



CZ109 2MP IR Vari-focal Lens Explosion Proof Corrosion Proof Camera



IP66 IP68 IP69

Application Scenarios

The ATEX & IECEx certified CZ109 are ZUOAN designed classic explosion-proof corrosion-proof camera, which can load various camera. This product has obtained group II explosion-proof level certification and temperature level certification, applicable for Zone 1 and Zone 2 hazardous areas that explosive mixture of group IIA, IIB, IIC, T1~T6 gases, vapors and air may exists, Zone 21 and Zone 22 hazardous areas that explosive dust may exist. For example: refine, oil extraction, gas extraction, chemical, petrol station and other environment.

Main Features:

- ATEX, IECEx certified
- Application: Gas zone 1 and zone 2; Dust zone 21 and zone 22
- Ex db IIC T6 Gb/ Ex tb IIIC T80°C Db
- Stainless steel 304/316L
- Optional electropolished or corrosion resistant paint finish
- Enclosure Protection: IP66 IP68 (2m 2h) IP69
- Motorized vari-focal lens 2.7 ~ 13.5mm
- 2MP (1920*1080) @(1-25/30 fps)
- 1/2.8" progressive scan, CMOS
- 12 VDC/PoE power supply, easy for installation
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, and the max. illumination distance is 60 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking
- Intelligent monitoring: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, audio detection

Specification:

Camera	
Image Sensor	1/2.8" CMOS
Max. Resolution	1920 (H) × 1080 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.002 lux@F1.5 (Color, 30 IRE) 0.0002 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	Up to 60 m (196.85 ft) (IR LED)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	4 (IR LED)
Lens	

Lens Type		Motorized vari-focal			
Lens Mount		ø14			
Focal Length		2.7 mm–13.5 mm			
Max. Aperture		F1.5			
Field of View		H: 108°–30°; V: 56°–17°; D: 131°–35°			
Iris Control		Fixed			
Close Focus Distance		0.8 m (2.62 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	44.1 m (144.69 ft)	17.7 m (58.07 ft)	8.8 m (28.87 ft)	4.4 m (14.44 ft)
	T	144.8 m (475.07 ft)	57.9 m (189.96 ft)	29.0 m (96.14 ft)	14.5 m (47.57 ft)



Intelligence

IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos

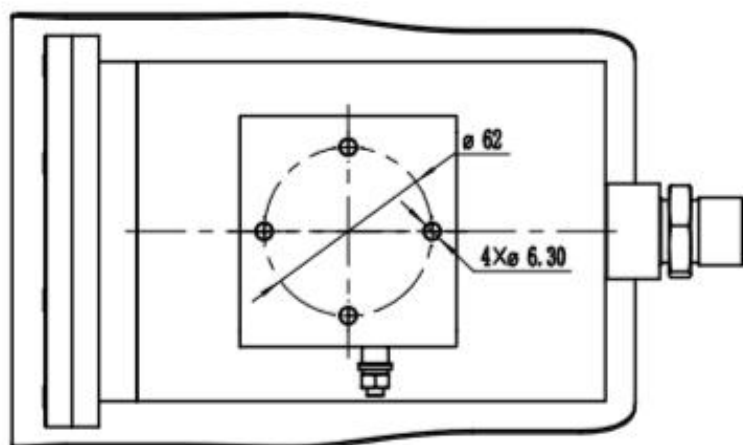
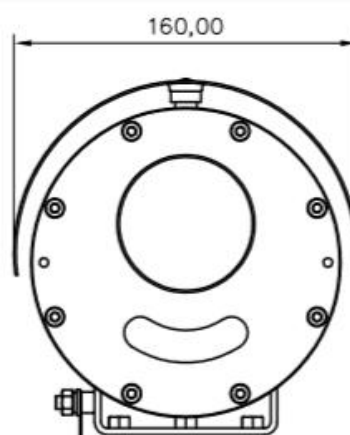
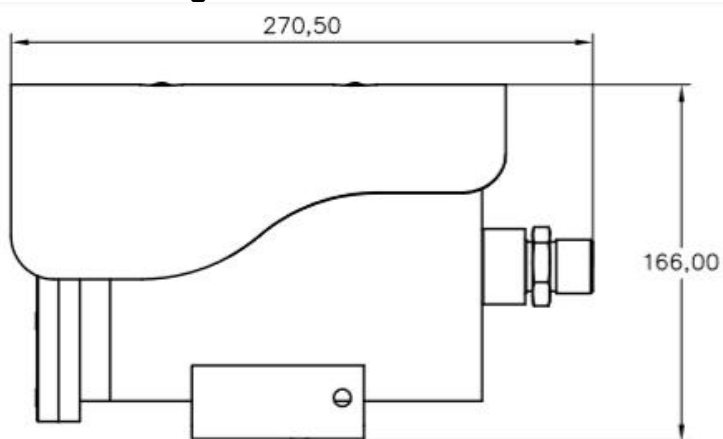
Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Main stream: 1920 × 1080@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.
Stream Capability	2 streams
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–6144 kbps H.265: 12 kbps–6144 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes

