and specially designed for use in flammable and explosive hazardous areas. The system uses 316/316L stainless steel to ensure its good explosion-proof performance in hazardous areas. It has an absolute operating temperature range of -40°F~140°F (-40°C~60°C). This camera is properly sealed to prevent the intake of flammable dust and ensure strong corrosion-resistant capabilities.

The camera has a built-in HD integrated camera module, utilizes large size progressive scanning CMOS sensor and has an internal 30X / 33X optical zoom lens. It provides high quality video with the resolution up to 1920x1080@60fps, adopts H.265/H.264/M-JPEG/SVC compression formats, outputs four video streams and boasts of excellent resolution and color reproduction ability to ensure richer and more accurate details to be acquired and also guarantee the accuracy of intelligent analysis in a more effective way. Based on deep-learning algorithm, V1631MN-F series HD network explosion proof camera is endowed with vivid smart functions and video structuring functions such as face detection, pedestrian detection, motor vehicle detection and non-motor vehicle detection. It's able to output target attributes and images to the backend platform for big data analysis, which effectively reduces loads and costs of smart analysis and handling that the control platform bears.

The user-friendly GUI interface is designed for easy PTZ control and convenient camera parameter settings. Thus, it makes easier to set the PTZ and perform operations with a mouse than traditional keyboard. In addition, area zoom and image PTZ are also offered. The intelligent motion detection and multiple alarm responses make it even safer to use.

All products shall meet the provisions of standard Ex db IIC T6 Gb (-40 °C  $\leq$  Ta  $\leq$  +60 °C)/ Ex tb IIIC T80°C Db (-40 °C  $\leq$  Ta  $\leq$  +60 °C) IP68 (For IPX8: 1.5 meter & 2 hours)

V1631MN-F series cameras also provide functions such as preset, pattern, auto pan, auto scan and normal tour, etc. V1631MN-F series allows 360° continuous pan/tilt rotation at the speed of 0.05~40°/s. An optoelectronic device is embedded to detect the position of camera housing. It will send signals to the processor when the camera housing is turned upside down. Then, the processor sends an order to flip the image for normal view.

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### **TECHNICAL SPECIFICATIONS**

#### Lens (Visible)

Lens (Visible)		Max. Coding	
Image Sensor	1/1.2.8" or 1.9" Progressive scan CMOS	Capacity (Thermal	-
Optical Zoom	30X / 33X	Lens)	
Digital Zoom	-		VBR/CBR
Focal Length	f=6~180mm / f=4.6~152mm		Major stream: 128kbps~10240kbps
Iris	F1.6~F4.8	Data Rate	Minor stream: 128kbps~4096kbps
Focus	Auto, Manual, M/A; supports to set focal length		Third stream: 128kbps~512kbps
FOV(H/V/D)	H:59.8°-3.0°V:44.4°-2.24°; D:70°-3.76°- 30X		Fourth stream: 128kbps~512kbps
. (	H: 55°~2.3°; V: 41.6°~1.7°; D:67.9°~2.8° - 33X	Video Compression	H.265/H.264/M-JPEG/SVC independent coding
Lens (Thermal)		Multi-Streaming	Four stream independent output
Imager Type	-	Video Rotation	Video can be rotated by 0°, 90°, 180°, 270°
Lens Type	-	Audio	
Spectral Band	-	Audio	
Pixel Size	-	Compression	G.711-A/ G.711-U/ G.726/ AAC
NETD Focal Length	-	Sample Rate	8KHz (for G.711-A/G.711-U/G.726), 16KHz, 32KHz, 44.1KHz and 48KHz (for AAC)
FOV	-	Audio Interface	1 input, Linear level,1 output, Linear level
Video		Two-way Audio	Available
Camera	2140	Mic & Speaker	-
Resolution (Visible Lens)	2MP	Image	
(Visible Lens) Max. Coding Capacity (Visible Lens)	Major stream: H.264/H.265 -60fps@1920x1080 Minor stream: H.264/H.265 -30fps@1920×1080 Third stream: H.264/H.265 -30fps@384×256 Fourth stream: H.264/H.265 -30fps@384×256 Major stream: H.264/H.265 -60fps@1920×1080 Minor stream: H.264/H.265 -30fps@1920×1080 Third stream: MJPGE -30fps@1920×1080 Fourth stream: H.264/H.265 -30fps@384×256	Shutter	Auto/Manual (1/1s ~ 1/32000s)
		WDR	Up to 120dB
		Exposure	Auto/Manual/Shutter
		Sensitivity	Color mode: 0.005lux @F1.6 (AGC ON) B/W mode: 0.0005lux @F1.6 (AGC ON)
		White Balance	Auto/Manual/Outdoor
		Video Adjustment	Brightness, contrast, saturation, hue, sharpness
		Noise Reduction	3D

