

# TNO-X6320E3T0-M

Explosion-Proof Positioning Camera Station

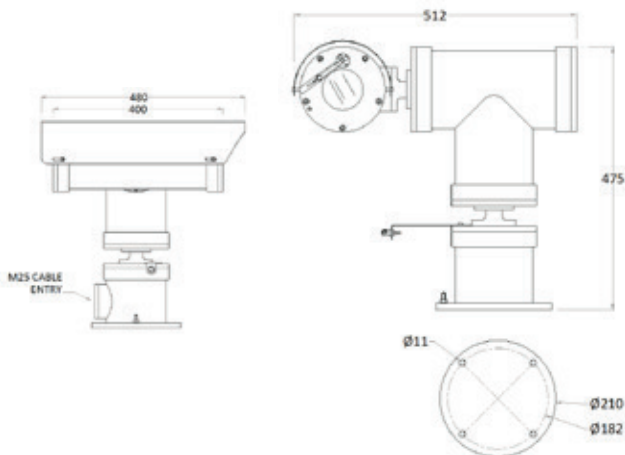


## Key Features

- 2 MP (1920 x 1080) resolution
- 4.44-142.6mm (32x) optical zoom, 16x digital zoom
- H.265, H.264, MJPEG triple codec, WiseStream II
- Day & Night (ICR), WDR (150dB)
- Video Analytics, dual SDXC memory slots
- DIS with built-in Gyro sensor
- cLCus C1/D1/INMETRO / cLC CSA Certified
- Electro-polished 316L stainless steel on all welded assemblies
- Camera station window in toughened glass
- Integrated Wiper & Optional Fiber Optics
- Supply voltage (24 VAC or 110 VAC or 220 VAC) depending on model

## Dimensions

Unit : mm



## Accessories (Optional)



HT-E-BPW6800



HTE-E-XWP10UL

## TNO-X6320E3T0-M

| VIDEO                |                                                                                                                                                                                 |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor         | 1/2.8" 2.4 MP CMOS                                                                                                                                                              |
| Resolution           | Resolution: 1920x1080 to 320x180; 60fps at all resolutions (H.265/H.264)                                                                                                        |
| Lens                 | 32x optical 16x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 62.8° - 2.23°                                                                                 |
| Pan / Tilt Range     | 360° Endless / 180°                                                                                                                                                             |
| Pan / Tilt Speed     | 45° per second / 24° per second                                                                                                                                                 |
| Minimum Illumination | Color : 0.05Lux (1/30sec, F1.6, 50IRE)<br>B/W : 0.005Lux (1/30sec, F1.6, 50IRE)                                                                                                 |
| Streaming            | H.265, H.264, MJPEG triple codec, multiple streaming, VBR/CBR, WiseStream II                                                                                                    |
| Features             | Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), HLC, auto focus, auto iris, AGC, SDR, SSNRIII, BLC, Gyro DIS, Defog                              |
| Standards Protocols  | ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour |

## SPECIFICATIONS

|                           |                                                                                                                      |
|---------------------------|----------------------------------------------------------------------------------------------------------------------|
| Sun Shield                | Standard stainless steel 316L mirror finish                                                                          |
| Integral Wiper            | Silicone wiper blades that are resistant and do not perish after long exposure to ozone, UV, ice, snow, heat or cold |
| Integral Fiber (Optional) | Built-in fiber module (Simplex single-mode 9/125μm) (F2 Models only)                                                 |
| Ingress Protection Rating | IP66/67                                                                                                              |
| Temperature Rating        | T1: -40°C ~ +60°C (-40°F ~ +140°F); T2: -60°C ~ +60°C (-76°F ~ +140°F)                                               |

## ELECTRICAL

|                       |                                                                |
|-----------------------|----------------------------------------------------------------|
| Input Voltage         | 24 VAC or 110 VAC or 220 VAC depending on model                |
| Power Consumption     | Up to 80W Maximum, depending on model                          |
| Cable Entry           | 2 x 3/4" NPT entries located in base                           |
| Body Material         | Electro-polished 316L stainless steel on all welded assemblies |
| Fixings Material      | A4 stainless steel                                             |
| Camera Station Window | Toughened glass                                                |

