NXPTZ SERIES2 with SONY FCB-EV7520 camera

NEW GENERATION OF FULL HD PTZ CAMERAS FOR MARITIME AND INDUSTRIAL APPLICATIONS

IP66/IP67
IP68/IP69

TYPE
4X

IP

- **Stainless steel network PTZ camera**
- **Maximum resistance in corrosive environments**
- **Integrated video analysis available, VIDEOTEC ANALYTICS**
- **Junction box with integrated SFP slot to allow fiber optic connection**

VIDEO TEC analytics

Onvif® | QST

SONY

MAXIMUM RESISTANCE IN THE MOST CRITICAL ENVIRONMENTS

The new generation NXPTZ SERIES2 with SONY FCB-EV7520 camera offers a high level of protection in security applications in highly corrosive environments, such as industrial and marine offshore/onshore areas.

The NXPTZ SERIES2 is resistant to rust and corrosion and does not require maintenance thanks to the absolute precision of the construction process and the solid AISI 316L stainless steel construction with micro-shot and electropolished surfaces.

CERTIFIED QUALITY

A huge number of tests of all types are carried out on products so that they comply with the strict requirements of the quality standards. The results leave no doubt about the exceptional robustness, undeniable reliability and unrivalled performance of Videotec's products.

IP66/IP67/IP68 certification guarantees complete protection against weather and water immersion. In addition, the IP69 certification means the product can be cleaned with high pressure and high temperature water.

The wiper is supplied as standard, for optimum cleaning of the front glass.

NXPTZ SERIES2 operates at maximum efficiency between -40°C and +65°C.

SONY FCB-EV7520 CAMERA

NXPTZ SERIES2 with the SONY FCB-EV7520 camera has a 30x optical zoom and a 1/2.8" Exmor R™ CMOS sensor with Full HD 1080/60p resolution that produces the highest image quality, even when surveilling moving objects or in poor lighting conditions.

The camera's high sensitivity means you get colour video with a minimum illumination of just 0.0013lx (0.0008lx in black and white). This guarantees surveillance coverage even when lighting at the scene is very poor.

The advanced SONY technology brings Wide Dynamic Range and a configurable High Light Compensation that allows optimal management of areas subject to vibrations and contrasting light and dark conditions. This is a useful requisite in all applications whose camera can be exposed to wind or mechanical vibrations, especially if installed on unstable structures such as a bridge or a pole (for example monitoring of traffic, ports, bridges, etc.).

You can set up to 24 dynamic privacy zone masks. These masks change size based on the pan/tilt/zoom position so objects that shouldn't be seen remain hidden.

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

INSTALLATION FLEXIBILITY

Compared to the previous generation, the SERIES2 range cameras have the possibility of easily connecting the PTZ using fibre optic thanks to the slot of the SFP module installed directly at the bottom of the unit and on installation of the specific accessory NXPTZSFP which provides a cable input on the product dedicated to fibre optic.

There are numerous accessories available including a washing system, and wall, parapet, corner and pole supports that mean installation is extremely flexible.

As well as this, the compact design means it can be installed in the tightest spaces, while the unit's reduced weight makes assembly simple.

VIDEOTEC ANALYTICS

The NXPTZ SERIES2 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 Analitycs 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 NXPTZ SERIES2 PTZ video cameras can be geo-localized on the maps to support the GeoMove and GeoMove&Track features..

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 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.

The GeoMove&Track function offers the benefit of having a complete, turn-key positioning and tracking solution, guaranteed by Videotec.

100% MADE IN VIDEOTEC

SERIES2 offers an integrated certified all-in-one professional solution. Since everything from mechanics to electronics, positioning and networking, software and firmware are all proudly developed end-to-end by Videotec's internal teams, as is the case for all the company's products, these PTZs come with the Videotec guarantee of being reliable, cyber-safe, future-proof and easily integrated with third-party products.

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.

In the SERIES2, Videotec has expanded the list of compatible software, but has not changed the tested and proven software functions and protocols already found in the NXPTZ series.