### **TECHNICAL SPECIFICATIONS**

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<ul> <li>Video Anomaly Detection - Camera tampering, camera shifting, defocus detection, high brightness detection, low brightness detection, video loss detection, color cast detection, and motion detection</li> <li>Behaviour Analysis Detection - Wire crossing detection, intrusion detection, object abandoned detection, object lost detection, loitering detection, crowd detection, fast moving detection and target fall detection</li> <li>Sound Detection - Abnormal sound detection and fight detection</li> <li>Statistics Detection - Counting, density detection, queue length detection and dwelling detection Intelligent Grouping Detection - Structurized face detection grouping, behaviour analysis grouping, and people and vehicle coexistence detection Capture - Support target detail capture Optimum Selection - Support optimum selection and duplicate removal for captured images to deliver the best-quality images</li> </ul>	,	
video Structurization - Support structurized object attributes: - Face attributes: gender,		camera shifting, defocus detection, high brightness detection, low brightness detection, video loss detection, color cast detection, and motion detection Behaviour Analysis Detection - Wire crossing detection, intrusion detection, object abandoned detection, object lost detection, loitering detection, crowd detection, fast moving detection and target fall detection Sound Detection - Abnormal sound detection and fight detection Statistics Detection - Counting, density detection, queue length detection and dwelling detection Intelligent Grouping Detection - Structurized face detection grouping, behaviour analysis grouping, and people and vehicle coexistence detection grouping, PTZ tracking grouping Multi-object detection - Support face, pedestrian, motor vehicle, and non-motor vehicle detection Capture - Support target detail capture Optimum Selection - Support optimum selection and duplicate removal for captured images to deliver the best-quality images Video Structurization - Support structurized

expression (angry, disgusted, fearful, happy, sad, surprised or neutral) - Pedestrians attributes: gender, age (youth, middle-aged, elderly or teenager), top style (long sleeve, short sleeve, robe or trench coat, stripe, logo, plaids, matching or splicing), top color (white, black, red, yellow, grey, blue, green, dark grey or purple), bottom style (long pants, shorts, skirt, stripes or patterns), bottom color (white, black, red, yellow, grey, blue, green, dark grey or purple), glasses, hat, backpack, shoulder bag, holding kids, objects in hand, protective clothing, safety helmet, direction (front, back, side) - Motor vehicle attributes: Types (car, tricycle, truck, pickup trucks, van, bus), vehicle brands, vehicle body color (black, blue, brown, Video Analytics green, grey, white, red, yellow, pink, purple, dark grey, silver, orange, green and other), license plate number, license plate color (yellow, blue, black, white and green), license plate types (small car plate, large car plate, new energy vehicle license plate, large truck or trailer license plate), direction(front, rear, left, right, left front, right front, left rear and right rear) - Nonmotor vehicle attributes: type (bicycle, motorcycle), equipped with umbrella, helmet, overload, direction (front, rear, left, right, left front, right front, left rear and right rear). PTZ tracking - Support human tracking; Supports capturing human body and human face during the tracking process Support a single card **Built-in Storage** Up to 512GB Local PC Recording Available 2 alarm inputs, 1 on/off output I/O input, motion detection, smart alarm, network disconnection, SD card removal, heartbeat loss I/O output, email, FTP upload, audio, SD card Alarm Association recording and SD card snapshot System Functions **Operating System** Win7 and higher versions IE8 and higher versions Access Protocol ONVIF Profile S/G/T, CGI 2.7 **Multiple Access** Up to 20-ch simultaneous access Available Remote Upgrade Available Available Available

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Storage Storage Slots

Δlarm Alarm Ports

NAS Storage

Alarm Input

Browser

Web Server

Password

Protection RS485 Port

of Users

Network Network Interface

Wiper

Analog Video Output

Maximum Number

Network Protocols

Manual Speed

Available

Available

64, with 3 types of users available:

administrator, normal user, and operator

1\*RJ45 10/100M self-adaptive Ethernet port IPv4/IPv6, TCP, UDP, IGMP, ICMP, IGMPv3/3, DHCP, SNMP (V1, V2, V3), FTP, SMTP, NTP,

RTC, RTP, RTSP, RTCP, HTTP, HTTPS, SSL 802.1x, QoS, PPPoE, DNS, DNSv6, DDNS, ARP, UPnP, IP Filter, TLS, DES, Multicast, SIP

