MAXIMUS MPX SERIES2 EX-PROOF PTZ CAMERA

VIDEOTEC

OUTDOOR VIDEO SECURITY

Videotec is an Italian manufacturer operating in the security industry since 1986 and specialized in the design and creation of professional video surveillance products for outdoor environments.

FUTURE-PROOF TECHNOLOGY

All product ranges offered are proudly "Made by Videotec" and, therefore, Videotec owns complete expertise for all of its products with total control over mechanics, electronics, positioning, networking, software and firmware.

This gives a significant competitive advantage in meeting the needs of personalized solutions or integrations with third-party systems, with the guarantee of Videotec quality, cyber-security, reliability and future-proof technology.

OUR MISSION

As a unique firm created with the aim of shaping and enhancing a select market, we strive relentlessly to boost our clients' growth and satisfaction by constantly making an effort to cultivate our teams'expertise, professionalism, and creativity. Thanks to our focus on client prosperity and well-being, we are all better off.

CERTIFIED QUALITY AS A COMPETITIVE ADVANTAGE

Videotec is an ISO 9001:2015 & ISO 14001:2015 certified company.

DIFFERENTIATORS: 100% INTERNAL KNOW-HOW AND TECHNOLOGY

Designed to be zero maintenance.
Durability: 3 Years warranty as a standard. Extended warranty available up to 5 years.
Variety of custom choices: Build the best product configuration for your specific application in house.
Certified products: From international industry standards and other environmental product testing.
Open standard integration: Contributing member of ONVIF Testing of VMS and third-party products.
Additional services: Factory/Site Acceptance Testing Videotec Technical Training.

MAXIMUS MPX SERIES2
CERTIFIED QUALITY

WIPER
camera is standard equipped with a wiper. The optional washer system helps ensure a clear view in any environmental conditions.

MATERIAL
Construction in stainless steel AISI 316L with electro-polished and micro-shot peened external finishing for an increased corrosion resistance.

CERTIFICATIONS
All versions of the MAXIMUS MPX SERIES2 PTZ are certified as being explosion-proof and have an ambient temperature of up to +80°C (ATEX/IECEx, UL/CSA, EAC Ex, INMETRO, KCs).

JUNCTION BOX
Easy connection via fiber optic thanks to the SFP module slot installed directly into the junction box in the PTZ base.

EASY TO INSTALL
The double cable entry and the numerous accessories and supports available (washing system, communication box, pre-wired cables, cable glands, wall supports, railing supports, corners and pole), allow exceptional installation flexibility. The compact design adapts to narrow spaces, while the reduced weight of the unit makes it simpler to mount.

DUAL VISION OR LED ILLUMINATOR
Dual vision versions with a wide range of thermal and full hd camera combinations or with integrated LED illuminator.

CYBER SECURITY
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.products will have the highest level of security during data transfer and device access.

DIFFERENT TYPES OF CAMERA
2 types of full hd cameras with video analysis and dual vision cameras or wide choice of thermal cameras.

VIDEO SECURITY FOR OIL & GAS AND HAZARDOUS AREAS

Sophisticated products and technologies are required to enable safe operations in Oil&Gas offshore/onshore explorations and production activities. Equipment needs to be specifically designed in compliance with stringent specifications, which may vary according to the country or the type of environment or specific application.

Thanks to 35 years of experience, Videotec can respond to these changing and challenging demands, providing optimal and tailor-made video security solutions.

Whether the type of area is safe or hazardous, Videotec has unsurpassed knowledge in creating video products for hazardous environments. Today, they offer the most advanced, well-researched technical features for surveillance systems that operate in Oil&Gas and offshore/onshore marine industries.

Videotec explosion-proof products boast an unparalleled portfolio of international certificates, obtained through hundreds of validation tests to guarantee their compliance with the standards for installation in potentially explosive environments, given the presence of gas and flammable dust.