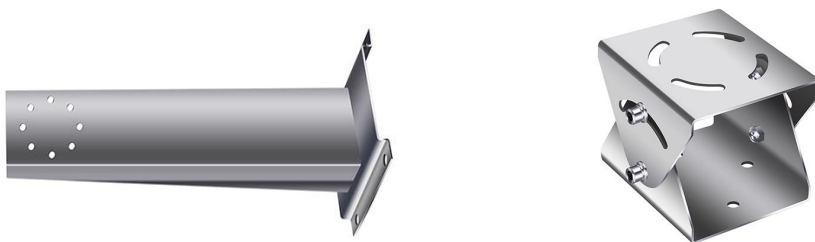
WDR	120 dB
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Manual;Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; G.726; PCM
Alarm	
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; defocus detection; external alarm (Only- ZAS supports); SMD; security exception
Network	
Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P
Interoperability	ONVIF (Profile S/Profile T); CGI
User/Host	6 (Total bandwidth: 36 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 GB)
Browser	IE Chrome Firefox
Management Software	SmartPSS Lite; DSS; DMSS
Mobile Client	iOS; Android
Cyber Security	Video encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade
Certification	

Certifications	ATEX, IECEx certified
Explosion proof certification	DNV 22 ATEX 51565X IECEx DNV 22.0097X
ATEX Explosion proof marking	 II 2 G Ex db II C T6 Gb  II 2 D Ex tb IIIC T80°C Db
IECEx Explosion proof marking	Ex db IIC T6 Gb/Ex tb IIIC T80°C Db
Port (Optional)	
Audio Input	1 channel (RCA port) (Only- ZAS supports)
Audio Output	1 channel (RCA port) (Only- ZAS supports)
Alarm Input	1 channel in: 5mA 3V–5V DC (Only- ZAS supports)
Alarm Output	1 channel out: 300mA 12V DC (Only- ZAS supports)
Power	
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	-ZS: Basic: 2W (12 VDC); 2.6 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 8.5 W (12 VDC); 9.8 W (PoE) -ZAS: Basic: 2W (12 VDC); 2.6 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 8.6 W (12 VDC); 9.9 W (PoE)
Environment	
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Operating Humidity	≤95%
Storage Temperature	-40 °C to +60 °C (-40°F to +140°F)
Structure	
Casing Material	Stainless steel 304/316L
Product Dimensions (L × W × H)	270.50mm × 166.00mm × 160.00mm (10.6" × 6.5" × 6.3")
Net Weight	5.6 kg (12.34 lb)
Gross Weight	6.5 kg (14.33 lb)
Pigtail Cable	2meters standard combined cable (power+UTP)
Ingress Protection	IP66, IP68 (2m 2h), IP69
Bracket	ZAZ100B Wall bracket with adaptor

Drawings



ZAZ100B Wall bracket with adaptor



General

Material	Stainless steel 304 or 316L
Max Loading	20kg
Gross Weight	2.5kg

Dimension

