



Network

Bullet

TNO-C9083ER

8 MP Compact IR Explosion-proof AI Camera



Key Features

- 8 MP Image Resolution
- 3.2~10.2mm Focal Length
- 30m IR Length
- IP66, IK10 Rated
- Compact size 5.78Kg(12.74 lbs)
- AI Object Detection and Classification
- 1/2" cable gland type for easy installation
- IECEx, ATEX, KCs, JPEX
- LAN cable made from flame-retardant LSZH(Low Smoke Zero Halogen) material

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Specifications

Video		
Imaging Device	Size	1/2.8"
	Type	CMOS
Resolution		3840x2160, 3328x1872, 3072x1728, 2688x1520, 2592x1944, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@8MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.06
	BW(1/30sec, 30IRE)	0.006

Lens		
Focal Length (mm)		3.2~10.2
Zoom Ratio	Optical	3.2x
Max Aperture Ratio (F number)	Wide	1.6
	Tele	3.1
Angular Field of View	Horizontal	104°~31°
	Vertical	55°~17°
	Diagonal	124°~35°
Min. Object Distance		1.2m(3.93ft)
Focus Control		Simple focus
Lens Type		DC auto iris(IR corrected)

Operational		
Day & Night		Auto(ICR)
Backlight Compensation		BLC, WDR, SSDR
Wide Dynamic Range (dB)		120
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones

Operational

Privacy Masking	Quantity	32ea
	Shape	4point Quadrangle zones
	Color / Option	Gray, Green, Red, Blue, Black, White
Gain Control		Low, Middle, High
White Balance		ATW, AWC, Manual, Indoor, Outdoor
LDC		Support
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker
	Speed Range	1/5~1/25,000sec
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Triggers		Analytics, Network disconnect, Alarm input, MQTT subscription
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP, Notification: e-mail, Handover: PTZ preset, send message by HTTP/HTTPS/TCP, MQTT: publication
Light Type		IR LED
Light Viewable Length	IR	30m(98.42ft)
IR Wavelength		850nm

Analytics

Classified Object Type		Person, Vehicle
Attributes	Vehicle	Type(car, bus, truck, motorcycle, bicycle)
Thumbnail		BestShot
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection
	Normal	Defocus detection, Tampering, Virtual area(Appear/Disappear)
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting

Network

Ethernet		RJ-45(10/100BASE-T)
Video Compression		H.265/H.264: Main/High, MJPEG
Smart Codec		Manual, WiseStreamIII
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT

Network

Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection		Support

Security

OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware	
User authentication	Digest authentication, Prevent brute-force attack	
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)	
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP	
Access Control	IP-based access control	
Data Protect	Encryption credentials, Encrypt compress for live recording file export	
Audit	Access / System / Event Log management	
Device ID	Device certificate(Hanwha Vision Root CA)	

General

Memory	RAM	2GB
	Flash	1GB

Environmental & Electrical

Operating Condition	Temperature	-30°C~+55°C(-22°F~+131°F)
	Humidity	0~95% RH(non-condensing)
	Others	Start up should be done at above -30°C
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~95% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3)
Power Consumption	PoE	Max. 12W, typical 5.3W

Mechanical

Color	Silver	
Material	Stainless(STS316L)	
Product Dimensions	ø120 x 215mm(ø4.72x8.46")	
Product Weight	5780g(12.74lb)	

Certifications & Standards

EMC	CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, VCCI CISPR 32 Class A	
Environment	IEC 60529 IP66, IEC 62262 IK10, ATEX II 2 G Ex db IIC T6 Gb, II 2 D Ex tb IIIC T80°C Db, IECEx Ex db IIC T6 Gb, Ex tb IIIC T80°C Db, JPEX, KCs, CCC	

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	60.0m(196.86ft)
	Tele	276.9m(908.57ft)
Observe (63PPM/ 19PPF)	Wide	24.2m(78.74ft)
	Tele	111.7m(363.43ft)
Recognize (125PPM/ 38PPF)	Wide	12.0m(39.37ft)
	Tele	55.4m(181.71ft)
Identify (250PPM/ 76PPF)	Wide	6.0m(19.69ft)
	Tele	27.7m(90.86ft)

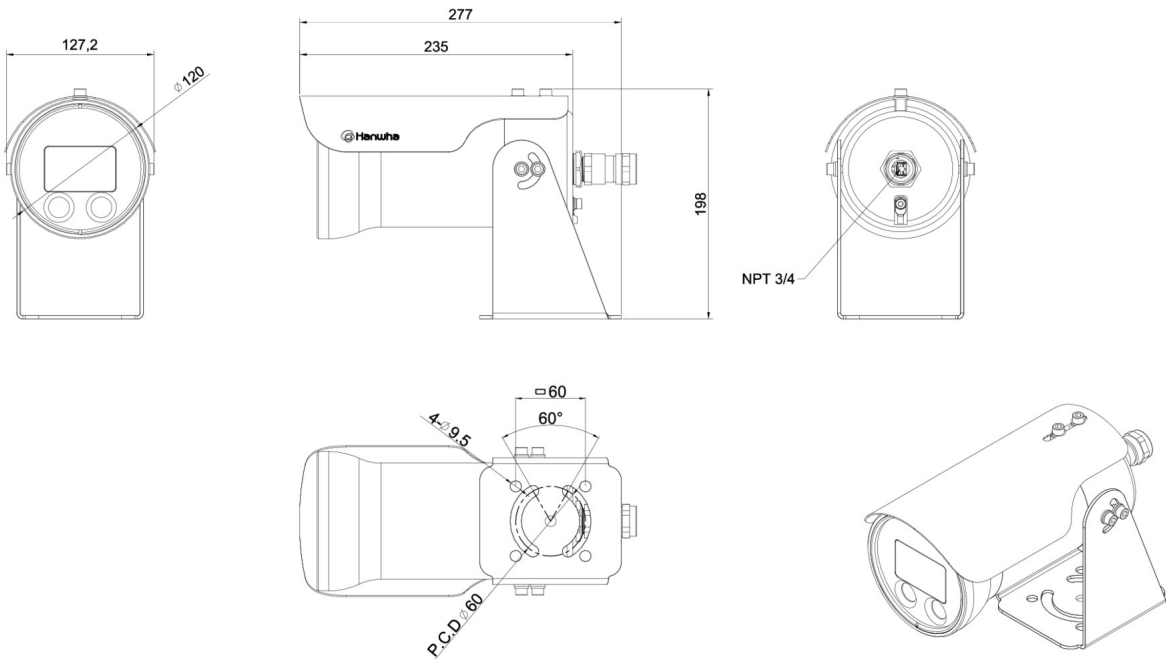
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CAD

Unit: mm [inch]



1	TNO-C*083ER	'26.09.16'
No.	MODEL NAME	DATE
Unit:mm[inch]	SCALE:1/1	Hanwha Vision

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Compatible Devices



SBE-100WM



SBE-100PM