These devices are 100% in-house designed and manufactured, using the best quality components and state-of-the-art materials, which leaves no doubt about their exceptional robustness, reliability and unrivalled performance.

BUSINESS SEGMENTS
• Oil & Gas Platforms
• Oil & Gas Drilling Rigs
• Oil Tankers
• Refineries and Petroleum Terminals
• Pipelines
• Industrial Marine Environments
• Military Systems
• Chemical/Pharmaceutical Industries
• Other Industrial Installations
• Food Processing
• Ship Docking

MAXIMUS MPX SERIES2

OPTICS PACKAGE

1. OIL & GAS PLATFORMS

2. OIL & GAS TANKERS

3. SHIP DOCKING

4. DRILLING RIGS

5. PIPELINES

6. INDUSTRY PLANTS

7. TERMINAL

MAXIMUS MPX SERIES2
DELUX CAMERA

The IP Super low-light FullHD 1080p video camera and Delux technology offer unparalleled brightness and provide video footage with crispy 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.

OTHER

DELUX

MAXIMUS MPX SERIES2
SONY FCB-EV7520 CAMERA

MAXIMUS MPX 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.

The image stabilization algorithm means even the smallest camera vibrations are detected and any blur in the footage is dynamically corrected. This results in a sharp image of the scene being surveilled.

With MPX SERIES2 and the SONY camera, 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. The advanced SONY technology brings Wide Dynamic Range and a configurable High Light Compensation that allows optimal management of contrasting light and dark conditions.
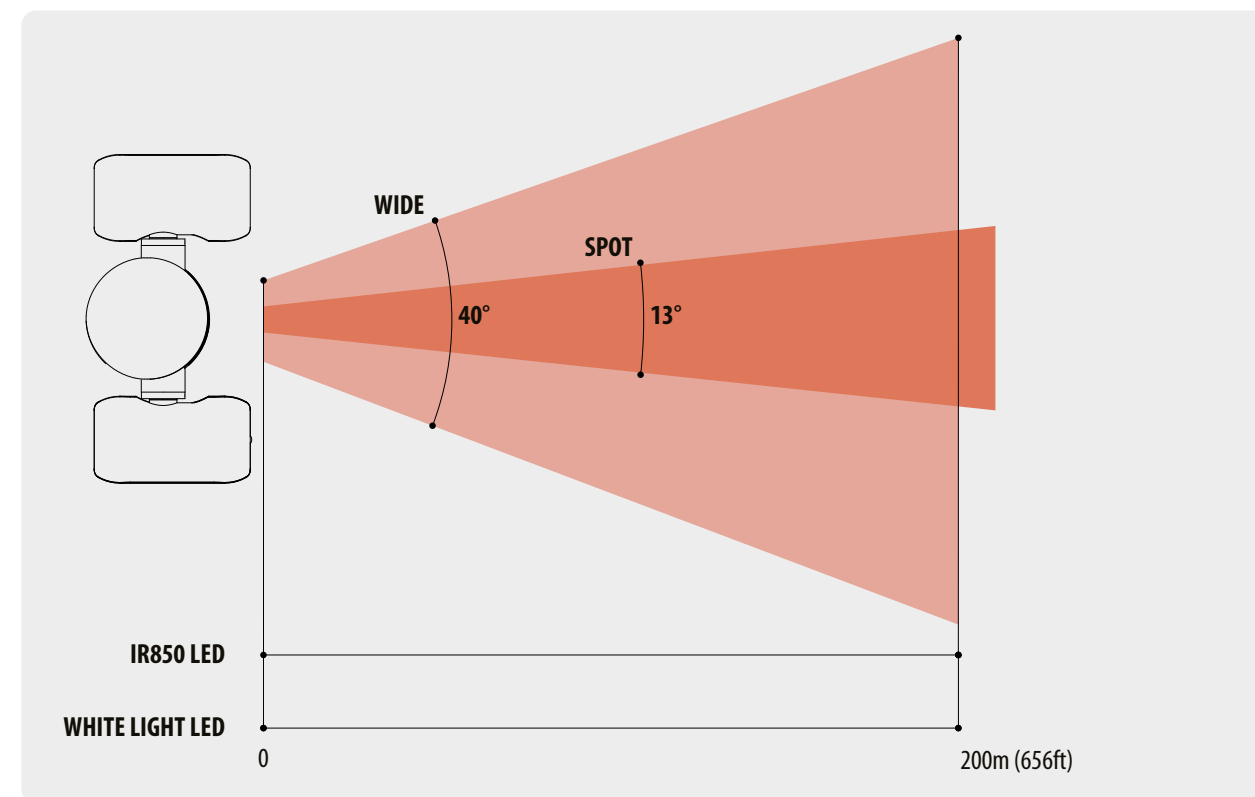
MAXIMUS MPXL SERIES2
PERFORMANCE WITH LED ILLUMINATORS

