

# ULISSE EVO with DELUX technology

PTZ CAMERA WITH HIGH PERFORMANCE AND EXTREME RELIABILITY



IP66  
IP67  
IP68

TYPE 4X  
TYPE 6P

IK10



- Designed to resist and last
- Impeccable quality image
- Integrated video analysis available
- Unbeatable solution for outdoor applications

VIDEOTEC  
analytics

ONVIF® | Q S T

delux  
technology



## DESIGNED TO RESIST AND LAST

The PTZ ULISSE EVO video camera is ideal as a video surveillance solution for outdoor applications in urban centres, critical infrastructures, traffic and railways. It is designed to guarantee total reliability and continuous operations in the most challenging outdoor environments. It is ultra-resistant to corrosion and can withstand a wide temperature range (from -40°C to +65°C). The extra-sturdy structure is guaranteed by IK10, IP66/IP67/IP68, NEMA TYPE 4X and TYPE 6P protection ratings. Exceptional wind resistance up to 230km/h with PTZ moving at maximum speed.

ULISSE EVO has obtained Lloyd's Register Marine Type Approval for the maritime and shipping sector and complies with the standard for railway applications.

The modern, linear design of ULISSE EVO combines maximum strength and operational reliability with greatly reduced weight. This means easy and quick assembly and therefore lower installation costs and zero maintenance. It can even be mounted upside down, in the typical speed domes position. The supports can be supplied with quick-fit connectors for Ethernet/PoE, power supply and I/O. This means the unit can be replaced quickly and easily in case of on-site intervention.

## ADVANCED TECHNOLOGY AND EXCELLENT IMAGE QUALITY

The IP Super low-light FullHD 1080p video camera and Delux technology offer unparalleled brightness and provide video footage with clear details and bright colours both during the day and at night. The powerful 30x optic zoom and the 60fps film speed allow you to accurately identify the details of an event, including dynamic and rapidly changing scenes.

This PTZ camera provides 3 Full HD streams with H.264/Avc digital compression. It can be connected to an Ethernet network easily and can send video streams to digital monitors and storage systems. It complies with ONVIF, Profile T, Profile S and Profile Q protocols.

## VIDEOTEC ANALYTICS

The ULISSE EVO video camera with VIDEOTEC ANALYTICS integrates robust algorithms for accurate detection with PTZ and precise, fluid auto-tracking even in the harshest climate conditions, ensuring that the operator has full situation awareness at all times. The detection algorithm, in particular, is especially reliable even in rain and snow, video camera vibration, low contrast, unexpected changes in light or shadow and in the presence of small animals and insects.

Similarly, the auto-tracking feature keeps the target in the centre of the frame by panning and tilting fluidly and controlling the zoom function. This occurs even if the target moves and rapidly changes direction or if the scene is affected by poor lighting, such as low contrast or continual changes in the light.

Videotec Analytics provides: maximum efficiency in intrusion detection, reduction of costs and human-induced errors, cuts in storage costs, reduction in the time required to monitor and detect unusual events from recordings, plus a drastic drop in false alarms.

## GEOMOVE&TRACK FUNCTION

The GeoMove&Track function offered by ULISSE EVO uses two connected cameras that communicate with each other through intelligent language, meaning advanced actions can be carried out in even the most basic surveillance systems.

GeoMove&Track is available on ULISSE EVO PTZs that have VIDEOTEC ANALYTICS and monitor a certain area. When a target is sighted, the camera sends the geo-coordinates of the target to a second Videotec PTZ that uses them to frame the target. If this second PTZ also has analytics functionality, it will in turn activate detection and autotracking.

The GeoMove&Track function can interface with third-party software that gives an objects geo-coordinates, such as Video Management Software (VMS) for traditional video surveillance where a target needs to be shown on a map, or Vessel Tracking Service (VTS) for navigation control services (also combined with radar control systems).

Thanks to GeoMove&Track, the Videotec fixed and PTZ combination offers the advantage of having a complete positioning and tracking solution - all guaranteed by Videotec.