Pan: 0.05°/s ~ 40°/s; Tilt: 0.05°/s ~ 40°/s

IP Address	Support blacklist and whitelist filtering	Preset Speed	0.05°/s ~ 30°/s
Filtering	Support blacklist and whitelist filtering	Rotation Angle	Pan: 360°; Tilt: 360°
Network Delay	<300ms	Preset Accuracy	±0.1°
Environmental		Electric Motor	Stepping motor
Anti-Static	Air discharge: 8KV, contact protection: 6KV (for all ports)	Electrical	
, and otatio		Power Supply	100~240VAC 500mA
Surge Protection	Difference mode: ±1KV, common mode: ±2KV	Power Consumption	50W
(for network port and power port) Physical			
Operating	-40°F~140°F (-40°C~+60°C)	Product Dimension	372.4mm×353.9mm×400.5mm
Temperature		(L×W×H) or (H x D)	(length × width × height)
Storage Temperature	-40°F~158°F (-40°C~+70°C)	Package Dimension (L x W x H)	740mm×740mm×470mm
Operating Humidity	≤ 95% RH	Unit Weight	84 lbs. (38±5%kg)
		Shipping Weight	121 lbs. (55±5%kg)
Environmental	IP68 (1.5m/2h)	Certifications	
Rating		Product	
Impact Resistance	IK10	Certifications	IECEx; CCOE/PESO; CE; FCC; IK10; IP68; RoHS
Mechanical			

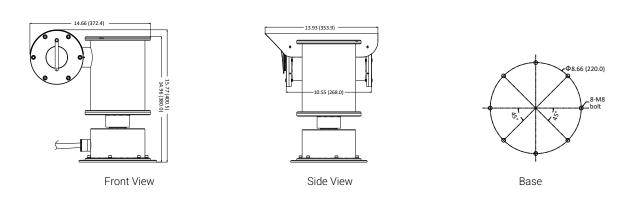
#### **ORDERING INFORMATION**

V1631MN-30F29A-2	HD Megapixel Explosion-proof IP PTZ Camera System, 2MP, 30X, 1/1.9" CMOS, Day/night, H.265/H.264/M- JPEG/SVC, 316 Stainless Steel, With audio alarm, 100~240VAC
V1631MN-33F29A-2	HD Megapixel Explosion-proof IP PTZ Camera System, 2MP, 33X, 1/1.2.8" CMOS, Day/night, H.265/H.264/M- JPEG/SVC, 316 Stainless Steel, With audio alarm, 100~240VAC
V1631MN-30F29B-3	HD Megapixel Explosion-proof IP PTZ Camera System, 2MP, 30X, 1/1.9" CMOS, Day/night, H.265/H.264/M- JPEG/SVC, 316L Stainless Steel, with audio alarm, 100~240VAC
V1631MN-33F29B-3	HD Megapixel Explosion-proof IP PTZ Camera System, 2MP, 33X, 1/1.2.8" CMOS, Day/night, H.265/H.264/M- JPEG/SVC, 316L Stainless Steel, with audio alarm, 100~240VAC
Accessories	
Mount	
V1664-W	Wall Mount, 316 Stainless Steel
V1664-C	Corner Mount, 316 Stainless Steel
V1664-S	Pole Mount, 316 Stainless Steel

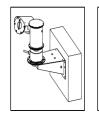
\*Note: - 1) The pigtail cable is about 1.16m (from the outlet end to the end of the pigtail cable). Customers have to prepare the explosion-proof cableprotecting pipe. Please make sure that the length of the pipe satisfies the location needs. The pigtail cable includes power input, RS485, BNC, network output, GND, 2-ch alarm input, 1-ch alarm output, audio input and audio output.

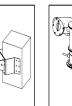
2) "Confirmation of SD Card installation has to be notified with the Camera Purchase Order. Such confirmation if received on Order Readiness will attract additional cost. Please contact Infinova to know more".

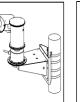
#### DIMENSIONS



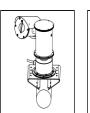
#### MOUNTING

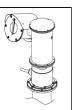












Surface Mounting

Wall Mounting

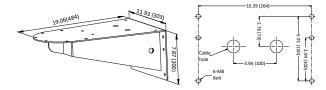
Corner Mounting

Pole Side Mounting Pole Pendant Mounting

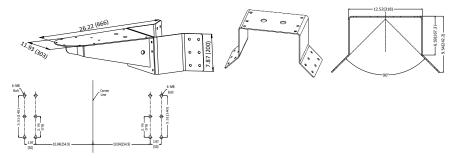
Pole Stand Mounting

Pole Top Mounting

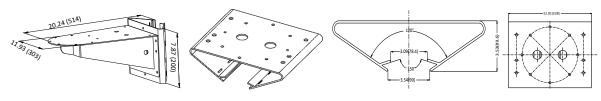
#### V1664-W Mount:



Corner Mount Adapters for V1664-C:



#### Pole Side Mount Adapters for V1664-S:



(Unit: inch, in the parentheses is mm)