The MAXIMUS MPXL SERIES2 PTZ camera combines in a single device a Day/Night camera and a long-range LED illuminator.

It is ideal for classified areas of the Oil&Gas sector, maritime and industrial, like drilling rigs, refineries, tanks, or the monitoring of processes in chemical and pharmaceutical manufacturing.

This PTZ camera integrates a SONY FCB-EV7520 Day/Night camera with 30x zoom that provides FullHD, 1080p images and that, thanks to the built-in illuminator, can detect a target in outdoor areas up to 200m away, even during the night or in low light conditions.

IR & WHITE LIGHT LED

The illuminator LEDs automatically adjust to the zoom fator and illuminate the field of view evenly, eliminating hotspots and underexposure.

The activation of the beam, spot or wide, can be done via software, based on the brightness of the scene, and also based on the preset or the zoom, via alarm input or manually.

WIDE
SPOT
40° 13°
IR850 LED
WHITE LIGHT LED
0   200m (656ft)

MAXIMUS MPX SERIES2
RADIOMETRIC FUNCTIONS

MPX SERIES 2 PTZ thermal camera can identify targets moving in the dark or at distance with extreme accuracy. As well as this, it has radiometric functions that allow precise temperature detection based on the image's 4 main pixels.

Also available are models with **advanced radiometry** that can measure the temperature of an object in any point of the image by defining up to **5 ROI (Region of Interest)** for every preset position. The device can be configured so that it independently generates a Radiometric Alarm and/or Warning via ONVIF Events on the VMS.

For example, an event can be sent when:

- **Temperature is BELOW a set value**
- **Temperature is ABOVE a set value**
- **Temperature is BETWEEN two set values**
- **Temperature is OUTSIDE two set values**

In camera models with advanced radiometric functions, thermal cameras also offer three temperatures: minimum, average and maximum. Radiometric rules can be linked to exceeding one of these three temperature thresholds.