## CERTIFICATIONS

|             |                                                                                                                                                                                                                                           |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INMETRO     | Ex d IIC T4 (T5 On Request) Gb -60°C ≤ Ta ≤ +60°C Ex tb IIIC T135°C Db IP66/67. Certificate Number: TUV 12.1080X / TUV 12.1081X                                                                                                           |
| cLCus C1/D1 | Class I, Division 1, Groups B,C,D, -60°C ≤ Ta ≤ 60°C T4/ Class II, Division 1, Groups E, F, G IP67 CSA-C22.2 No:30-M1986 No:25-1966(R2009) CSA-C22.2 No:60065-03(R2012) & UL 1203, UL60065(ED.7). Certificate Number: 11671-1S / 11677-1S |
| cLC CSA     | Ex d IIC T4 (T5 On Request) LC1311396 -60°C ≤ Ta ≤ +60°C. CAN CSA-C22.2 No.60079-0:2011 & 60079-1-2011. Certificate Number: 11396- 1S-CSA                                                                                                 |
| Weight      | Up to 53Kg (117lb)                                                                                                                                                                                                                        |

Model Number:

## TNU-X6320E3F2WT1-M

Certification :  
cLC CSA : C  
INMETRO : M  
cLCus C1/D1 : Z

Body Style :  
Positioning : U

Power :  
24 VAC : 1  
110 VAC : 2  
220 VAC : 3

Temperature Rating :  
-40°C : T1  
-60°C : T2

Fiber :  
Single-Mode : F2

Wiper : W

**TNO-X6320E3T0-M**

|                             |                                                                                                                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>VIDEO</b>                |                                                                                                                                                                                                                             |
| Imaging Device              | 1/2.8" 2.4 MP CMOS                                                                                                                                                                                                          |
| Total Pixels                | 1981(H) x 1288(V), 2.55 MP                                                                                                                                                                                                  |
| Effective Pixels            | 1944(H) x 1212(V), 2.35 MP                                                                                                                                                                                                  |
| Scanning System             | Progressive scan                                                                                                                                                                                                            |
| Minimum Illumination        | Color : 0.05 Lux (1/30 sec, F1.6)<br>B/W : 0.005 Lux (1/30 sec, F1.6)                                                                                                                                                       |
| S / N Ratio                 | 50dB                                                                                                                                                                                                                        |
| <b>LENS</b>                 |                                                                                                                                                                                                                             |
| Focal Length (Zoom Ratio)   | 4.44 ~ 142.6mm (Optical 32x)                                                                                                                                                                                                |
| Maximum Aperture Ratio      | F1.6 (Wide) / F4.4 (Tele)                                                                                                                                                                                                   |
| Angular Field of View       | H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)                                                                                                                                                           |
| Minimum Object Distance     | Wide 1.5m (4.92ft), Tele 2m (6.56ft)                                                                                                                                                                                        |
| Focus Control               | Auto / Manual / One shot AF                                                                                                                                                                                                 |
| Lens Type                   | DC auto iris                                                                                                                                                                                                                |
| Mount Type                  | Board-in type                                                                                                                                                                                                               |
| <b>OPERATIONAL</b>          |                                                                                                                                                                                                                             |
| Camera Title                | Off / On (Displayed up to 85 characters)<br>- English / International / Numeric / Special characters<br>- Multi-line (Maximum 5), Color (Grey / Green / Red / Blue / Black / White), Transparency, Auto scale by resolution |
| Day & Night                 | Auto (ICR) / Color / B/W / Schedule                                                                                                                                                                                         |
| Backlight Compensation      | Off / WDR / BLC / HLC                                                                                                                                                                                                       |
| Wide Dynamic Range          | 150dB                                                                                                                                                                                                                       |
| Contrast Enhancement        | SSDR (On / Off)                                                                                                                                                                                                             |
| Digital Noise Reduction     | SSNR5 (2D+3D noise filter) (On / Off)                                                                                                                                                                                       |
| Digital Image Stabilization | On / Off (Built-in gyro sensor)                                                                                                                                                                                             |
| Defog                       | Off / Manual / Auto                                                                                                                                                                                                         |
| Motion Detection            | On / Off (8ea, Polygonal)                                                                                                                                                                                                   |
| Privacy Masking             | On / Off (24 Zones of rectangle zone)<br>- Color : Grey / Green / Red / Blue / Black / White<br>- Mosaic                                                                                                                    |
| Gain Control                | Off / Low / Middle / High                                                                                                                                                                                                   |
| White Balance               | ATW / AWC / Manual / Indoor / Outdoor (Included Mercury & Sodium)                                                                                                                                                           |
| Electronic Shutter Speed    | Minimum / Maximum / Anti flicker (1 ~ 1 / 12,000sec)                                                                                                                                                                        |
| Digital Zoom                | 32x                                                                                                                                                                                                                         |
| Flip / Mirror               | On / Off                                                                                                                                                                                                                    |
| Video Analytics             | Tampering, Loitering, Directional/Virtual Line detection, Fog detection, Enter/Exit, Appear/Disappear, Face detection, Motion detection, Shock detection                                                                    |
| Alarm Triggers              | Motion detection, Video analytics, Network disconnect                                                                                                                                                                       |
| Alarm events                | File upload via FTP and E-Mail, Notification via E-Mail, TCP and HTTP, Local storage (SD/SDHC/SDXC) or NAS recording at alarm triggers, Preset                                                                              |
| Pixel counter               | Support                                                                                                                                                                                                                     |