## 100% MADE IN VIDEOTEC

Videotec guarantees the excellent strength and reliability of the entire "all-in-one product" range with hundreds of verification tests. The mechanics, electronics, positioning, networking, software video analysis algorithms and firmware are designed by Videotec's in-house end-to-end team which, therefore, possesses 100% of the know-how of all the network products offered.

At the heart of Videotec's product development is the concept of cyber-sustainability. To help customers protect their video surveillance systems and keep them secure, Videotec provides constant updates, training and support throughout the lifecycle of its products, regardless of how old the device is or whether it is still for sale.

Thanks to digitally signed firmware, password-restricted access, access control, centralised management of certificates and compliance with ONVIF Security Service specifications, Videotec guarantees that all its IP products will have the highest level of security during data transfer and device access.

ULISSE EVO offers the Videotec guarantee of a reliable, cyber-safe, future-proof platform that is easily integrated with third-party products. Videotec's new video analysis functions, combined with ULISSE EVO advanced technology and image quality, ensure the very best level of protection for people, goods and property.

## TECHNICAL DATA

### GENERAL

Easy installation thanks to the self-centring connector  
Zero backlash  
Quick configuration and setup  
Dynamic positioning control system  
Functions: Preset, Preset Tour (Patrol), Autoflip, Autopan via Preset Tour  
Maximum number of presets: 250

### MECHANICAL

Constructed from aluminium and tecnopolymer  
Epoxy-polyester powder painted, standard colours grey-white (RAL9002) or black (RAL9005)  
Horizontal rotation: 360°, continuous rotation  
Vertical rotation: from -90° up to +90° (with ceiling installation, from -40° up to +90°)  
Horizontal speed (variable): from 0.1°/s up to 250°/s  
Tilt speed (variable): from 0.1°/s up to 250°/s  
Accuracy of preset positions: 0.05°  
Cable glands: 2xM16 + 1xM20 + special gasket for pre-wired Ethernet cables  
Unit weight: 7.1kg (15.6lb) (7.4kg (16.3lb) with LED illuminator)  
Glass window

- Thick: 6mm (0.24in)

### ELECTRICAL

Supply voltage/Current consumption:

- 24Vac  $\pm 20\%$ , 5A, 50/60Hz
- 24Vdc  $\pm 10\%$ , 5A
- PoE 90W (only with OHEP90INJ or OHEP90INJO accessories)

ECO-MODE function for energy saving: 21W, P&T static

Power consumption:

- 27W, P&T static, heating switched off
- 27W, P&T in motion, heating switched off
- 57W, peak at start-up, heating on and de-icing function

Power consumption with illuminator on:

- 40W, P&T static, heating switched off
- 40W, P&T in motion, heating switched off
- 70W, peak at start-up, heating on and de-icing function

Power supply cables section: from 0.75mm<sup>2</sup> (18AWG) up to 2.5mm<sup>2</sup> (13AWG)

Cables signal section: from 0.14mm<sup>2</sup> (26AWG) up to 1mm<sup>2</sup> (17AWG)

Multipolar cable sheath diameter:

- Cable glands M16: from 4.5mm (0.2in) up to 10mm (0.4in)
- Cable glands M20: from 8mm (0.3in) up to 13mm (0.5in)

Alarm inputs: 2 (auto-powered from 12Vdc up to 18Vdc)

Relay outputs: 2 (1A, 30Vac/30Vdc max)

## NETWORK

Ethernet connection: 100 Base-TX

Connector: RJ45

## CYBERSECURITY

Digitally signed firmware

Password restricted access (HTTP digest)

Support of various user access levels

Control of accesses IEEE 802.1X

HTTPS cryptography using TLS1.0, TLS1.1, TLS1.2 and TLS1.3

Centralised certificate management

Complies with ONVIF Security Service specifications

## VIDEO ANALYTICS

Ultra-robust detection algorithms and auto-tracking, specifically for outdoor perimeter control.