This technology is **designed to protect investment and process monitoring and to safeguard personnel on site** and can be a very valuable use for different vertical markets with the **capability of monitoring multiple assets**, such as connection points, transformers, bushings, insulators, isolators, arrestors, breakers. For example in a substation, we can monitor several transformers and perform preventive maintenance. In many industries, including Oil&Gas, we can monitor one or more gas flares or flare stack.
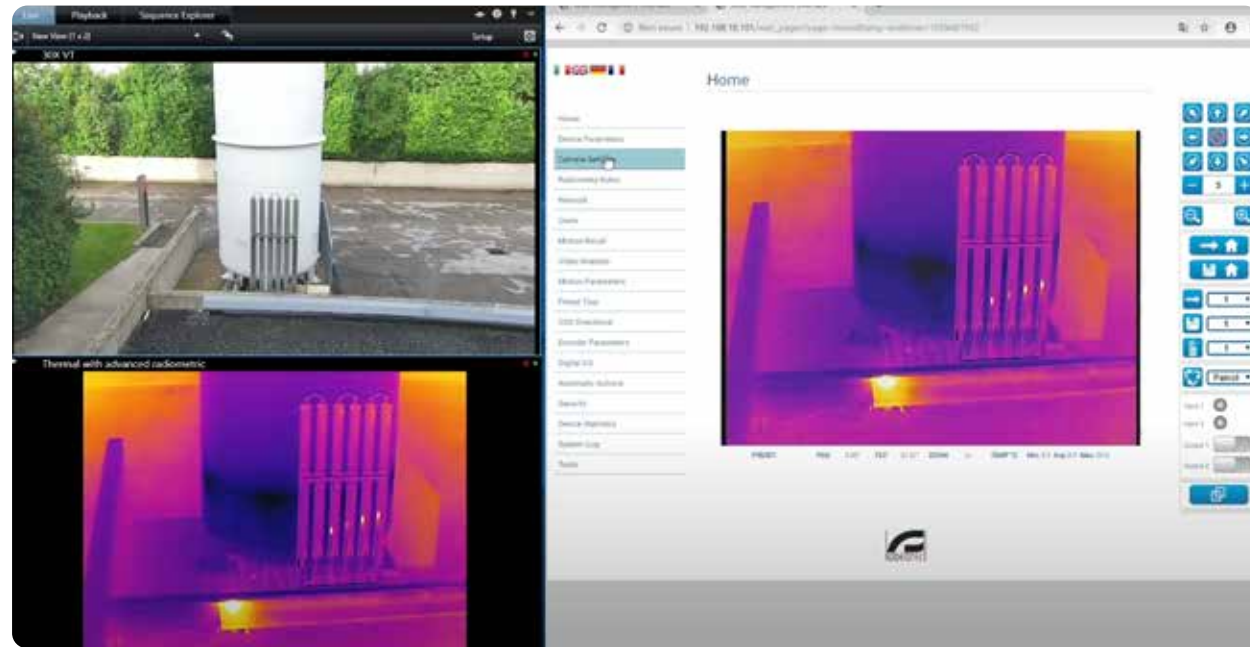
The defined **ROIs** are scaled proportionally to the digital zoom. So, when zooming in the ROI is increased and when zooming out the ROI is decreased. PTZ ROIs are set to preset PAN and TILT positions (not zoom) so they then change in relation to the zoom.

MAXIMUS MPXT SERIES2
DUAL VISION

MAXIMUS MPXT SERIES2 is an ex-proof Dual Vision network PTZ camera that combines a Day/Night camera and thermal camera with radiometric functions.
This certified ex-proof PTZ camera is the optimum solution for effective video surveillance and process control in the Oil & Gas, Maritime and Industrial sectors and in environments where there is a risk of fire or explosion as a result of flammable gases or vapours, flammable liquids or combustible dust being present.

The visible camera is a SONY FCB-EV7520 with 30x optical zoom and a type ½.8" Exmor R™ CMOS sensor with Full HD 1080/60p resolution. The camera can produce flawless image quality even where there are moving objects or poor lighting conditions. The advanced SONY technology offers configurable Image Electronic Stabilizer and High Light Compensation meaning light/shadow contrasts and areas subject to vibrations can be managed in the best possible way.

The thermal camera can identify targets in the dark or at distance with extreme accuracy. As well as this, it has radiometric functions that allow precise temperature detection based on the image's 4 main pixels. Also available are models with advanced radiometry that can measure the temperature of an object in any part of the image by defining up to 5 ROI. The radiometric functions can generate alarms based on temperature thresholds.

MAXIMUS SERIES2
SFP MODULE CAMERA PLUGGABLE

The MPX SERIES2 PTZ cameras can be connected via **fiber optic** thanks to the SFP module housed within the PTZ unit, by means of a specially developed accessory (MPXPTZSFP).

