

# ULISSE COMPACT THERMAL



DUAL VISION PTZ WITH DAY/NIGHT AND THERMAL CAMERAS FOR MONITORING IN TOTAL DARKNESS



ULISSE COMPACT THERMAL

## DESCRIPTION

The PTZ ULISSE COMPACT THERMAL camera offers an exceptional integrated solution, for effective monitoring even in complete darkness or in extreme environmental conditions, fog, rain, smoke.

In fact, the unit incorporates an aligned visual camera and thermal camera, with independent management of the two video flows.

The Day/Night camera is able to clearly identify the target in normal light conditions, while the thermal vision detects people and events, in complete darkness, smoke or thick fog.

Constant and reliable non-stop monitoring of outdoor areas and infallible system for detecting events and presences.

The accurate top-mount configuration guarantees long-range vision and continuous horizontal axis rotation, combining high speed with absolute tracking accuracy, both in manual mode and in patrol mode.

## MAIN FEATURES

Dual independent video output

Complete control via RS485 of both cameras

Thermal camera:

- Sensor: Uncooled microbolometer (VOx)
- Lenses: 35mm or 25mm
- Resolution 336x256 or 640x512

Day/night camera 36x

- True Progressive Scan (only 36x)
- High resolution: up to 550 TV Lines
- Advanced image stabilizer (Stable Zoom Mode)
- Day/Night (Auto ICR: automatic removal of IR filter)
- Dynamic video masking of different areas

Variable speed: from 0.1°/s up to 200°/s horizontal and vertical movement

Horizontal continuous rotation, vertical from -90° up to +90°

Position accuracy: 0.05°

Up to 250 Presets

Operating temperature: from -40°C (-40°F) up to +60°C (140°F)

Integrated wiper

Power supply: 230Vac, 24Vac or 120Vac

## TECHNICAL DATA

### GENERAL

Germanium window for thermal camera  
Easy installation thanks to the self-centring connector  
Zero backlash  
Quick configuration and setup  
Dynamic positioning control system  
16-characters string for zone and preset titling  
Functions: Autopan, Preset, Patrol, Tour (maximum 3), Autoflip

### MECHANICAL

Constructed from aluminium and tecnopolymer  
Epoxypolyester powder painting, RAL9002 colour  
Horizontal rotation: 360°, continuous rotation  
Vertical rotation: from -90° up to +90°  
Horizontal speed (variable): from 0.1° up to 200°/s  
Tilt speed (variable): from 0.1° up to 200°/s  
Accuracy of preset positions: 0.05°  
Cable glands: 2xM16, 2xM12  
Unit weight: 12.5kg (28lb)

### HOUSING'S WINDOW

Glass window extra clear  
• Thick: 3mm (0.1in)  
Germanium window  
• Thick: 1.5mm (0,06in)  
• External treatment: antiscratch (Hard Carbon Coating - DLC), antireflection  
• Internal treatment: antireflection  
• Spectral range: from 7.5µm up to 14µm  
• Medium transmittance (from 7.5µm up to 11.5µm): 91.2%  
• Medium transmittance (from 11.5µm up to 14µm): 80.9%

### ELECTRICAL

Supply voltage/Current consumption:  
• 230Vac, 0.4A, 50/60Hz  
• 24Vac, 4A, 50/60Hz  
• 120Vac, 0.8A, 50/60Hz  
Power consumption  
• 40W: P&T static, heating switched off  
• 60W: P&T in motion, heating switched off  
• 125W: peak at start-up, heating switched on  
Cables input section: from 1.5mm<sup>2</sup> (16AWG) up to 0.75mm<sup>2</sup> (19AWG)  
Cables signal section: from 1.5mm<sup>2</sup> (16AWG) up to 0.14mm<sup>2</sup> (30AWG)  
Video line: coaxial cable (1Vpp, 750hm)  
I/O alarm board  
• Alarm inputs: 6  
• Relay outputs: 2 (2A, 30Vac/60Vdc max)

### SERIAL COMMUNICATIONS

Configuration through OSM  
Half-duplex serial RS-485 interface, full-duplex RS-422 and daisy-chain architecture  
Firmware updating from console in remote mode (PELCO D, MACRO)  
Up to 1023 units, addressable by means of dip-switches  
Serial communication protocol: AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, MACRO

Maximum number of presets for protocol

- AMERICAN DYNAMICS: 95\*
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99\*
- VIDEOTEC MACRO: 250