Targets Classification: People, vehicles, generic objects

Programmable rules for video analysis, VIDEOTEC ANALYTICS (it is possible to rapidly configure up to ten rules for every preset using an intuitive control management interface)

- Line crossing: the target triggers an alarm if it crosses the line in one or both directions
- Entering/leaving area: the target triggers an alarm if it leaves or enters the configured area
- Appearing in area: the target triggers an alarm if it appears inside the configured area
- Loitering: the target triggers an alarm if it stays inside the configured area over the set time

Detection Mask: disables the detection activity in a portion of the image to prevent false alarms

Video Tampering Detection: a specific ONVIF alarm is triggered if the video camera view is obstructed (e.g. spray)

## VIDEO

Video encoder

- Communication protocol: ONVIF, Profile Q, Profile S and Profile T
- Device configuration: TCP/IPv4-IPv6, UDP/IPv4-IPv6, HTTP, HTTPS, NTP, DHCP, WS-DISCOVERY, DSCP, IGMP (Multicast), SOAP, DNS
- Streaming: RTSP, RTCP, RTP/IPv4-IPv6, HTTP, Multicast
- Video compression: H.264/AVC, MJPEG, MPEG4, snapshot JPEG
- 3 independent video streams Full HD
- Image resolution: from 320x180pixel up to 1920x1080pixel in 8 steps
- Selectable frame rate from 1 to 60 images per second (fps)
- Web Server
- Directional OSD (maximum 4 settable areas)
- Motion Detection
- Video analytics: VIDEOTEC ANALYTICS (optional)
- QoS: Differentiated DSCPs for streaming and device management
- SNMP and NTCIP protocols

## CAMERAS

### Day/Night Full HD 30x DELUX

Resolution: Full HD 1080p (1920x1080)

Image Sensor: 1/2.8" Exmor™ R CMOS sensor

Effective Pixels: approx. 2.38 Megapixels

Minimum Illumination:

- Colour: 0.006lx (F1.6, 30 IRE)
- B/W: 0.0006lx (F1.6, 30 IRE)

Focal length: from 4.5mm (wide) up to 135mm (tele)

Zoom: 30x (480x with digital zoom)

Iris: from F1.6 up to F9.6 (Auto, Manual)

Horizontal Viewing Angle: from 61.6° (wide end) up to 2.50° (tele end)

Vertical Viewing Angle: from 37.07° (wide end) up to 1.44° (tele end)

Shutter speed: from 1/1s up to 1/10000s (Auto, Manual)

White balance: Auto, Manual

Gain: from 0dB up to 100dB (Auto, Manual)

Wide Dynamic Range: 120dB

Focus System: Auto, Manual, Trigger

Picture Effects: E-flip, Color enhancement

Noise removal: 2D (3 levels), 3D (3 levels)

Exposure Control: Auto, Manual, Priority (Iris Priority, Shutter Priority), Brightness, Custom

De-fog: On/Off

Privacy zones masking (maximum 8 settable masks)

Indoor Flicker Reduction

Auto Slowshutter: Off, On (from 1/30s up to 1/1s)

Exposure compensation: Off, On (from level 0 up to level 14)

Sharpness: from level 0 up to level 3

## ILLUMINATORS

### LED illuminator

Wavelength: 850nm, 940nm (UElxxx only), white light

UElxxx

- Wide beam: 40° (horizontal), 16° (vertical)
- Spot beam: 14° (horizontal), 14° (vertical)

UElxxxP

- Wide beam: 13° (horizontal), 13° (vertical)
- Spot beam: 13° (horizontal), 13° (vertical)

Wide beam activation: based on the scene brightness, from alarm input or manually

Spot beam activation (can be activated only when the wide beam is active): can be activated on preset, based on the zoom factor or with the wide beam

Automatic and remote switching on

No calibration required for light beam alignment with the camera

The illuminator does not slow down the P&T's rotation speed

Automatic recognition of the type of illuminator installed

## ENVIRONMENT

For indoors and outdoors installation

Operating temperature

- Continuous functioning: from -40°C (-40°F) up to +65°C (149°F) (+50°C (122°F) for versions painted black)
- Temperature test complies with NEMA-TS 2-2003 (R2008) par. 2.1.5.1, test profile fig. 2-1 (from -34°C (-29.2°F) to +74°C (165.2°F)) (not valid for versions with integrated video analysis, VIDEOTEC ANALYTICS)
- De-icing function intervention: from -40°C (-40°F) up to -10°C (14°F)

Wind resistance

- PTZ static: 230km/h (143mph) max.
- PTZ in motion at the maximum speed with LED illuminator: 230km/h (143mph) max.

