

ULISSE COMPACT THERMAL

DUAL CAMERA POSITIONING UNIT FOR THERMAL IMAGING

REVISION 1027

MAIN FEATURES

Positioning unit with integrated Day/Night camera, thermal camera, P&T head and telemetry receiver

Thermal camera image sensor: uncooled VOx microbolometer

35mm, 25mm and 9mm lens for thermal camera

Dual independent video output

Variable speed: 0.1°-200°/s Pan and 0.1°-200°/s Tilt

Pan rotation: continuous; Tilt rotation -90°/+90°

36x, 18x or 10x optical zoom capability for color camera

Integrated wiper for the cleaning of both viewing windows



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DESCRIPTION

ULISSE COMPACT THERMAL offers an integrated solution for vision even in total darkness, fog, rain, heavy smoke.

This integrated P&T unit combines an advanced thermal imaging camera and an optical day/night zoom module, factory-aligned and installed within the same enclosure.

ULISSE COMPACT THERMAL features two independent video outputs and allows dual real-time vision on monitors for an optimal monitoring of the area.

ULISSE COMPACT THERMAL offers continuous, high-speed rotation, positioning precision, superior image quality, utmost sturdiness and simplified system configuration. The speed reaches 200°/s in continuous horizontal rotation, with vertical range between -90° to +90°.

ULISSE COMPACT THERMAL manages the preset, auto-pan and patrol functions with an accuracy 0.1°. The unit perform a constant monitoring and correction of his position, very useful in case of difficult environmental conditions.

The thermal camera is an Uncooled Vanadium Oxide microbolometer (VOx) with spectral band 7.5-13.5 μm; it delivers a thermal video of 320x256 (PAL) and 320x240 (NTSC), with an image frequency of 8.3fps or 25 fps (PAL) and 7.5 or 30fps (NTSC). The high sensitivity NeEdT 50mK at f/1.0 ensures an optimal thermal imaging. It supports 2x or 4x digital zoom. A choice of lens sizes is offered between 35mm, 25mm and 9mm, depending on the detection distance required.

The thermal camera parameters are easily configurable on OSD. The setup interface offers typical pre-set configurations or complete customization of the system.

The camera also has functions such as the Isothermal analysis (special colors of the objects that fall within the parameters set by the operator), base thermography and other colors of the scene.

The integrated day/night SONY camera offers a selection from different zoom lenses, 36x, 18x or 10x, which allows the recording with exceptional precision of both close-by and far away objects, as well as dynamic privacy zone masking. Furthermore, the Super HAD, 1/3" CCD (for 10x optical zoom) guarantees an excellent sensitivity in poorly lit environments.

ULISSE COMPACT THERMAL is also available with the only thermal camera. Supplied in 24, 230 or 120Vac and in PAL or NTSC mode.

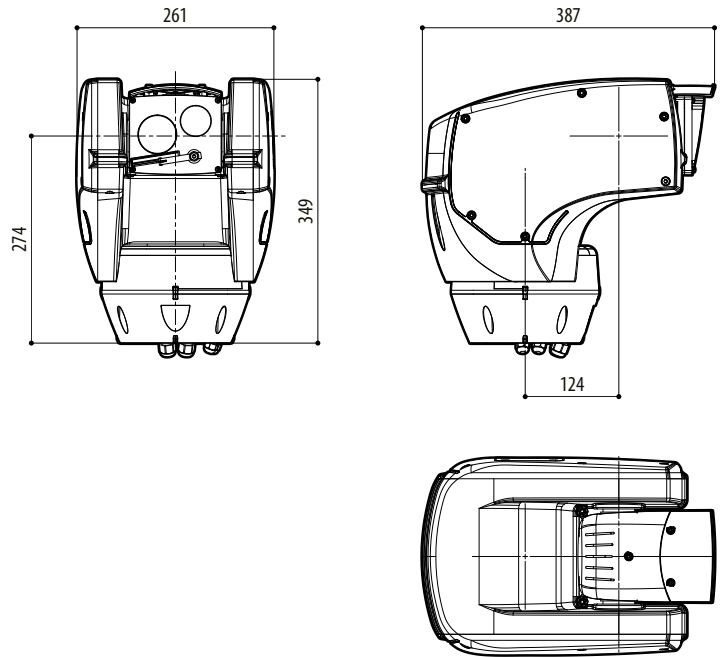


| AVAILABLE MODELS | | | | | | |
|------------------|--------------|--------------|----------------|-----------------|--------------|-------|
| Code | Power Supply | Optical Zoom | Thermal camera | Image frequency | Video signal | Wiper |
| UCT1PBWA000A | 230Vac | 36X | 25mm | 7.5-8.3Hz | PAL | • |
| UCT1PAWA000A | 230Vac | 36X | 35mm | 7.5-8.3Hz | PAL | • |
| UCT2PBWA000A | 24Vac | 36X | 25mm | 7.5-8.3Hz | PAL | • |
| UCT2PAWA000A | 24Vac | 36X | 35mm | 7.5-8.3Hz | PAL | • |
| UCT2NBWA000A | 24Vac | 36X | 25mm | 7.5-8.3Hz | NTSC | • |
| UCT2NAWA000A | 24Vac | 36X | 35mm | 7.5-8.3Hz | NTSC | • |

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Besides the OSD configuration, the system is equipped with an RS485/RS422 interface for complete system control and for the updating in remote mode of the latest firmware version.