\*250, from OSD only (On Screen Display)

### ENVIRONMENT

For indoors and outdoors installation  
Operating temperature  
• Continuous working: from -40°C (-40°F) up to +60°C (140°F)  
• Non continuous working (absolute maximum temperature for short periods): +65°C (149°F)  
Wind resistance  
• Operational: up to 160km/h  
• Stationary: up to 210km/h  
Surge immunity: up to 2kV line to line, up to 4kV line to earth (Class 4)  
Relative humidity: from 5% up to 95%

### CERTIFICATIONS

Electrical safety (CE): EN60950-1, IEC60950-1  
Electromagnetic compatibility (CE): EN61000-6-4, EN50130-4, EN55022 (Class A), EN61000-6-4, FCC Part 15 (Class A)  
Outdoor installation (CE): EN60950-22, IEC60950-22  
IP protection degree (EN60529): IP66  
UL certification: cULus Listed, TYPE 4X  
EAC certification

**ACCESSORIES**

UPTJBUL	Junction weatherproof box for cables connexion (according UL norm)
WASPT0V5L5M00	Water tank 5l (1.3gal), pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac
WASPT0V23L5M00	Water tank 23l (6gal), pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac
WASPT0V23L11M00	Water tank 23l (6gal), pump with delivery up to 11m (36ft) with water floating, IN 230Vac-24Vac-120Vac
WASPT1V23L30M00	Water tank 23l (6gal), pump with delivery up to 30m (98ft) with water floating, IN 230Vac
WASPT3V23L30M00	Water tank 23l (6gal), pump with delivery up to 30m (98ft) with water floating, IN 120Vac
WASN1V10L20M00	Tank 10l (2.6gal) with integrated manual pump controlled by solenoid valve, delivery head up to 20m (66ft) max, IN 230Vac

WASN2V10L20M00 Tank 10l (2.6gal) with integrated manual pump controlled by solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac

WASN3V10L20M00 Tank 10l (2.6gal) with integrated manual pump controlled by solenoid valve, delivery head up to 20m (66ft) max, IN 120Vac

**BRACKETS AND ADAPTORS**

UPTWBA	Wall bracket with internal cable channel
UPTWBTAB	Parapet bracket with internal cable channel
WCWGC	Corner mount adaptor
PTCC1	Pole mount adaptor

**PACKAGE**

Model Number	Weight	Dimensions (WxHxL)	Master carton
UCT1QAWA000A	16kg (35lb)	66x33x57cm (26x13x22in)	-

**ANALOGUE CAMERAS (DAY/NIGHT)**

	Day/Night 36x	
	PAL	NTSC
Optical zoom	36x	
Wide Dynamic Range (ON, OFF, Auto)	√	
True progressive SCAN	√	
Digital image stabilization	√	
White balance	Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto), Manual	
High horizontal resolution	Up to 550 TV Lines	
Day/Night (Auto ICR)	√	
Image Device	1/4" EXView HAD CCD	
Number of effective Pixels	~ 440000 pixel	~ 380000 pixel
Min. Lighting Colour (IR-Cut Filter = OFF) (Interlace Mode)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s
Min. Lighting B/W (Interlace Mode)	0.01 Lux / 1/3s	0.01 Lux / 1/4s
"Shutter Time" automatic increase to improve the night surveillance	√	
S/N ratio	More than 50dB	
AE control	Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual	
Back light compensation	On/Off	
Spherical masking (3D) of Privacy zones with automatic upgrade	√	
Privacy Zone Masking	On/Off (24 positions)	
Maximum number of masking blocks to be displayed	8	
Resolution of masking blocks	160x120 HxV	
Masking	Up to 15 different masking types: 14 colour types or mosaic	
Focusing system	Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual	
"Smart" lens control	Automatic Lens Reset	
High Zoom and Wide Horizontal Field of View Capability	√	
Optical zoom	36x, f=3.4 (wide) to 122.4mm (tele) / F1.6 to F4.5	
Digital Zoom	12x (432x with optical zoom)	
Horizontal field of view	57.8 degrees (wide) to 1.7 degrees (tele)	
Minimum object distance	10mm (0.4in) (wide) to 1500mm (59.1in) (tele)	
Shutter speed	1/1 ÷ 1/10000s	