Relative humidity: from 5% up to 95%

## CERTIFICATIONS

Electrical safety (CE): EN60950-1, IEC60950-1, EN62368-1, IEC62368-1

Electromagnetic compatibility (CE): EN61000-6-4, EN50130-4, EN55032 (Class A)

Outdoor installation (CE): EN60950-22, IEC60950-22

Photobiological safety (CE): EN62471, IEC62471

IP protection degree (EN60529): IP66, IP67, IP68

Vibration test: EN50130-5, EN60068-2-6

Salty fog resistance: EN50130-5, EN60068-2-52

IK protection degree: IK10 (except glass window)

UL certification (UL60950-1, CAN/CSA C22.2 No. 60950-1-07, UL62368-1 CAN/CSA C22.2 No. 62368-1-14): cULus Listed

Electromagnetic compatibility (North America): FCC part 15 (Class A), ICES-003 (Class A)

Level of protection Type (UL50E): 4X, 6P

EAC certification

Restriction of Hazardous Substances (RoHS), Directive 2011/65/EU

Waste Electrical and Electronic Equipment (WEEE), Directive 2012/19/EU

KC certification (UE21A000J, UE21F000J)

## CERTIFICATIONS - RAILWAY APPLICATIONS

Compliance to railway application standard: EN50121-4 (the product requires the filter accessory SURGEPR)

## CERTIFICATIONS - MARINE APPLICATIONS

Lloyd's Register Marine Type Approval certification (the product requires the filter accessory FM1010):

- Test Specification Number 1 (ENV1, ENV2, ENV3, ENV5)

Electromagnetic compatibility: EN60945

Salty fog resistance: EN60068-2-52

Tested at 70°C (158°F) for 16 hours in compliance with EN60068-2-2

## ACCESSORIES

COMB100A	Communication box in polycarbonate, IN from 220Vac up to 230Vac, OUT 24Vac
COMB200A	Communication box in polycarbonate, IN 24Vac, OUT 24Vac
COMB300A	Communication box in polycarbonate, IN from 120Vac up to 127Vac, OUT 24Vac
UEI8AA	IR illuminator 850nm with uniform lighting for short and long distances up to 175m (574ft) for ULISSE EVO grey-white colour (RAL9002)
UEI8AAP	IR illuminator 850nm for long distance lighting up to 270m (885ft) for ULISSE EVO grey-white colour (RAL9002)
UEI9AA	IR illuminator 940nm with uniform lighting for short and long distances up to 100m (328ft) for ULISSE EVO grey-white colour (RAL9002)
UEIWAA	White light illuminator with uniform lighting for short and long distances up to 175m (574ft) for ULISSE EVO grey-white colour (RAL9002)
UEIWAAP	White light illuminator for long distance lighting up to 270m (885ft) for ULISSE EVO grey-white colour (RAL9002)
UEI8FA	IR illuminator 850nm with uniform lighting for short and long distances up to 175m (574ft) for ULISSE EVO black colour (RAL9005)
UEI8FAP	IR illuminator 850nm for long distance lighting up to 270m (885ft) for ULISSE EVO black colour (RAL9005)
UEI9FA	IR illuminator 940nm with uniform lighting for short and long distances up to 100m (328ft) for ULISSE EVO black colour (RAL9005)
UEIWFA	White light illuminator with uniform lighting for short and long distances up to 175m (574ft) for ULISSE EVO black colour (RAL9005)
UEIWFAP	White light illuminator for long distance lighting up to 270m (885ft) for ULISSE EVO black colour (RAL9005)
OHEP90INJ	Power Injector PoE (90W), 1 channel, for indoor installations
OHEP90INJO	Power Injector PoE (90W), 1 channel, for outdoor installations
SURGEPR	Lightning surge protection device
UPTIRPS100N	External power supply for ULISSE series, IN 100Vac, in weatherproof box
UPTIRPS120UL	External power supply for ULISSE series, IN 120Vac, in weatherproof box
UPTIRPS230N	External power supply for ULISSE series, IN 230Vac, in weatherproof box
FM1010	EMC filter for Marine certification
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, IN 230Vac, delivery head up to 30m (98ft), with 20m (66ft) antistatic water delivery pipe
WASN2V10L20M00	Tank 10l (2.6gal) with integrated manual pump, controlled by solenoid valve, IN 24Vac, delivery head up to 30m (98ft), with 20m (66ft) antistatic water delivery pipe
WASN3V10L20M00	Tank 10l (2.6gal) with integrated manual pump, controlled by solenoid valve, IN 120Vac, delivery head up to 30m (98ft), with 20m (66ft) antistatic water delivery pipe

