# **NVX** with DELUX technology and VIDEOTEC ANALYTICS

# STAINLESS STEEL FULL HD CAMERA WITH INTEGRATED VIDEO ANALYSIS









- Exceptional corrosion resistance
- Integrated video analysis VIDEOTEC ANALYTICS
- Video recordings with incredibly bright day and night colours
- Quick connectors and modular integrated support







#### HIGH STRENGTH AND VAST APPLICATION RANGE

The NVX camera is entirely made of AISI 316L stainless steel and stands out for its exceptional resistance to corrosion. NVX was designed to guarantee efficient video surveillance in offshore/onshore marine environments, but also in applications for the rail and transport sectors.

The high anti-corrosion properties of its AlSI316L stainless steel structure combined with the vast temperature range and the IP66/IP67/IP68 degrees of protection guarantee complete protection against bad weather and temporary immersion in water. In addition, the IP69 certification allows camera cleaning with high pressure water jets at high temperature.

Installation of NVX even in tight spaces is facilitated by the quick connectors and the practical, modular support supplied as standard for assembly on walls, ceilings or railings. NVX versions are available with integrated wiper or with a polycarbonate window.

#### **HIGH QUALITY IMAGE**

NVX is an IP Full HD super low-light Day/Night 1080p, zoom 30x, 60fps camera, which integrates DELUX imaging and encoding technology by Videotec for video recordings with incredibly bright colours by day and night.

In particular, thanks to the camera's increased light sensitivity, the DELUX technology can obtain bright images with well-defined colours in very low light conditions — even typical night-time conditions to 0.006 lux (0.0006 lux in black and white).

Up to a maximum of 3 simultaneous and independent video streams can be transmitted via network in H.264/AVC, MPEG4, MJPEG or JPEG format

# **VIDEOTEC ANALYTICS**

The NVX camera with VIDEOTEC ANALYTICS technology integrates very robust algorithms for accurate detection even in the most adverse weather conditions, ensuring the operator complete situational awareness at any time. The detection algorithm is particularly reliable even with rain, snow, vibrations of the camera, low contrast, sudden changes in light or shade and in the presence of small animals or insects.

Based on the rules set by the user, an alarm is generated if an object enters, exits, appears or stays more than necessary inside an area. Any breach of these rules will activate the alarm and the other programmed actions. Up to ten rules per preset can be quickly configured.

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 AND GEOMOVE&TRACK FUNCTIONS**

The new NVX video cameras can be geo-localized on the maps to support the GeoMove and GeoMove&Track features, in combination with one or more Videotec PTZs.

The GeoMove feature is very useful in perimeter surveillance systems and for port traffic control because it lets you capture any target through geographic coordinates, even in critical visibility or offshore conditions.

The GeoMove feature can typically be activated using a NVX camera with Videotec Analytics on board, or through third-party software such as Video Management Software (VMS), which provide the geographic coordinates of a target and use them to guide the Videotec PTZ cameras to capture the target. The coordinates can also be sent in the same way using Vessel Tracking Services (VTS - navigation control services) or using radar control systems.

Furthermore, PTZ video cameras with Videotec Analytics on board can activate the GeoMove&Track feature. In this case, the Videotec PTZ camera that receives the coordinates of the target, thanks to the video analytics, can also recognize and autonomously follow the geo-localized target.

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 extreme robustness and reliability of all its "all-in-one products" with hundreds of validation tests. Mechanics, electronics, positioning, networking, software and firmware are developed end-to-end by the internal Videotec team, with total 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.

NVX therefore offers the Videotec warranty of being a reliable platform, that is cybersafe, future-proof and easily integrated with third party products. The new functions of Videotec video analysis, combined with the high technology and quality of the NVX imagery ensure maximum protection for people, assets and property.