The **SFP module** (Small Form Factor Pluggable) is a small transceiver that connects to the PTZs SFP port and converts serial electrical signals into serial optical signals.
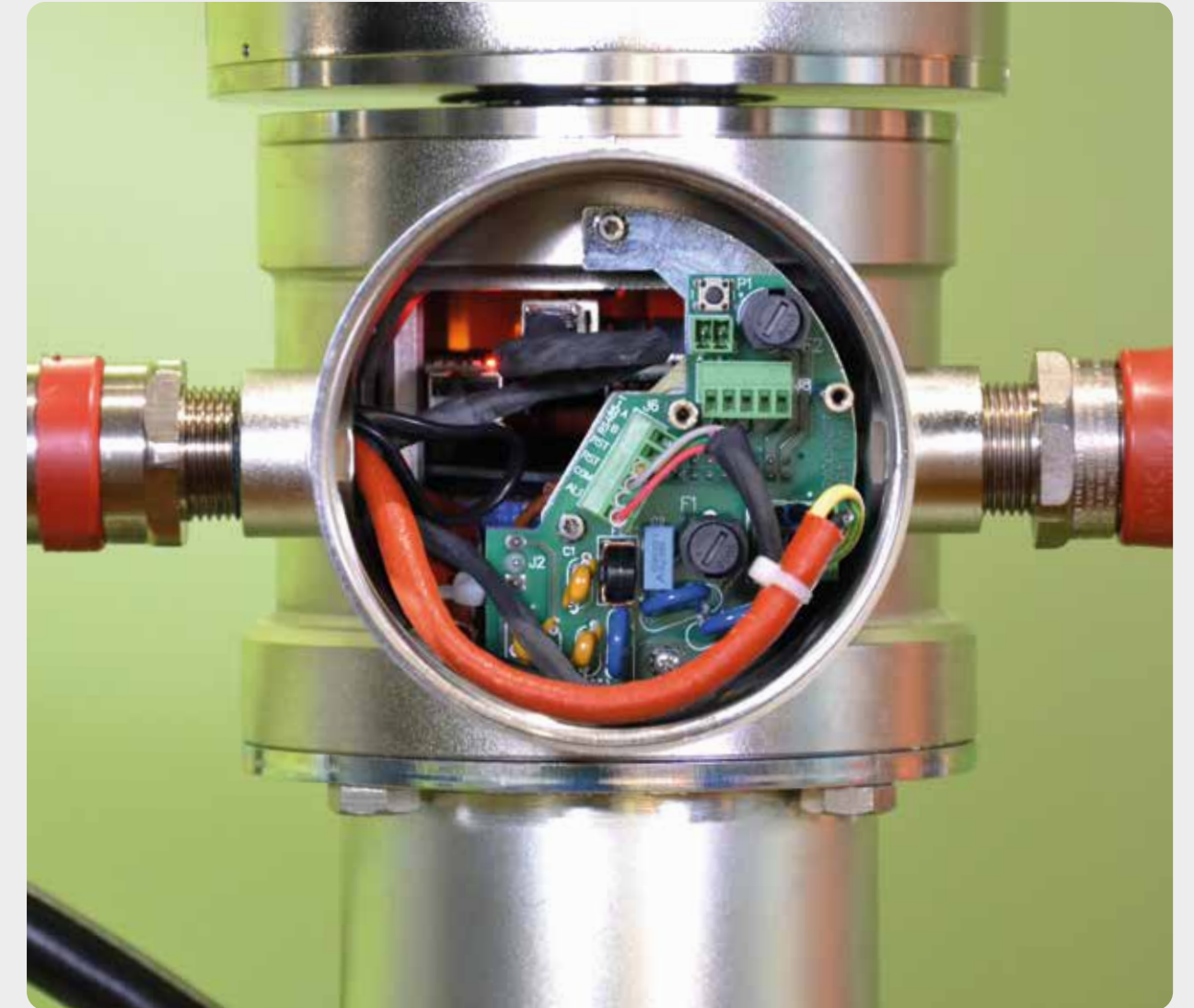
The simplified installation with SFP module offers the following advantages:
• **Reduced number of components**
• **Installation cost reduction**

SFP module

VIDEOTEC ANALYTICS
The video analysis technology, integrated into Videotec cameras, offers an end-to-end solution for preventative detection of intrusions in outdoor monitoring applications of critical infrastructures, industrial sites and perimeters.