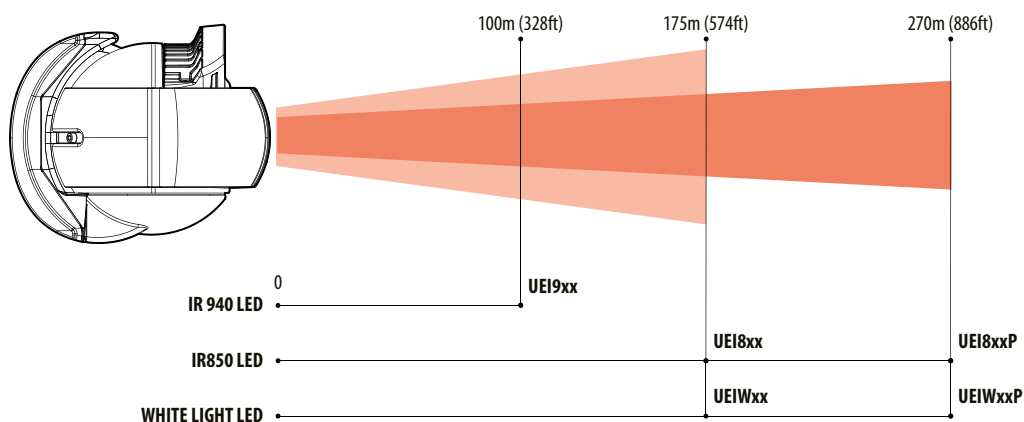
## BRACKETS AND ADAPTORS

UEBP0AA	Parapet bracket with internal cable channel for ULISSE EVO, grey-white (RAL9002)
UEBP4AA	Parapet bracket with quick connectors RJ45 (Ethernet and PoE) + 4 poles with screw terminal (power supply and I/O) for ULISSE EVO grey-white (RAL9002)
UEBP7AA	Parapet bracket with quick connectors RJ45 (Ethernet and PoE) + 7 poles to weld (power supply and I/O) for ULISSE EVO, grey-white (RAL9002)
UEBP0FA	Parapet bracket with internal cable channel for ULISSE EVO, black colour (RAL9005)
UEBP4FA	Parapet bracket with quick connectors RJ45 (Ethernet and PoE) + 4 poles with screw terminal (power supply and I/O) for ULISSE EVO, black colour (RAL9005)

UEBP7FA	Parapet bracket with quick connectors RJ45 (Ethernet and PoE) + 7 poles to weld (power supply and I/O) for ULISSE EVO, black colour (RAL9005)
UEBWAA	Wall bracket for ULISSE EVO, grey-white (RAL9002)
UEBWFA	Wall bracket for ULISSE EVO, black colour (RAL9005)
UEAP	Pole adaptor in stainless steel AISI 316L
UEAC	Corner adaptor in stainless steel AISI 316L
UEAW	Counter-plate in stainless steel AISI 316L

## PACKAGE

Model Number	Weight	Dimensions (WxHxL)	Master carton
UE21A000A	9.2kg (20.3lb)	27x30x50cm (10.6x11.8x19.6in)	-