This solution is particularly suited for round-the-clock video surveillance in a wide range of high security environments such as perimeter protection, airports, coastlines, prisons and harbours.



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TECHNICAL DATA

GENERAL

Constructed from aluminium and tecnopolymer
 Epoxy polyester powder painting, RAL9002 colour
 Germanium glass window for thermal camera
 Easy installation thanks to the self-centring connector
 Zero backlash
 Dynamic positioning control system

MECHANICAL

2 cable glands M16 and 2 cable glands M12
 Horizontal continuous rotation
 Vertical rotation -90° to +90°
 Variable pan speed: from 0.1° up to 200°/s
 Variable tilt speed: from 0.1° up to 200°/s
 Preset accuracy: 0.1°

ELECTRICAL/VIDEO

Input voltage:

- 230Vac, 50/60Hz,
- 24Vac, 50/60Hz
- 120Vac, 50/60Hz

Current consumption:

- 230Vac, 0.4°
- 24Vac, 4°
- 120Vac, 0.8°

Power consumption:

- 40W with pan-and-tilt stopped and heating switched off
- 60W in motion, with heating switched off
- 125W peak at start-up, with heating switched on

Input cables size: AWG 16-19

Signal cables size: AWG 16-30

Video lines: coaxial cable (1Vpp, 750hm)

Functions: Autopan, Preset, Patrol, Tour (max 3), Autoflip

Maximum number of presets:

- AMERICAN DYNAMICS protocol: 95*
- ERNITEC protocol: 250
- PANASONIC protocol: 250
- PELCO D protocol: 99*
- VIDEOTEC MACRO protocol: 250
- *250 from On Screen Menu only

16-characters string for zone and preset titling

I/O alarm card (option):

- 6 alarm inputs
- 2 relays outputs (2A 30Vac/60Vdc max)

COMMUNICATIONS

Configuration through OSD

Half-duplex serial RS485 interface, full-duplex RS422 and daisy-chain architecture

Firmware updating from console in remote mode (only VIDEOTEC MACRO and PELCO D protocols)

Up to 1023 units, addressable by means of dip-switches

PROTOCOLS

AMERICAN DYNAMICS, ERNITEC, VIDEOTEC MACRO, PANASONIC, PELCO D

AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO are registered trademarks. ULISSE COMPACT may be interfaced with equipment not manufactured by VIDEOTEC. It is possible that the interface protocols have changed or are in a different configuration from earlier tested units. VIDEOTEC recommends a bench test prior to installation. VIDEOTEC will not be liable for any installation costs or lost revenues in the event a compatibility problem will occur.

ENVIRONMENT

Indoor / Outdoor

Operating temperature: -40°C / +60°C (-40°F / +140°F)

Improved surge immunity: up to 2KV line to line, up to 4KV line to earth (Class 4), to achieve a better protection from lightning

CERTIFICATIONS

CE EN60950-1, EN61000-6-3 and EN50130-4

FCC part 15, Class A

IP66 EN60529

UL pending

UL Canadian Safety Standards pending

NEMA 4X

ACCESSORIES

UPTWAS01C Tank 23l (6gal), IN 230Vac washer pump (prearranged for DTWRX board)

UPTWAS02C Tank 23l (6gal), IN 24Vac washer pump (prearranged for DTWRX board)

UPTWAS03C Tank 23l (6gal), IN 120Vac washer pump (prearranged for DTWRX board)

UPTWASA01C Tank 23l (6gal), IN 230Vac washer pump, high delivery up 30m (98ft) (prearranged for DTWRX board)

UPTWASA03C Tank 23l (6gal), IN 120Vac washer pump, high delivery up 30m (98ft) (prearranged for DTWRX board)

BRACKETS AND ADAPTORS

UPTWBA Wall bracket with internal cable channel

UPTWBTA Parapet bracket with internal cable channel

PTCC1 Pole mount adapter for UPTWBA

WCWGC Corner adapter for UPTWBA

RELATED PRODUCTS

ALBERT Unit for the intelligent digital video content analysis

DCJ Keyboard to control matrix, multiplexers and telemetry equipped with three axis joystick

DCT Touch screen keyboard to control matrix, multiplexers, DVRs and telemetry equipped with three axis joystick

PACKAGE

| Code | Unit weight | | Package weight | | Package dimensions (WxHxL) | | Master carton unit |
|-------------|-------------|------|----------------|------|----------------------------|----------------|-----------------------|
| | kg | lb | kg | lb | cm | in | |
| UCT1PBWA00A | 12.5 | 27.6 | 15.5 | 34.2 | 66.0x33.0x57.0 | 26.0x13.0x22.5 | - |