Videotec Analytics is the result of more than 10 years of research and design, carried out by a team of R&D professionals, cooperating together with prestigious international universities and research centres.

THE ADVANTAGES OF VIDEO ANALYTICS
• Maximum preventative anti-intrusion efficiency: every part of the system is designed and automated to allow immediate and preventative actions against any possible threat.
• A reduction in human error and costs.
• Reduced storage space needed: only necessary footage is recorded.
• Optimal external operation in the most critical and complex atmospheric conditions.
• Videotec Analytics enables the geolocation function: GeoMove&Track. This function allows a form of cooperation between two Videotec cameras via an intelligent language to create advanced actions also on the more common video surveillance systems. This function offers the benefit of having a complete, turn-key positioning and tracking solution, guaranteed by Videotec.
• Unbeatable detection performance even at long distances, thanks to the analysis of detail-rich high-definition images.
• Reduced time and effort needed to monitor, detect and search the recordings for anomalous events. The resulting security system is highly efficient, reliable and convenient.

HOW DOES VIDEOTEC ANALYTICS WORK
Every time there is an alarm, the auto-tracking automatically activates, and event metadata is sent to the VMS via the ONVIF protocol. Simultaneously, the security operators are then alerted, and recording starts. The camera keeps the moving target at the centre of the frame and zooms in on the target to make recognition easier. The metadata can be used to frame the target with a bounding box for identification of the subject or can be used to activate alarms or begin recording.

RULES
Depending on the rules set, an alarm starts, and the auto-tracking is activated if an object enters, exits, or appears or stops more than allowed in an area.

CALIBRATION
The operator can calibrate the scene's point of view, so it is possible to render the targets in 3D.

TARGET CLASSIFICATION
After a simple calibration procedure, targets can be classified into the following categories: generic objects, person, vehicle. Thereby, targets will trigger an alarm based on their size. The result is a drastic reduction of false alarms caused by irrelevant targets.
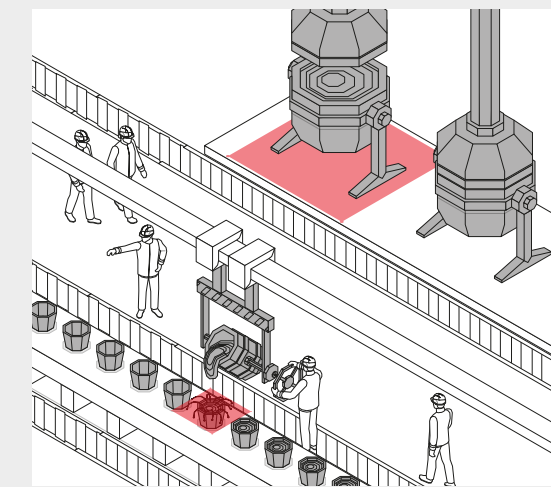