TECHNICAL DATA

GENERAL

AISI 316L stainless steel construction

External surfaces micro-shot peened and electro-polished

Dynamic positioning control system

Maximum number of presets: 250

MECHANICAL

Zero backlash

Pre-wired multipolar cable (3m (9.8ft), different lengths are available on request)

Horizontal rotation: 360°, continuous rotation

Vertical rotation: from -90° up to +90°

Horizontal speed (variable): from 0.1°/s up to 100°/s

Tilt speed (variable): from 0.1°/s up to 100°/s

Accuracy of preset positions: 0.02°

Integrated wiper

Unit weight: 22kg (44lb)

HOUSING'S WINDOW

Extra clear glass window
- Thick: 5mm (0.2in)

ELECTRICAL

Supply voltage/Current consumption:
- 230Vac ±10%, 0.5A max, 50/60Hz
- 120Vac ±10%, 1A max, 50/60Hz
- 24Vac ±10%, 5A max, 50/60Hz

Power consumption:
- 120W max
- 30W, P&T static, heating switched off

NETWORK

RJ45 port
- Ethernet connection: 10BASE-T/100BASE-T

Slot SFP (SMALL FORM FACTOR PLUGGABLE)
- Ethernet connection:100BASE-FX
- Supply voltage: 3.3V
- Standard: MSA compliant

The SFP module (not supplied by VIDEOTEC) must meet the following requirements:
- Laser: Class 1, complies with EN60825-1
- Certification: UL/IEC 60950-1 or UL/IEC 62368-1

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

I/O INTERFACE

I/O alarm board:

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

Input for remote reset: 1

CAMERAS

SONY FCB-EV7520 Day/Night Full HD 30x

Resolution: Full HD 1080p (1920x1080)

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

Effective Pixels: approx. 2.13 Megapixels

Minimum Illumination:

- Colour: 0.0013lx (50 IRE, High sensitivity on)
- B/W: 0.0008lx (30 IRE, High sensitivity on)

Focal length: from 4.3mm (wide) up to 129mm (tele)

Zoom: 30x (360x with digital zoom)

Iris: from F1.6 up to F14 (Auto, Manual)

Horizontal Viewing Angle: from 63.7° (wide end) up to 2.3° (tele end)

Vertical Viewing Angle: from 38.5° (wide end) up to 1.3° (tele end)

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

White balance: Auto, Auto Tracing, Indoor, Outdoor, Manual, Outdoor Auto, Sodium Lamp (Fix/Auto/Outdoor Auto)

Gain: from 0dB up to 50.0dB (Auto, Manual)

Wide Dynamic Range: 120dB

Focus System: Auto (PTZ Trigger, Full Auto), Manual

Picture Effects: E-flip

Noise removal (2D, 3D): Off, On (from level 1 up to level 5)

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

De-fog: Off, Low, Mid, High

Dynamic masking of privacy zones: maximum 24 masks settable, maximum 8 simultaneously displayable

Indoor Flicker Reduction

Gain Limit: from10.7dB up to 50dB

High sensitivity: On/Off

Backlight Compensation: On/Off

Auto Slowshutter: On/Off

Exposure compensation: Off, On (from -10.5dB up to +10.5dB)

Sharpness: from level 0 up to level 15

High Light Compensation (HLC): Off, Low, Mid, High, Masking Level (Off, On, from level 1 up to level 15)

Digital image stabilization: On/Off

ENVIRONMENT

For indoors and outdoors installation

Operating temperature

- Continuous working: from -40°C (-40°F) up to +65°C (149°F)
- 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 VIDEOTEC ANALYTICS)
- De-icing function intervention (cold start): from -40°C (-40°F) up to -10°C (14°F)

Relative humidity: from 5% up to 95%

CERTIFICATIONS

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

Electromagnetic compatibility (CE): EN50130-4, EN55032 (Class A), EN61000-6-4, EN61000-3-2, EN61000-3-3

Outdoor installation (CE): EN60950-22, ICE60950-22

IP protection degree (EN/IEC60529): IP66, IP67, IP68, IP69

UL certification (UL60950-1, CAN/CSA C22.2 No. 60950-1-07, UL62368-1, CAN/CSA C22.2 No. 62368-1-14): cULus Listed (only for 24Vac version)

