



Network

# TNO-C8083E

5MP Compact Explosion-proof AI Camera



## Key Features

- Compact and Light-weight (4.78Kg) Explosion proof bullet
- Up to 30fps@5MP resolution with 3.2x motorized vari-focal lens
- AI based Object classification and reduced false alarm
- 1/2" cable gland type for easy installation
- IECEX, ATEX, KCs, JPEX Explosion-proof certificated
- IP66/IK10 with SUS316L stainless

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## Specifications

### Video

Imaging Device	1/2.8" 5MP CMOS
Resolution	2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps(@5MP Max. 5fps)
Min. Illumination	Color: 0.07Lux (F1.6, 1/30sec) B/W: 0.007Lux (F1.6, 1/30sec, 30IRE)

### Lens

Focal Length (Zoom Ratio)	3.2~10.2mm(3.2x) motorized varifocal
Max. Aperture Ratio	F1.6(Wide)~F3.1(Tele)
Angular Field of View	H: 95°(Wide)~29°(Tele) V: 69°(Wide)~21°(Tele) D: 126°(Wide)~36°(Tele)
Min. Object Distance	1.2m (3.93ft)
Focus Control	Simple focus
Lens Type	DC auto iris(IR corrected)

### Operational

Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)
Motion Detection	8ea, 8point Polygonal zones
Privacy Masking	32ea, 4point quadrangle zones
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
LDC	Support
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)
Video Rotation	Flip, Mirror, Hallway view(90-/270-)
Analytics	Classified object type: Person/Vehicle Attributes: Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine - Motion detection*, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events - Motion detection, Defocus detection, Tampering, Virtual area(Appear/Disappear)  * Some of the video analytics only works with people and vehicle detection
Business Intelligence	Based on AI engine: People/Vehicle counting, Queue management, Heatmap
Alarm Triggers	Analytics, Network disconnect

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](http://HanwhaVision.com).

Hanwha Vision is formerly known as Hanwha Techwin.

Alarm Events	File upload via FTP and e-mail Notification via e-mail Handover(PTZ preset, Send message by HTTP/HTTPS/TCP)
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### Network

Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Smart Codec	Manual(5ea area), WiseStreamIII(Based on AI engine)
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5profiles)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP (TCP, UDP Unicast)
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API)

### Security

OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	Access control based on IP address
Data Protect	Authentication information encryption, ZIP compression encryption
Audit	User Access/System/Event log management
Device ID	Device Certificate(Hanwha Private Root CA)

### General

Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Memory	2GB RAM, 1GB Flash

### Environmental & Electrical

Operating Temperature / Humidity	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C
Storage Temperature / Humidity	-50°C~+60°C(-58°F ~ +140°F) / 0~95% RH
Certification	CE, KC, IP66, 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
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max 9.50W, typical 5.30W

### Mechanical

Color / Material	Silver / stainless (SUS316L)
Product Dimensions / Weight	ø110.5 x 316.2mm(ø4.35x12.44"), 4770g(10.51 lb)
Hanging Mount (Dome)	SBE-100WM, SBE-100PM
Wall Mount	SBE-100WM
Pole Mount	SBE-100PM

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**Certifications & Standards**

EMC	CE/UKCA - EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3 VCCI CISPR 32 Class A KS C 9832:2023, KS C 9835:2019
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Environment	EC/EN 63000 IEC/EN 60529 IP66, IEC/EN 62262 IK10
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**DORI (EN62676-4 standard)**

Detect (25PPM/ 8PPF)	Wide: 42.7m(140.20ft) / Tele: 186.9m(613.28ft)
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Observe (63PPM/ 19PPF)	Wide: 17.2m(56.08ft) / Tele: 75.4m(245.31ft)
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Recognize (125PPM/ 38PPF)	Wide: 8.5m(28.04ft) / Tele: 37.4m(122.66ft)
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Identify (250PPM/ 76PPF)	Wide: 4.3m(14.02ft) / Tele: 18.7m(61.33ft)
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