

XCU3 COMPACT THERMAL

XCU3 Compact 316L intelligent thermal camera

DESCRIPTION

Rugged thermal imaging camera for demanding environments. Thermal cameras can be used 24/7 for all sorts of monitoring or detection purposes. The XCU3 Compact Thermal is fitted with a radiometric thermal module and video analytics to actively help with perimeter surveillance, fire detection, and hotspot detection. The XCU and its accessories are double protected against corrosion; they are entirely made of powder-coated 316L stainless-steel. The housing is hermetically sealed against water and dust, which makes it ideal for harsh environments like traffic, tunnels, marine, offshore, heavy industry, waste management, etc. Thermal products with framerates above 9 fps are bound. The XCU3 may be subject to EU export control under EU 2021/821

FEATURES

- Uncooled radiometric thermal imager
- Compact, robust, and corrosion free
- powder-coated 316L stainless steel housing
- Choice of lenses
- Plug & Play
- Built-in analytics
- Water and dust tight: IP66 & IP67
- ONVIF Profile S conformant



Description

The XCU3 Thermal is designed to operate in harsh and aggressive environments. Typical applications are found in the heavy industry, traffic, tunnels, waterways, waste treatment and even in marine environments. The XCU3 Compact Thermal is fitted with an uncooled thermal imager with a choice of lenses.

Plug & Play

Installing and commissioning IP cameras has become easy. The XCU3 Compact slides into place with its versatile mounting accessories and is operational by plugging in the external connector. No need to open the unit; all connections can be prepared in advance.

Night Vision and Hot spot detection

The XCU3 Compact Thermal is fitted with a highly sensitive uncooled microbolometer for thermal imaging. It detects temperature differences as small as 35 mK and can spot heat sources invisible to the naked eye. When the darkness obscures the vision of an ultra-low light CCTV camera, the thermal camera gives a clear overview of what is going on.

Multi-streaming and multicasting

The XCU3 Compact Thermal has multi-streaming capabilities for simultaneous transmission of one or more H.265 or H.264 streams. This guarantees interoperability with existing VMS systems. Multiple combinations of resolution and frame rate can be configured to satisfy different live-viewing and recording scenarios. In addition, multicasting is supported for complex, multi-user video networks.

Open standards

Out of the box, the XCU3 integrates with the common VMS systems. Being ONVIF Profile S conformant the camera is supported by most video management systems. When needed, the camera can be controlled through a comprehensive HTTP API (Siqua Programming Interface). This specifically enables deployment in projects with custom requirements.

Built-in video analysis

The XCU3 Compact Thermal is fitted with on-board analytics for intrusion detection, flare monitoring, and hotspot detection.



(c) 20260429

Camera housing	
Body material	316L stainless steel
Finishing	Powder coated (RAL9016)
Sunshield	316L powder coated, (RAL9016)
Heater/Demister	Standard
Window	Diamond Like Coated (DLC) germanium
Ingress protection	IP66, IP67
Corrosion Class	C5 (ISO 12944)
Impact rating casing	IK10
Solar radiation test	MIL-STD-810, method 505.4 (p.4)
Shock test (transportation)	MIL-STD-810, method 516.5
Vibration (IEC 50068-2-6)	10 Hz to 150 Hz, 0.5g, all 3 axes, 1 oct/min, 1 sweep
Max wind velocity	240 km/h (150 mph)
Operating temperature	-40 °C to +74 °C (-40 °F to 165 °F) - per Nema TS-2
- Continuous (sheltered, air temp)	-30 °C to +55 °C (-22 °F to 131 °F)
- Cold start	-30°C (-22 °F)
Relative Humidity	5% to 100%
Dry heat test	+75 °C, 24 hours
Storage conditions	
- Ambient temperature storage	-50°C to +85 °C (-58 °F to 185 °F),
- Relative humidity storage	10% to 90%
Weight	2.0 kg (2.5 kg incl. packaging)