**THERMAL CAMERAS (RESOLUTION 336X256)**

	Lens 25mm		Lens 35mm	
	PAL	NTSC	PAL	NTSC
Image Device	Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Interpolated resolution	720x576	720x480	720x576	720x480
Pixel dimensions	17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	√		√	
Digital Zoom	2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontal field of view	13°		9,3°	
Vertical field of view	10°		7,1°	
F-number	F/1.1		F/1.2	
Thermal sensitivity (NEΔT)	< 50mK at f/1.0		< 50mK at f/1.0	
Person (detection / recognition / identification)	930m / 230m / 116m (3051ft / 754ft / 380ft)		1280m / 320m / 160m (4199ft / 1050ft / 525ft)	
Car (detection / recognition / identification)	2800m / 710m / 360m (9186ft / 2329ft / 1181ft)		3850m / 950m / 295m (12631ft / 3116ft / 967ft)	

**THERMAL CAMERAS (RESOLUTION 640X512)**

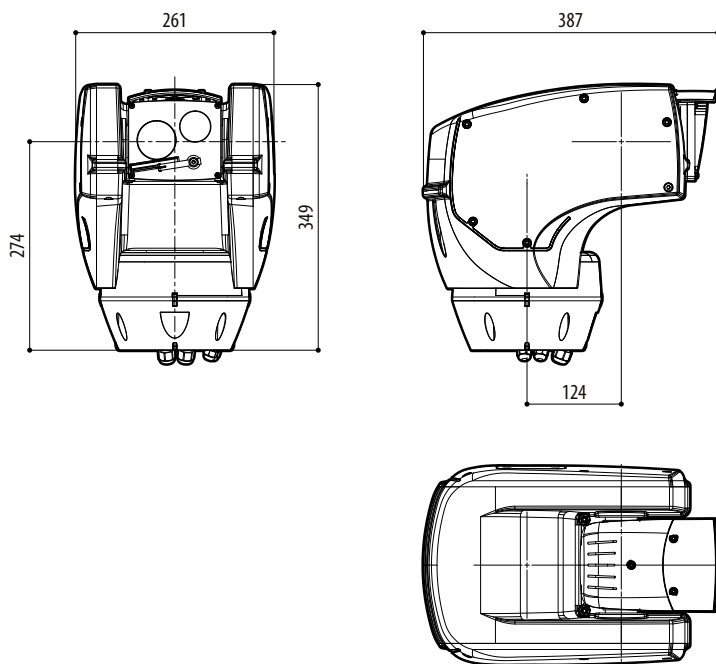
	Lens 25mm		Lens 35mm	
	PAL	NTSC	PAL	NTSC
Image Device	Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Interpolated resolution	720x576	720x480	720x576	720x480
Pixel dimensions	17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	√		√	
Digital Zoom	2x, 4x, 8x		2x, 4x, 8x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontal field of view	25°		18°	
Vertical field of view	20°		14°	
F-number	F/1.1		F/1.2	
Thermal sensitivity (NEΔT)	< 50mK at f/1.0		< 50mK at f/1.0	
Person (detection / recognition / identification)	820m / 210m / 104m (2690ft / 689ft / 341ft)		1140m / 280m / 142m (3740ft / 919ft / 466ft)	
Car (detection / recognition / identification)	2200m / 580m / 290m (7218ft / 1903ft / 951ft)		3000m / 800m / 200m (9843ft / 2625ft / 656ft)	

### ULISSE COMPACT THERMAL - CONFIGURATION OPTIONS

	Voltage	Day/Night camera	Thermal camera		Video Output	Frequency
<b>UCT</b>	<b>1</b> 230Vac	<b>P</b> Day/Night camera 36x optical zoom lens, PAL	<b>A</b> Thermal camera 35mm - 336x256	<b>W</b> With integrated wiper	<b>A</b> <b>0</b> Analog control	<b>00A</b> - 7.5-8.3Hz
	<b>2</b> 24Vac	<b>N</b> Day/Night camera 36x optical zoom lens, NTSC	<b>B</b> Thermal camera 25mm - 336x256			<b>H</b> 25-30Hz
	<b>3</b> 120Vac		<b>D</b> Thermal camera 35mm - 640x512			
			<b>E</b> Thermal camera 25mm - 640x512			

### TECHNICAL DRAWINGS

The indicated measurements are expressed in millimetres.



ULISSE COMPACT THERMAL