ADVANCE RADIOMETRIC
FUNCTIONS

Videotec offers advanced radiometric functions for its thermal cameras, which provide an efficient and preventative surveillance system in hazardous areas.
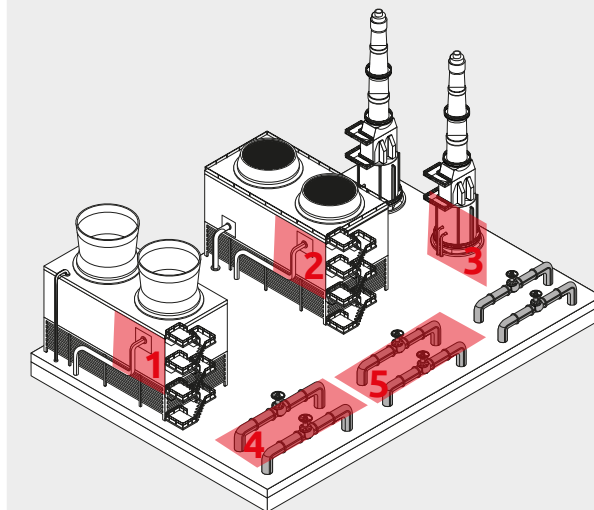
These advanced thermal cameras allow temperature measurement of an object at any point of the image through the definition of 5 ROI (Region Of Interest) for every preset position.

Moreover, with advanced radiometric thermal cameras, it is possible to set alarms based on temperature thresholds. This function is a powerful tool in process automation as it helps the monitoring of vulnerable equipment or sensitive areas or operations. You can detect, for example, the presence (or absence) of a flame in an industrial process or plant.
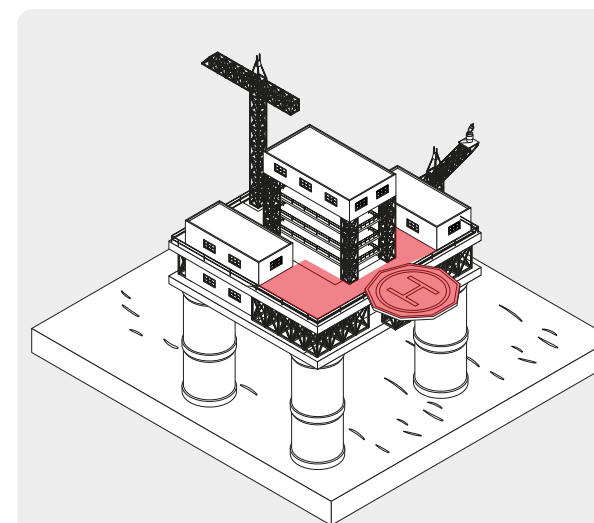
Of course, the dual visible/thermal technology can offer you detection and analytics on the thermal side, while the visible camera can eventually assess with a crisp and clear image.
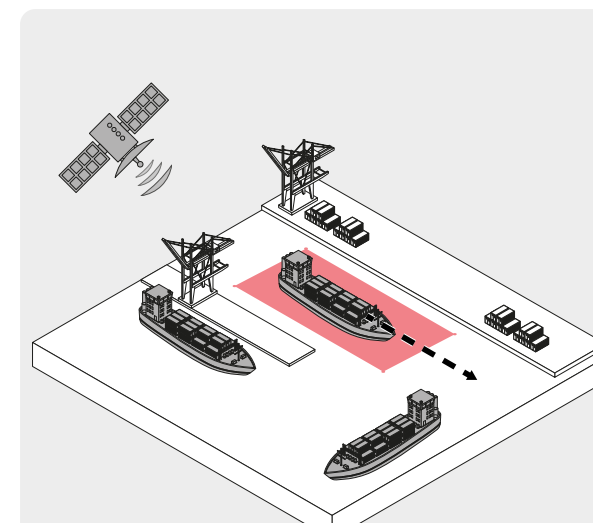

Process Control. By setting alarms based on temperatures, you can detect the presence (or absence) of a flame in an industrial process or plant.
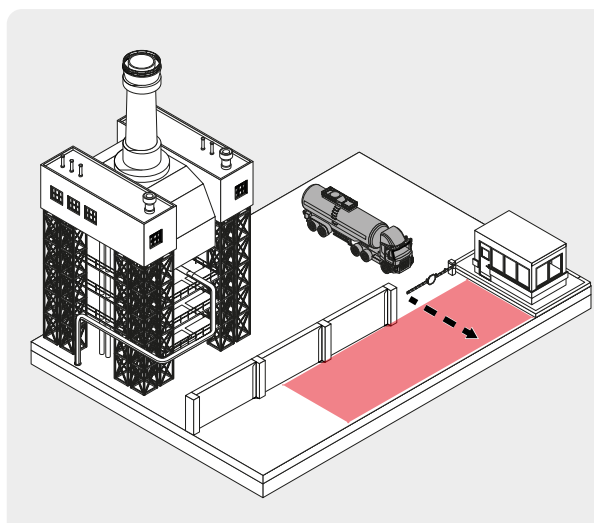