Thermal imager/lens (Txxyyz)				
- xx = Focal Length	09; 13; 19; 25			
- y = Max frame rate	S= 8.3 fps; F= 30 fps			
- zz = Resolution	3X= 384x288; 6X= 640x512			
Imager type	T09y3X	T13y3X	T19y3X	T25y3X
- Focal length	9.1 mm	13 mm	19 mm	25 mm
- Pixel size	17µm	17µm	17µm	17µm
- Resolution	384x288	384x288	384x288	384x288
- Field of view	39.5°x30.1°	28.2°x21.3°	19.5°x14.7°	14.9°x11.2°
- Min focus distance	1.5 m	3 m	6 m	10 m
- f-number	f/1.0	f/1.0	f/1.0	f/1.1
Imager type	T09y6X	T13y6X	T19y6X	T25y6X
- Focal length	9.1 mm	13 mm	19 mm	25 mm
- Pixel size	12µm	12µm	12µm	12µm
- Resolution	640x512	640x512	640x512	640x512
- Field of view	48.0°x38.4°	32.9°x26.6°	22.9°x18.4°	17.4°x14.0°
- Min focus distance	2 m	5 m	10 m	16 m
- f-number	f/1.0	f/1.0	f/1.0	f/1.0
Lens type	Fixed focus, athermalized			
Imager	uncooled micro-bolometer (VOx)			
Spectral bandwidth	7.5 µm to 13.5 µm (LWIR)			

Specs



Thermal imager/lens (Txyzz)

Nominal NETD	< 35 mK @ f/1.0
Radiometric	Yes
Flat field correction	Yes
Time to image	< 60 s
Digital zoom	No
Color palette	7 color palettes; 1 isotherm palette with adjustable temp. levels
Radiometric	yes (Isotherm color palette)

Video stream

Number of streams	2x
Aspect ratio	5:4
Compression algorithm(s)	AVC/H.264 (MP), HEVC/H.265, MJPEG
Supported output resolutions	Output images are up- or down-scaled 720x576 (D1); 704x576; 640x480; 480x576, 352x576; 704x288; 352x288; 320x240, 176x144
Compression bit rate control	Variable bit rate (VBR)
Output bit rate (per stream)	Up to 6Mb/s
Number of video output streams	Up to 20 (RTSP) per input
Total output data rate (max)	50Mb/s
Video overlay	3x Text lines, analytics overlay

Analytics

PID	Intrusion detection. Free form zones or detection lines
- Detection line	Touch, Cross (directional sensitive), Cross
- Detection zone	Touch
Hotspot detection	in two zones
- Measuring range	-20°C to 150°C or 0°C to 550°C
- Accuracy*	+/- 2°C (typical below 100 °C); +/- 3% (over 100°C)
Flare monitoring	Flare-on, Flare-off, Flare-too-large
Event time	0 to 10 s
Event output	generic ONVIF, SPI

Local recording

Edge recording	Yes
Recording media	RAM or SD card
Recording mode	event driven or continuous
Replenishment support	Yes (according ONVIF Profile G)
SD card	micro SDHC (up to 32 GB)

Electrical

Supply voltage	24 Vac 50/60 Hz or 24 Vdc (Galvanic isolated)
PoE	IEEE802.3af or IEEE802.at type I
Power consumption	7 W nominal; 12 W max

Electrical

Power connector	3-pin 7/8" Conec
Network connector	Conec IP67 RJ45

Network

Interface(s)	100/1000 Mb Ethernet, auto negotiating, MDI/MDX
- Singlemode fiber optional	GBE Singlemode SFP: "SFP SM 1310 20km 1Gb", dual LC (1310nm, 20km, 1GBE)
- Multimode fiber optional	GBE Multimode SFP: "SFP MM 1310 2km 1000Mb", dual LC (1310, 2km, 1GBE)
Protocols	IPv4, TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, UPnP, IGMP, SNMP, QoS, ONVIF, TLS1.2, TLS1.3
Password levels	Viewer, Operator and Administrator
Supported browsers	Edge, Chrome, Firefox, Safari
User accounts	20

