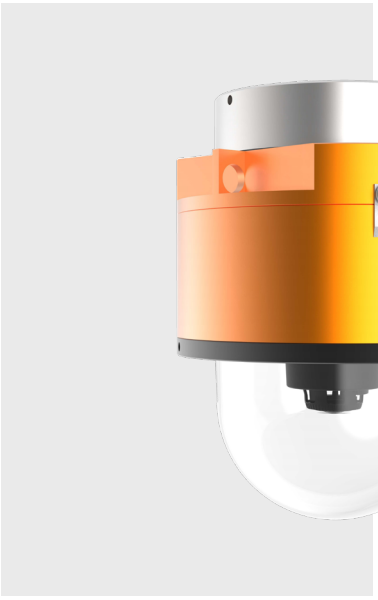
Hanwha Vision



Explosion Proof | Fisheye

TNM-XNF9013EPT3-Z

Explosion Proof 12MP Fisheye Camera

Housing MADE IN U.S.A.

Explosion protected X series Fisheye cameras are a perfect solution for situational awareness for large areas where you need complete coverage with no blind spots. Easily dewarp the image on-the-fly while recording the full fisheye image. No need to worry about a PTZ positioned in the wrong area.

The TNM-XNF9013EPT3-Z is a cFMus Class I/II/III, Division 1 (Groups: B, C, D, E, F, G) and IECEx & ATEX Zone 1/21 (IIB+H2/IIIC) camera system. The housing is proudly designed and manufactured in the USA to exceed the highest global industry standards for safe operation in hazardous or potentially combustible environments and in the most extreme weather conditions.

The TNM-XNF9013EPT3-Z utilizes an industry first patented multi-chambered enclosure design, with an explosion proof bulkhead used between chambers with each bulkhead including access ports to allow electrical/network connections to be safely passed through. The TNM-P9022EPT3-Z is designed with corrosion resistant marine-grade aluminum with an IP66/67 Type 4X rating for protection against water/dust particles and is certified to withstand temperatures ranging from -20°C to +55°C. The enclosure also features a patented GORE-TEX® Breather Drain membrane system incorporated into the housing design: air within the enclosure is allowed to equalize with the surrounding atmosphere, preventing interior condensation and negating any potential damage to the onboard electronics.

The TNM-XNF9013EPT3-Z utilizes 802.3at Power over Ethernet (PoE+) for power and network connectivity, providing a flexible low-voltage install solution.

Key Features

- AI Technology
- Classified Object Type: Person/Face/Vehicle/License Plate
- Support Detection Shot
- Object Detection: Virtual Line (Crossing Detection), Virtual Area (Loitering/Intrusion/Enter/Exit)
- Stereographic Type Fisheye Lens
- Improved Image Quality
- Extreme WDR (2MP@60fps) By Scene Analysis and Local contrast Enhancement
- WiseNR-, Auto Prefer Shutter Control Based on AI
- Resolution/Frame Rate
- Original View - Max 30fps/25fps@3008x3008 (60Hz/50Hz)
- Double Panorama - Max 30fps/25fps@3584x896 (60Hz/50Hz)
- Single Panorama - Max 30fps/25fps@3584x896 (60Hz/50Hz)
- WiseStream - Based on AI
- Next Level Cybersecurity
- Device Certificate (Root CA, Pre-Installed)
- TPM 2.0 (FIPS 140-2 Certified), Secure OS/Boot/Storage, Verified FW Forgery
- Micro SD/SDHC/SDXC 2 Slots: Max 1TB (512GB x 2)
- Reinforced Durability
- IP66, NEMA 4X, IK10, Metal Shielded RJ-45
- Hard-Coated Dome Bubble

Accessories (Optional)

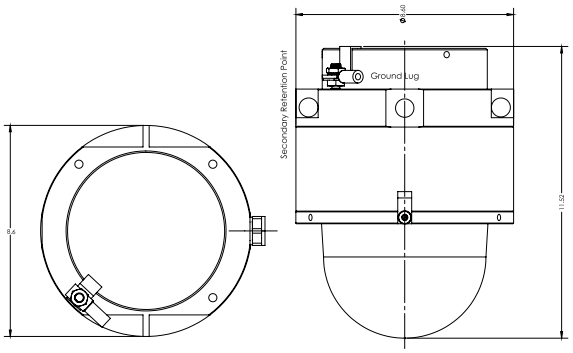
HT-SD-WM
Wall Mount Bracket

HT-SPMA-SD
Pole Mount Bracket

HT-SD-FP
Protection Cable (Supplied with Camera unit)