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| ULISSE COMPACT THERMAL AVAILABLE BUILT-IN THERMAL CAMERAS | | | | | | |
|---|--|---------------|---------------------|---------------|--------------------|---------------|
| | Thermal camera 35mm | | Thermal camera 25mm | | Thermal camera 9mm | |
| | PAL | NTSC | PAL | NTSC | PAL | NTSC |
| Detector | Uncooled Vanadium Oxide microbolometer (VOx) | | | | | |
| Resolution | 320x256 | 320x240 | 320x256 | 320x240 | 320x256 | 320x240 |
| Pixel dimensions | 25µm | | | | | |
| Spectral response - Infrared long wave (LWIR) | From 7.5µm to 13.5µm | | | | | |
| Internal shutter (only for sensor compensation) | Video stop < 1sec. | | | | | |
| Digital Detail Enhancement (DDE) | Yes | | Yes | | Yes | |
| Digital zoom | 2x, 4x | | | | | |
| Image frequency | 8.3fps, 25fps | 7.5fps, 30fps | 8.3fps, 25fps | 7.5fps, 30fps | 8.3fps, 25fps | 7.5fps, 30fps |
| Image temperature range | -40°C ÷ +160°C (-40°F ÷ +320°F) | | | | | |
| Horizontal field of view | 13° | | 18° | | 48° | |
| Vertical field of view | 10° | | 14° | | 37° | |
| Focal length | F/1.4 | | F/1.4 | | F/1.25 | |
| ULISSE COMPACT THERMAL AVAILABLE BUILT-IN THERMAL CAMERAS | | | | | | |
| Man (detection / recognition / identification) | 780m / 190m / 97m | | 560m / 140m / 70m | | 205m / 56m / 26m | |
| Car (detection / recognition / identification) | 2150m / 560m / 280m | | 1550m / 400m / 200m | | 590m / 150m / 74m | |

| ULISSE COMPACT THERMAL AVAILABLE ANALOG CAMERAS | | | | | | |
|---|--|-----------------|--|-----------------|--|-------------------|
| | SONY Day/Night 36x | | SONY Day/Night 18x | | SONY Day/Night 10x | |
| | PAL | NTSC | PAL | NTSC | PAL | NTSC |
| Optical zoom | 36x | | 18x | | 10x | |
| Wide Dynamic Range | Yes | | No | | No | |
| High horizontal resolution | Up to 530 TV Lines | | Up to 470 TV Lines | | Up to 530 TV Lines | |
| Day-Night (Auto ICR) | Yes | | | | | |
| Image Sensor | 1/4" EXView HAD CCD | | 1/4" EXview HAD CCD | | 1/3" Super HAD CCD II | |
| Number of effective Pixels | ~ 440000 pixel | ~ 380000 pixel | ~ 440000 pixel | ~ 380000 pixel | ~ 440000 pixel | ~ 380000 pixel |
| Min. night Illumination (ICR ON) (typical) | 0.01 Lux / 1/3s | 0.01 Lux / 1/4s | 0.01 Lux / 1/3s | 0.01 Lux / 1/4s | 0.0004 Lux / 1/3s | 0.0004 Lux / 1/4s |
| Min. day Illumination (ICR OFF) (typical) | 0.1 Lux / 1/3s | 0.1 Lux / 1/4s | 0.1 Lux / 1/3s | 0.1 Lux / 1/4s | 0.015 Lux / 1/3s | 0.015 Lux / 1/4s |
| "Shutter Time" automatic increase to improve the night surveillance | Yes | | | | | |
| S/N ratio | More than 50dB | | | | | |
| AE control | Auto, Manual, Priority mode, Bright, EV compensation, Backlight compensation | | Auto, Shutter priority, Diaphragm priority, Brightness priority and Manual | | Auto, Shutter priority, Diaphragm priority, Brightness priority and Manual | |
| Back Light Compensation | On/Off | | | | | |
| Spherical masking (3D) of Privacy zones with automatic upgrade | Yes | | | | | |
| 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 | | Up to 14 colours available for different masking types | | Up to 15 different masking types: 14 colour types or mosaic | |
| Focusing System | Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual | | | | | |
| "Smart" Lens Control | SONY Modular Automatic Lens Reset Technology | | | | | |
| Optical Zoom | 36x, f=3.4 (wide) to 122.4mm (tele) / F1.6 to F4.5 | | 18x, f=4.1 (wide) to 78.3mm (tele) / F1.4 to F3.0 | | 10x, f=5.1 (wide) to 51.0mm (tele) / F1.8 to F2.1 | |
| Digital Zoom | 12x (432x with optical zoom) | | 12x (216x with optical zoom) | | 12x (120x with optical zoom) | |
| Angle of View (A) | 57.8 degrees (wide) to 1.7 degrees (tele) | | 48 degrees (wide) to 2.8 degrees (tele) | | 52 degrees (wide) to 5.4 degrees (tele) | |
| Min. Object Distance | 320mm (wide) to 1500mm (tele) | | 290mm (wide) to 800mm (tele) | | 15mm (wide) to 800mm (tele) | |
| Electronic Shutter Speed | 1/1 ÷ 1/100000s | | | | | |

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