Ordering information

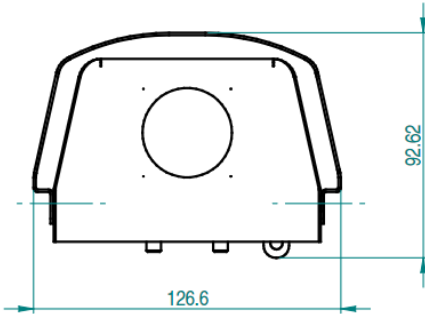
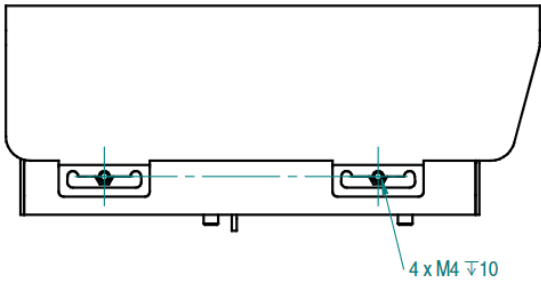
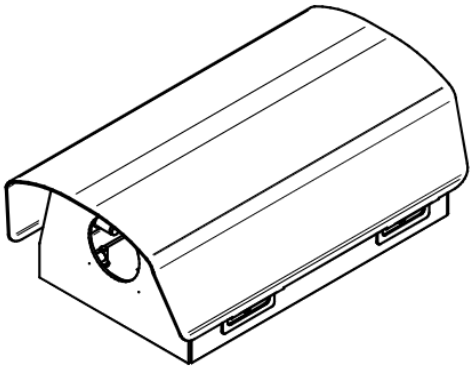
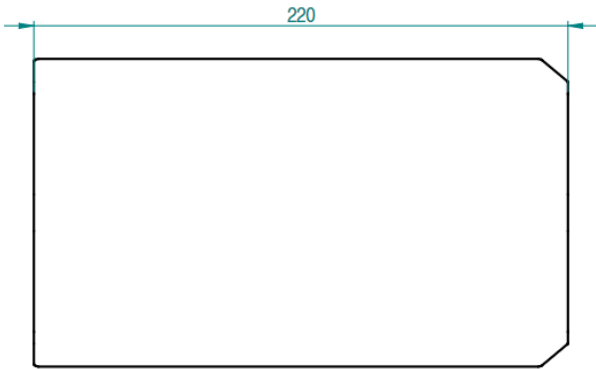
XCU3-C-T09S3X	XCU3 Compact 316L intelligent thermal imager 384x288, 40°, 8.3fps
XCU3-C-T13S3X	XCU3 Compact 316L intelligent thermal imager 384x288, 28°, 8.3fps
XCU3-C-T19S3X	XCU3 Compact 316L intelligent thermal imager 384x288, 19°, 8.3fps
XCU3-C-T25S3X	XCU3 Compact 316L intelligent thermal imager 384x288, 15°, 8.3fps
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XCU3-C-T25F3X	XCU3 Compact 316L intelligent thermal imager 384x288, 15°, 30fps
XCU3-C-T09S6X	XCU3 Compact 316L intelligent thermal imager 640x512, 45°, 8.3fps
XCU3-C-T13S6X	XCU3 Compact 316L intelligent thermal imager 640x512, 33°, 8.3fps
XCU3-C-T19S6X	XCU3 Compact 316L intelligent thermal imager 640x512, 23°, 8.3fps
XCU3-C-T25S6X	XCU3 Compact 316L intelligent thermal imager 640x512, 17°, 8.3fps
XCU3-C-T09F6X	XCU3 Compact 316L intelligent thermal imager 640x512, 45°, 30fps
XCU3-C-T13F6X	XCU3 Compact 316L intelligent thermal imager 640x512, 33°, 30fps
XCU3-C-T19F6X	XCU3 Compact 316L intelligent thermal imager 640x512, 23°, 30fps
XCU3-C-T25F6X	XCU3 Compact 316L intelligent thermal imager 640x512, 17°, 30fps
For direct Fiber out	Contact TKH Security for availability
Cable connectors	included