HT-SD-CM
Corner Mount Bracket

Dimensions



Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

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TNM-XNF9013EPT3-Z

Explosion Proof 12MP Fisheye Camera

Specifications

VIDEO	
Imaging Device	1/2.3" 12MP CMOS
Resolution	**Original View (1:1)**: 3008x3008~480x480 , **Double Panorama (2:1)**: 3584x1792~640x320 **Single Panorama (1:1)**: 3584x896~640x160, **Quad View**: 3584x2688~640x640, **Q1/Q2/Q3/Q4 (4:3)**: 1792x1344~640x480
Max. Frame Rate	**H.265/H.264:** Original View - Max 30fps/25fps@3008x3008 (60Hz/50Hz), Double Panorama - Max 30fps/25fps@3584x1792 (60Hz/50Hz), Single Panorama - Max 30fps/25fps@3584x896 (60Hz/50Hz) **MJPEG:** Max 30fps/25fps@1080x1080 (60Hz/50Hz)
Min. Illumination	**Color**: 0.39Lux (1/30 sec, F2.2)
Video Out	**CVBS**: 1.0 Vp-p / 75- Composite, 720x480(N), 720x576)P), For Installation, **USB**: Micro USB Type B, 1280x720 for installation
LENS	
Focal Length (Zoom Ratio)	1.08mm fixed focal
Max. Aperature Ratio	F2.2
Angular Field of View	**H**: 209°/180°, **V**:83°
Focus Control	Fixed
PAN/TILT/ROTATE	
Pan/Tilt/Rotate Range	Lens Rotation
OPERATIONAL	
Camera Title	Displayed up to 85 characters
Day & Night	Auto (ICR)
Backlight Compensation	BLC / HLC / WDR / SSDR
Wide Dynamic Range (WDR)	Extreme WDR (120dB)
Digital Noise Reduction	Wise NR - (Based on AI Engine) - SSNR-
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, polygonal zones - Color: Grey/Green/Red/Blue/ White - Mosaic
Gain Control	Off / Max Gain / Manual
White Balance	ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5 ~ 1/12,000sec) Prefer Shutter Control (Based on AI Engine)
Video Rotation	Flip, Mirror
Analytics	**Analytics Events Based On AI Engine**: Object Detection (Person / Face / Vehicle / License Plate), IVA (Virtual Line / Area, Enter / Exit, Loitering, Direction, Appear / Disappear, Intrusion) **Analytics Events**: Defocus Detection, Motion Detection, Tampering, Fog Detection, Audio Detection, Sound Classification
Business Intelligence	Based on AI Engine: People Counting, Qeue Management, Heatmap
Alarm I/O	2 Configurable I/O Ports
Alarm Triggers	Analytics, Network Disconnect, Alarm Input
Alarm Events	File upload via FTP and E-Mail, Notification via E-Mail, SD/SDHC/SDXC Recording at Event Triggers, Alarm Output, PTZ Preset, Handover, Audio Playback
Audio In	Selectable(microphone in/line in/Built-in Mic) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
Audio Out	Line out, Maximum output level: 1Vrms

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NETWORK

Ethernet	Metal shielded RJ-45 (10/100BASE-T)
Video Compression	H.265 / H.264: Main / Baseline / High, MJPEG
Audio Compression	G.711 u-law /G.726 Selectable, G.726(ADPCM) 8KHz, G.711 8KHz, **G.726**: 16Kbps, 24Kbps, 32Kbps, 40Kbps, **AAC-LC**: 48Kbps at 16KHz
Smart Codec	Manual (5ea area), WiseStream- (Based on AI Engine)
Bitrate Control Method	**H.264 / H.265** : CBR or VBR, **MJPEG**: VBR
Streaming	Unicast (20 users) / Multicast, Multiple streaming (Up to 10 profiles) Up to 5 Virtual Channel Support
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, PIM-SM, UPnP, Bonjour, LLDP, SRTP
Security	HTTPS (SSL) Login Authentication, Digest Login Authentication IP Address Filtering, User Access Log, 802.1X Authentication (EAP-TLS, EAP-LEAP), Device Certificate (Hanwha Techwin Root CA)
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI (HTTP API), Wisenet Open Platform

GENERAL

Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek Micro
Edge Storage	Micro SD / SDHC / SDXC 2 slots 1TB (512GB x 2)
Memory	4096MB RAM, 512MB Flash

ENVIRONMENTAL & ELECTRICAL

Operational Temperature/Humidity	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH POE+ Mode 55°C (Hysteresis 5°C) Wise IR 8m (26.25ft)
Storage Temperature/Humidity	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 95% RH
Input Voltage	**PoE+**: 12VDC, **PoE**: (IEEE802.3at, Class3)
Power Consumption	**PoE+**: Max 23.0W, Typ 9.4W, 12VDC: Max 22.0W, Typ 9.0W, **PoE**: Max 12.95W, Typ 9.4W, 12VDC: Max 12.9W, Typ 9.0W

MECHANICAL

Color / Material	Orange / Aluminum, Anodized
RAL Code	RAL 9003
Product Weight	8.61kg (19lbs)

DORI (EN62676-4 STANDARD)

Detect (25PPM / 8PPF)	34.9m (114.49ft)
Observe (63PPM / 19PPF)	13.9m (45.60ft)
Recognize (125PPM / 38PPF)	7.0m (22.96ft)
Identify (250PPM / 76PPF)	3.5m (11.48ft)

CERTIFICATIONS & STANDARDS

EMC	FCC 47 CFR 15 Subpart B Class A, ICES-3 (A) / NMB-3 (A), CE/UKCA, EN 55032 Class A, EN50130-4, EN61000-3-2, EN61000-3-3, VCCI CISPR 32 Class A, RCM AS/NZS CISPR 32 Class A, KS C 9832 Class A, KS C 9835
Safety	UL 62368-1, CAN/CSA C22.2 No. 62368-1, IEC/EN 62471
Environment	IEC/EN 63000, IEC 60529 IP66, IEC 62262 IK10, NEMA 250 Type 4X

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