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

RoHS (CE): EN IEC 63000

Level of protection Type (UL50E): 4X (only for 24Vac version)

EAC certification

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

NDAA-compliant

CERTIFICATIONS - MARINE APPLICATIONS

Lloyd's Register Marine Type Approval certification (the 24Vac and 120Vac versions require a 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
FM1010	EMC filter for Marine certification
NXPTZSFP	Adaptor for connection of fiber optics
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
WASNX1V10L20M00	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
WASNX2V10L20M00	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
WASNX3V10L20M00	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
CMSN2200	Unarmoured black cable, available by the metre (minimun order 10m (32.8ft)): 2 Ethernet cables, 3 power supply wires, 2 coaxial video cable, 15 wires for alarms, relays and telemetry
CMSB2200	Unarmoured blue cable, available by the metre (minimum order 10m (32.8ft)): 2 Ethernet cables, 3 power supply wires, 2 coaxial video cable, 15 wires for alarms, relays and telemetry
CMAN1200	Armoured black cable, available by the metre (minimum order 10m (32.8ft)): 1 Ethernet cable, 3 power supply wires, 1 coaxial video cable, 7 wires for alarms, relays and telemetry

For further details on cable codes please refer to the relevant datasheet.

BRACKETS AND ADAPTORS

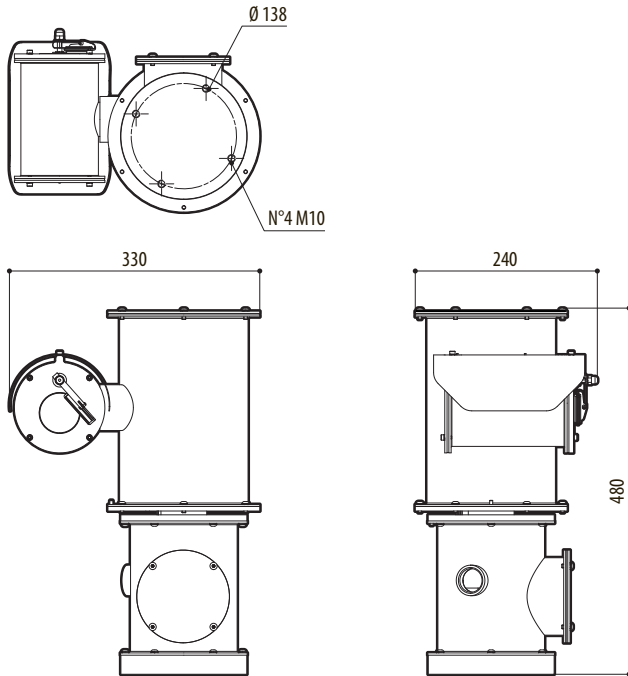|	
NXPTZWB	AISI 316L stainless steel wall bracket
NXPTZTW	AISI 316L stainless steel parapet or ceiling mounting bracket
NXPTZCOL	AISI 316L stainless steel pole adapter module
NXPTZCW	AISI 316L stainless steel corner adapter module

PACKAGE

Model Number	Weight	Dimensions (WxHxL)	Master carton
NXPTZHD	26.5kg (58lb)	54x31x49cm (21x12x19in)	-

NXPTZ SERIES2 WITH SONY FCB-EV7520 CAMERA- CONFIGURATION OPTIONS									
	Voltage		**Camera**			**Video analytics**		**Revision**	
NXPTZHD	**1**	230Vac	**2**	SONY FCB-EV7520 camera, FULL HD 1080p, 30x	**VW0Z0**	**0**	Without integrated video analytics (without VIDEOTEC ANALYTICS)	**C**	Complies with ONVIF, Profile Q, Profile S and Profile T
	2	24Vac				**V**	With integrated video analytics (VIDEOTEC ANALYTICS)	**J**	Complies with ONVIF, Profile S and Profile T
	3	120Vac							

TECHNICAL DRAWINGS

The indicated measurements are expressed in millimetres.

NXPTZ SERIES2