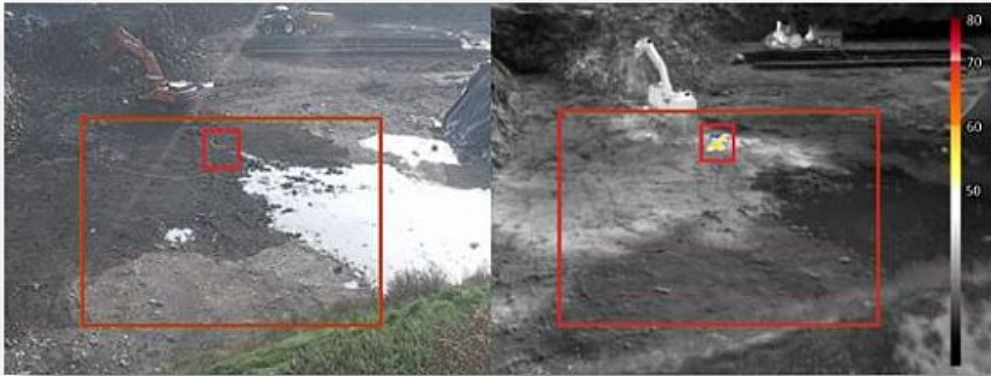
Mounting accessories

XCUWM01	XCU 316L Wall/Pole mount with swivel, RAL9016
XCUCM01	XCU 316L Rugged ceiling mount, RAL9016
XCUSW01	XCU 316L Swivel Mount (swivel only), RAL9016

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*: Accuracy at a distance up to 5 m @ 25°C, RH 50% or less, 9mm lens