**TNO-X6320E3T0-M**

|                                   |                                                                                                                                                                                                                                                                   |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NETWORK</b>                    |                                                                                                                                                                                                                                                                   |
| Ethernet                          | RJ-45 (10/100BASE-T)                                                                                                                                                                                                                                              |
| Video Compression Format          | H.264 (MPEG-4 Part 10/AVC), H.265, Motion JPEG                                                                                                                                                                                                                    |
| Resolution                        | 1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240                                                                                                                         |
| Maximum Framerate                 | H.264 / H.265 : Maximum 60fps at all resolutions<br>Motion JPEG : Maximum 30fps at all resolutions                                                                                                                                                                |
| Smart Codec                       | Manual mode (Area-based : 5ea)                                                                                                                                                                                                                                    |
| WiseStream <sup>®</sup>           | Support                                                                                                                                                                                                                                                           |
| Video Quality Adjustment          | H.264 / H.265 / MJPEG : Target bitrate level control                                                                                                                                                                                                              |
| Bitrate Control Method            | H.264 / H.265 : CBR or VBR<br>Motion JPEG : VBR                                                                                                                                                                                                                   |
| Streaming Capability              | Multiple streaming (Up to 10 profiles)                                                                                                                                                                                                                            |
| IP                                | IPv4, IPv6                                                                                                                                                                                                                                                        |
| Protocol                          | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour                                                                                   |
| Security                          | HTTPS (SSL) login authentication, Digest login authentication, IP address filtering, User access log, 802.1X Authentication (EAP-TLS, EAP-LEAP)                                                                                                                   |
| Streaming Method                  | Unicast / Multicast                                                                                                                                                                                                                                               |
| Maximum User Access               | 20 users at Unicast mode                                                                                                                                                                                                                                          |
| Edge Storage                      | Micro SD/SDHC/SDXC 2 slots (up to 512 GB total capacity)<br>- Continuous recording(1st slot to 2nd slot)<br>- Motion Images recorded in the Micro SD/SDHC/SDXC memory card can be downloaded.<br>NAS (Network Attached Storage)<br>Local PC for instant recording |
| Application Programming Interface | ONVIF Profile S/G, SUNAPI 2.0 (HTTP API), Wisenet Open Platform                                                                                                                                                                                                   |
| Webpage Language                  | English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek                                                                                                               |
| Web Viewer                        | Supported OS : Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12<br>Plug-in Free Webviewer supported browser : Google Chrome, Microsoft Edge, Microsoft Internet Explorer, Mozilla Firefox (Windows 64-bit only) , Apple Safari 10 (Mac OS X only)                 |
| Central Management Software       | Wisenet WAVE, SmartViewer, SSM                                                                                                                                                                                                                                    |

\* The latest product information / specification can be found at [hanwhasecurity.com](http://hanwhasecurity.com)

\* Design and specifications are subject to change without notice.

\* Wisenet is the proprietary brand of Hanwha Techwin .