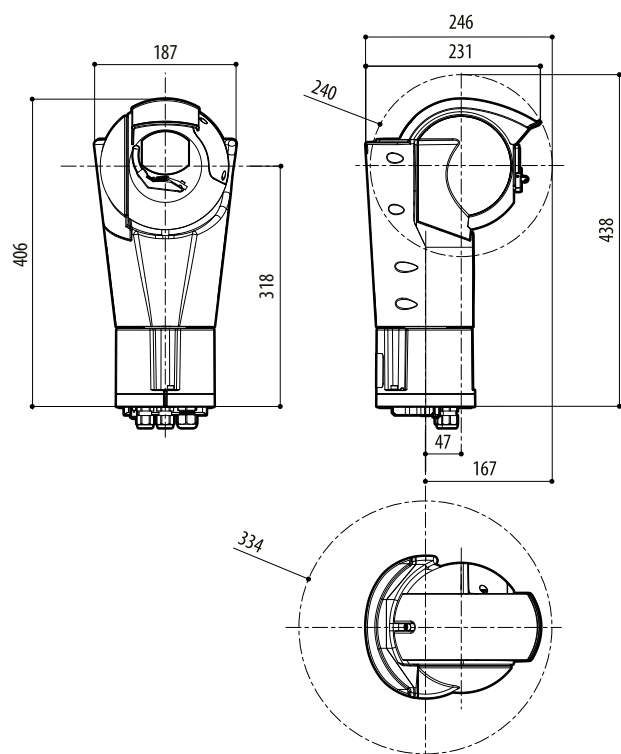
*The distances and the performance depend on the environmental conditions.*

## ULISSE EVO WITH DELUX TECHNOLOGY - CONFIGURATION OPTIONS

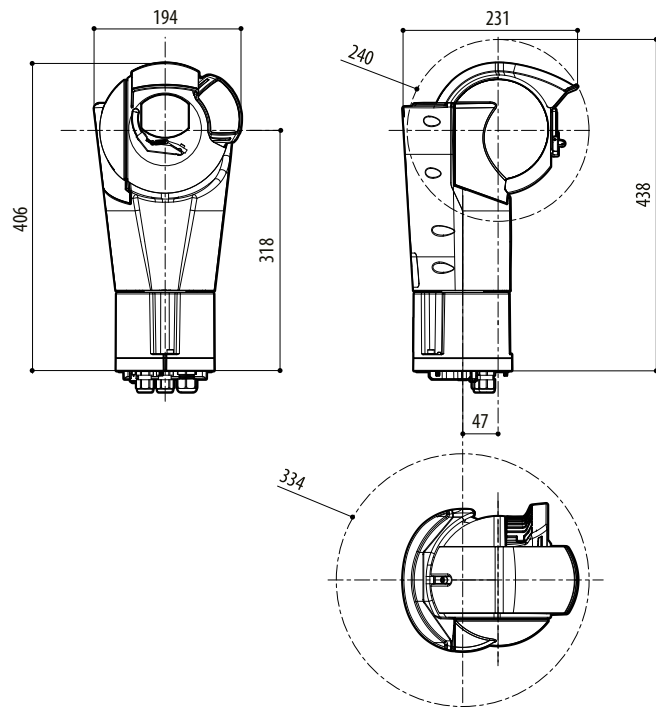
	Voltage	Camera	Colour	Video analytics	Revision
<b>UE</b>	<b>2</b> 24Vac, 24Vdc, PoE 90W	<b>1</b> Super low-light Day/Night camera, FULL HD 1080p, 30x, with DELUX technology	<b>A</b> Grey-white (RAL9002)	<b>000</b> Without integrated video analytics (without VIDEOTEC ANALYTICS)	<b>A</b> Complies with ONVIF, Profile Q, Profile S and Profile T
			<b>F</b> Black (RAL9005)	<b>V00</b> With integrated video analytics (VIDEOTEC ANALYTICS)	<b>J</b> Complies with ONVIF, Profile S and Profile T

## TECHNICAL DRAWINGS

The indicated measurements are expressed in millimetres.



ULISSE EVO



ULISSE EVO WITH LED ILLUMINATOR