

# TNO-4030TR/4040TR/4041TR

VGA NW Thermal Radiometric Camera



TNO-4030TR / TNO-4040TR



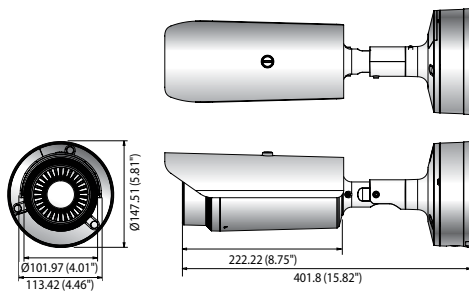
TNO-4041TR

## Key Features

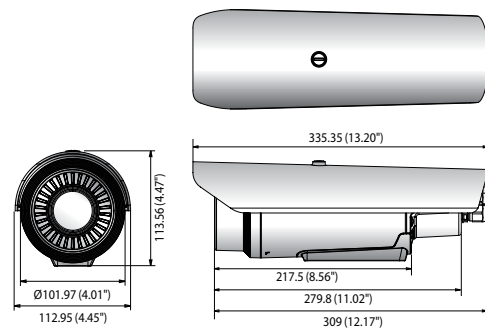
- Max. 640 x 480 resolution support
- Built-in 13/19mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification
- Temperature detection, Shock detection
- Micro SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24VAC, 12VDC / IP66, NEMA4X, IK10

## Dimensions

Unit : mm (inch)



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<b>VIDEO</b>			
Imaging Device	Uncooled micro bolometer		
Effective Pixels	None		
NETD	< 50mK		
Pixel Size	17 $\mu$ m		
Min. Illumination	None		
Video Out	CVBS : 1.0 Vp-p / 75 $\Omega$ composite, 720x480(N), 720x576(P) for installation USB : Micro USB Type B, 1280x720 for installation		CVBS : 1.0 Vp-p / 75 $\Omega$ composite, 720x480(N), 720x576(P) for installation
<b>LENS</b>			
Focal Length (Zoom Ratio)	13mm fixed focal	19mm fixed focal	
Max. Aperture Ratio	F1.0		
Angular Field of View	H : 48.6° / V : 36.4 / D : 61.6°	H : 32° / V : 24.3° / D : 39.2°	
Min. Object Distance	5m (16.40ft)	11m (36.09ft)	
Focus Control	Fixed		
<b>OPERATIONAL</b>			
Camera Title	Displayed up to 85 characters		
Digital Image Stabilization	Support (Built-in gyro sensor)		
Motion Detection	8ea, 8point polygonal zones		
Privacy Masking	32ea, polygonal zones - Color : Grey / Green / Red / Blue / Black / White - Mosaic		
Video Rotation	Flip, Mirror, Hallway view (90°/270°)	Flip, Mirror	
Analytics	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection		
Serial Interface	-	RS-485 (Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell)	
Alarm I / O	Input 1ea / Output 2ea		
Alarm Triggers	Analytics, Network disconnect, Alarm input		
Alarm events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handover		
Audio In	Selectable (mic in/line in) Supply voltage : 2.5VDC (4mA), Input impedance : 2K Ohm		
Audio out	Line out, Max.output level : 1Vrms		
<b>RADIOMETRY</b>			
Temperature detect range	-20°C~130°C (-4°F~266°F)		
Temperature accuracy	$\pm$ 5°C( $\leq$ 100°C), $\pm$ 20%(>100°C)		
Temperature detection	3ea rectangular		
Additional	Hybrid palettes, Spot temperature reading		
<b>NETWORK</b>			
Ethernet	RJ-45 (10/100BASE-T)		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
Resolution	640 x 480, 640 x 360, 320 x 240		
Max. Framerate	H.265/H.264 : Max. 30fps/25fps (60Hz/50Hz) MJPEG : Max. 30fps/25fps (60Hz/50Hz)		
Smart Codec	Manual (5ea area), WiseStream II		

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<b>Video Quality Adjustment</b>	H.264/H.265 : Target bitrate level control MJPEG : Target bitrate level control		
<b>Bitrate Control</b>	H.264/H.265 : CBR or VBR MJPEG : VBR		
<b>Streaming</b>	Unicast (20 users) / Multicast Multiple streaming (Up to 10 profiles)		
<b>Audio Compression</b>	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		
<b>Protocol</b>	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		
<b>Security</b>	HTTPS (SSL) login authentication Digest login authentication IP address filtering User access log 802.1X authentication (EAP-TLS, EAP-LEAP)		
<b>Edge Storage</b>	Micro SD/SDHC/SDXC 1slot 256GB		
<b>Application Programming Interface</b>	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform		
<b>Webpage Language</b>	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek		
<b>Web Viewer</b>	Supported OS : Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser : Google Chrome Supported Browser : MS Explorer11, MS Edge, Mozilla Firefox (Windows 64bit only), Apple Safari (Mac OS X only)		
<b>Memory</b>	1024MB RAM, 256MB Flash		
<b>ENVIRONMENTAL</b>			
<b>Operating Temperature / Humidity</b>	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH		
<b>Storage Temperature / Humidity</b>	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH		
<b>Certification</b>	IP66, IK10, NEMA4X		
<b>ELECTRICAL</b>			
<b>Input Voltage</b>	PoE (IEEE802.3af, Class3), 24VAC, 12VDC		
<b>Power Consumption</b>	PoE : Max. 10W, typical 8.6W 12VDC : Max. 9W, typical 7.5W 24VAC : Max. 10.5W, typical 8.9W		
<b>MECHANICAL</b>			
<b>Color / Material</b>	White / Aluminium		
<b>RAL Code</b>	RAL9003		
<b>Product dimensions / weight</b>	Φ101.97x401.8mm (4.01x15.82") / 3,124g (6.89lb)		Φ101.97x309mm (4.01x12.17") / 2,452g (5.41lb)

\* The latest product information / specification can be found at [hanwha-security.co.uk](http://hanwha-security.co.uk)

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

\* Wisenet is the proprietary brand of **Hanwha Techwin**.