FlameGuard: Hotspot detection at a waste management site



FlameGuard: Fire detection in a machine room

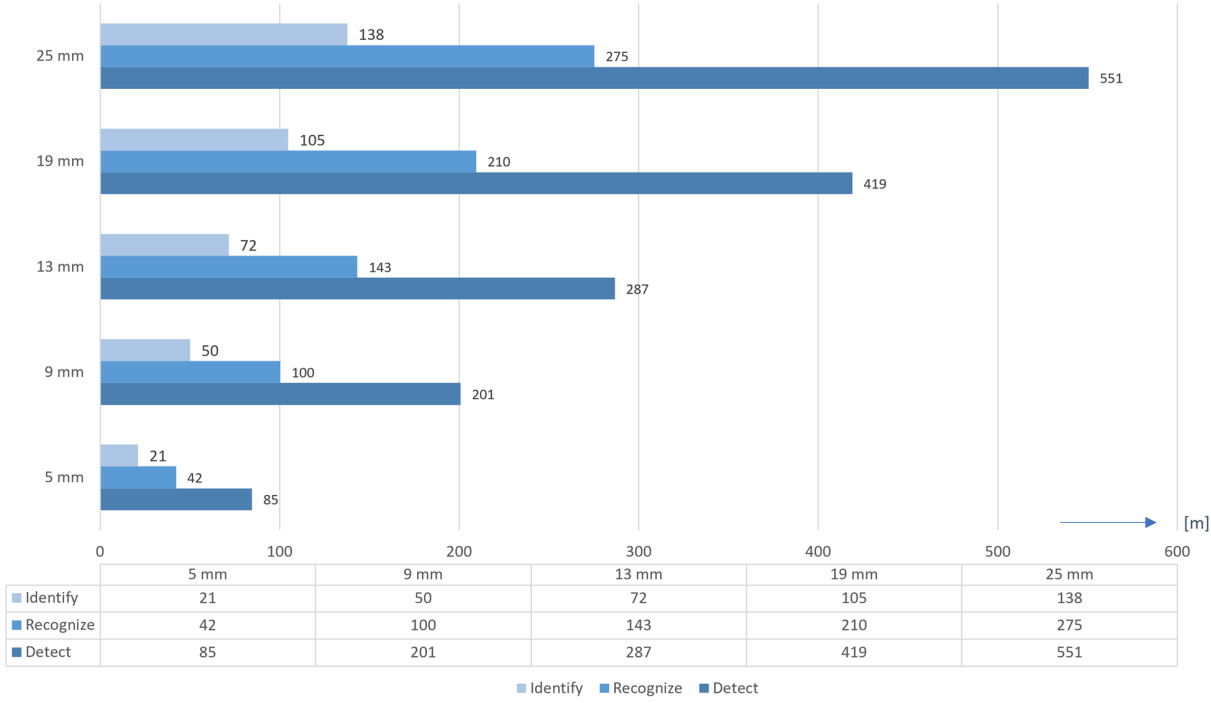


FenceGuard: Perimeter intrusion detection

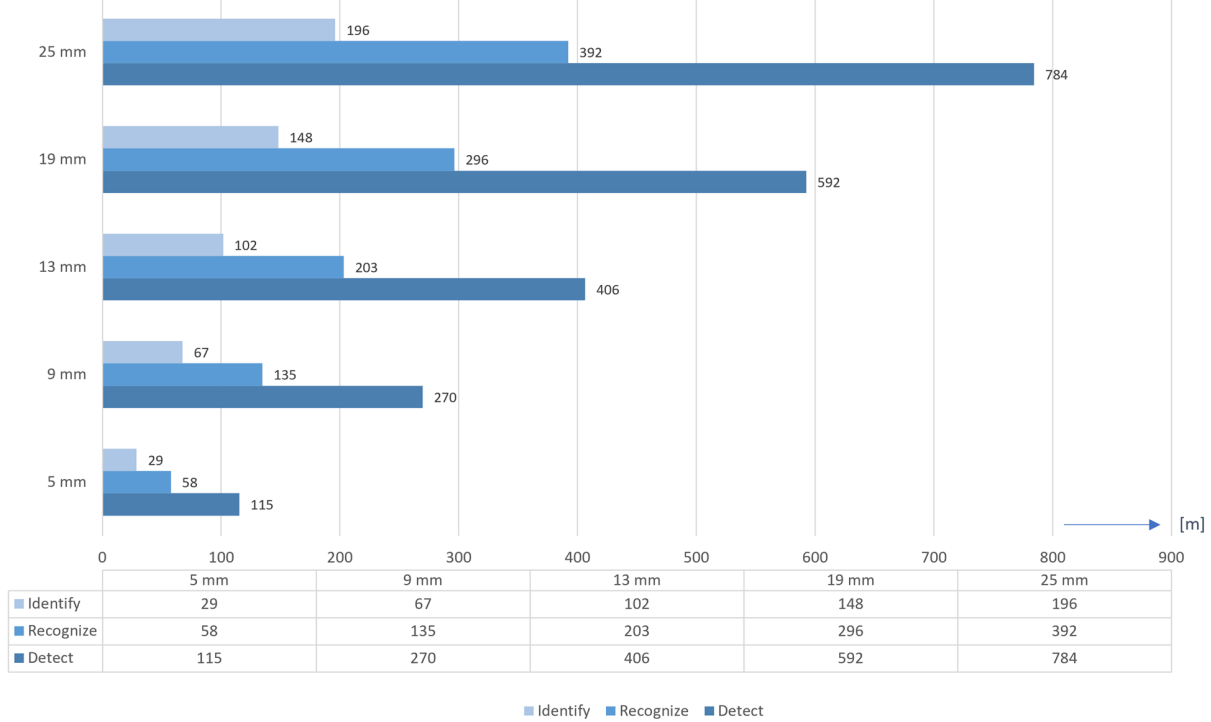


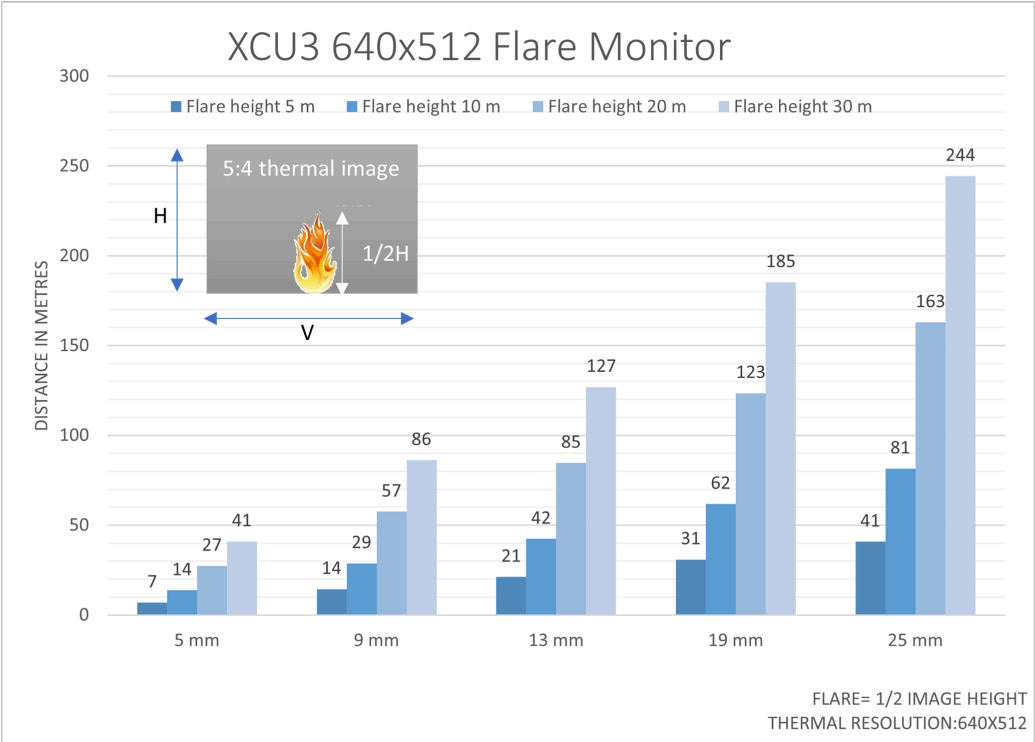
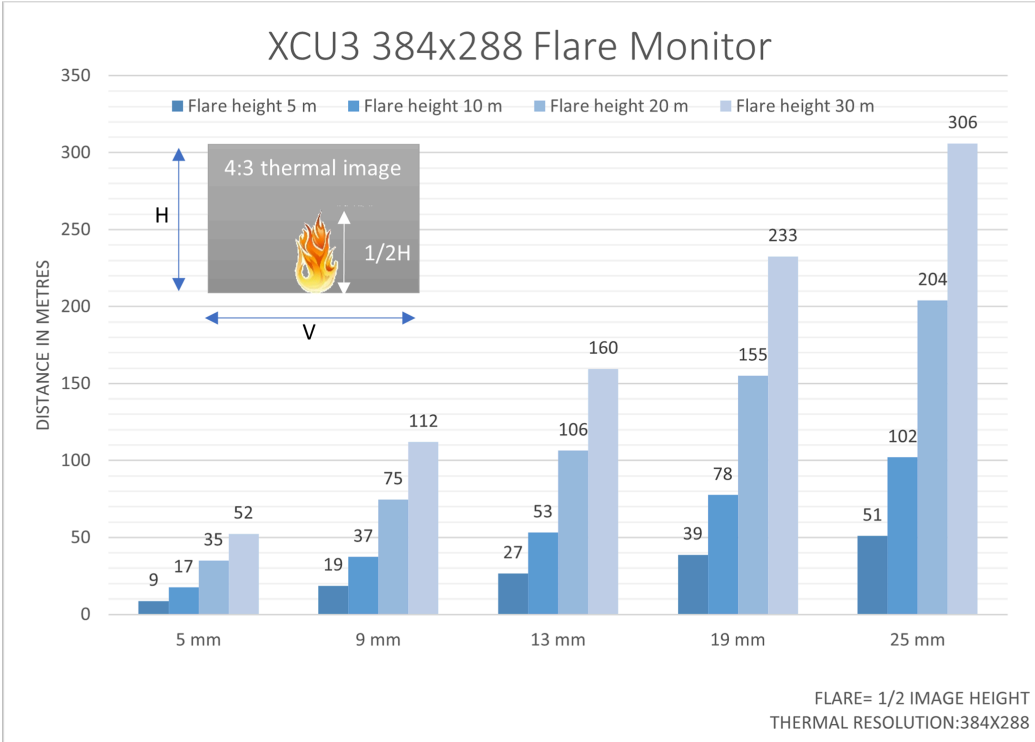
Fire detection, hot-spot and flare monitoring

XCU3 384x288: Human Detect (2.7 p/m), Recognize (5.5 p/m), and Identify (10.7 p/m)



XCU3 640x512: Human Detect (2.7p/m), Recognize (5.5 p/m), and Identify (10.7p/m)





RELATED



Siqura XCUCM01
Ceilingmount for the XCU Fusion and Compact



Siqura XCUWM01
316L Wall-Pole mount with swivel for the XCU Fusion and Compact