# TECHNICAL DATA

#### **GENERAL**

Simple installation thanks to quick connectors

Quick configuration and setup

#### MECHANICAL

AISI 316L stainless steel construction

Slot for safety chain

Unit weight:

- 4.9kg (10.8lb) (fastening support included)
- 4kg (8.8lb) (fastening support not included)

#### **HOUSING'S WINDOW**

Extra clear glass window

• Thick: 3mm (0.1in)

#### **ELECTRICAL**

Supply voltage/Current consumption:

- 24Vac, 1.32A, 50/60Hz
- 24Vdc, 0.9A

Power consumption:

• 25.2W

#### 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**

Highly robust detection algorithms, 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

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
- Motion Detection
- Video analytics: VIDEOTEC ANALYTICS
- QoS: Differentiated DSCPs for streaming and device management
- SNMP and NTCIP protocols

# I/O INTERFACE

I/O alarm board (version with wiper)

- Input for remote reset: 1
- Relay outputs: 1+1 (1 relay reserved for washer pump and one configurable, 1A, 30Vac/60Vdc max)

### **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 61.60° (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 OdB up to 100dB (Auto, Manual)

Wide Dynamic Range: 120dB

Focus System: Auto, Manual, Trigger

Picture Effects: E-flip, Colour enhancement

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

 ${\bf Exposure\ Control:\ Auto,\ Manual,\ Priority\ (Iris\ Priority,\ Shutter\ Priority),\ Brightness,\ Custom}$ 

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

#### **ENVIRONMENT**

For indoors and outdoors installation

Operating temperature: from -40°C (-40°F) up to +50°C (122°F)

Surge immunity: up to 1kV line to line, up to 2kV line to earth (Class 3)

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), FCC Part

15 (Class A), ICES003 (Class A)

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

IP protection degree (EN60529): IP66, IP67, IP68 (2h30min, 2m (6.56ft)), IP69

**EAC** certification

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		
IRHXXHXA	GEKO IRH illuminator, High Power		
IRHxxLxA	GEKO IRH illuminator, Low Power		
NVXTUB	Dust protection frontal shield		
NVXIRBKT	Illuminator fastening support (GEKO IRH)		
WASPT0V5L5M00	Water tank 5I (1.3gal), pump with delivery up to 5m (16ft), IN 230Vac-24Vac-120Vac		
WASPTOV23L5M00	Water tank 23I (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 23I (6gal), pump with delivery up to 30m (98ft) with water floating, IN 230Vac		

Water tank 23I (6gal), pump with delivery up to 30m (98ft) with water floating, IN 120Vac
Tank 10I (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
Tank 10I (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
Tank 10I (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

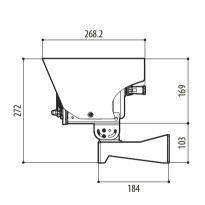
BRACKETS AND ADAPTORS			
UEAP	Pole adaptor in stainless steel AISI 316L		
UEAC	Corner adaptor in stainless steel AISI 316L		
UEAW	Counter-plate in stainless steel AISI 316L		

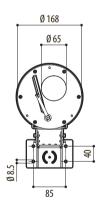
PACKAGE			
Model Number	Weight	Dimensions (WxHxL)	Master carton
NVX	6.2kg (13.7lb)	36x35x23cm (14x14x9in)	-

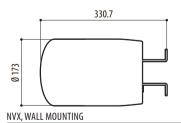
NVX WITH	NVX WITH VIDEOTEC ANALYTICS- CONFIGURATION OPTIONS								
	Voltage	Camera	Versions	Video analytics	Revision				
NVX	2 24Vac/24Vdc	10 Super low-light Day/ Night camera, FULL HD 1080p, 30x, with DELUX technology	W With wiper/Glass window	01 With integrated video analytics (VIDEOTEC ANALYTICS)	A Complies with ONVIF, Profile Q, Profile S and Profile T				
			S Without wiper/Glass window		J Complies with ONVIF, Profile S and Profile T				

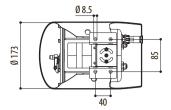
# **TECHNICAL DRAWINGS**

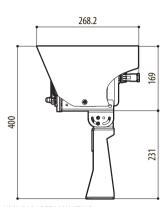
The indicated measurements are expressed in millimetres.





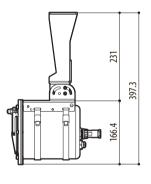




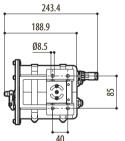




NVX, PARAPET MOUNTING







NVX, CEILING MOUNTING