ROI. Advanced radiometry allows temperature measurement of an object at any point of the image through the definition of 5 ROI for every preset position.

Entering/Leaving Area. The target triggers an alarm if it enters or leaves a specific area.

GeoMove. GeoMove funtion can interface with third-party software providing the geo-coordinates of an object.

Safe Area. The target triggers an alarm if it stays in a specific area longer than a defined time.

MAXIMUS MPX SERIES2

EXPLOSION-PROOF PTZ CAMERAS

The IP PTZs from the new **MAXIMUS SERIES2** line offer the highest performance level and unbeatable competitiveness for security systems in hazardous Oil&Gas, marine and industrial environments.
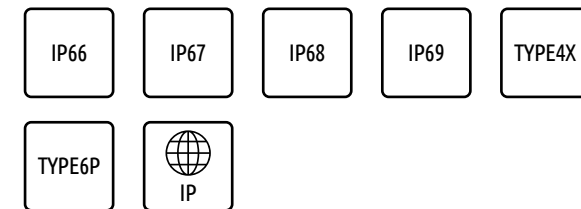
The MAXIMUS SERIES2 range enables PTZ connection via fiber optic thanks to the SFP module.

Models are available with integrated video analysis, with thermal cameras, with dual vision and with built-in IR LED illuminator.

Entirely manufactured in AISI316L stainless steel, the SERIES2 cameras are ideal for use in highly corrosive environments. The high IP degree, IP66/IP67/IP68/IP69, NEMA Type 4X and Type 6P, guarantees complete protection against water and dust entry.

All the versions of the PTZ MAXIMUS SERIES2 are explosion-proof certified with an ambient temperature up to +80°C with international certification for use in Zone 1 and 2, Group IIC for gas, Zone 21 and 22, Group IIIC for dust.

The Lloyd's Register Marine Type Approval System, Test Specification Number 1 certification allows the use in Marine applications.

| IP66 | IP67 | IP68 | IP69 | TYPE4X |
| TYPE6P | IP |

MAXIMUS MPX SERIES2

CAMERA	SONY FCB-EV7520	DELUX TECHNOLOGY
Type of camera	Day/Night camera	Day/Night camera
Image electronic stabilizer	√	-
Resolution	Full HD (1920x1080)	Full HD (1920x1080)
Minimum illumination	Colour: 0.0013lx (50 IRE, High sensitivity on) B/W: 0.00008lx (30 IRE, High sensitivity on)	Colour: 0.006lx (F1.6, 30 IRE) B/W: 0.0006lx (F1.6, 30 IRE)
Zoom	30x (360x with digital zoom)	30x (480x with digital zoom)
Lens	f= from 4.3mm (wide) up to 129mm (tele), from F1.6 up to F14	f= from 4.5mm (wide) up to 135mm (tele), from F1.6 up to F9.6
Privacy zones masking	√ (dynamic masking)	√
MECHANICAL		
Material	AISI 316L stainless steel construction	AISI 316L stainless steel construction
Cable entry	2 holes 3/4" NPT	2 holes 3/4" NPT
Horizontal rotation	360°, continuous rotation	360°, continuous rotation
Vertical rotation	From -90° up to +90°	From -90° up to +90°
Horizontal speed (variable)	From 0.1°/s up to 100°/s	From 0.1°/s up to 100°/s
Tilt speed (variable)	From 0.1°/s up to 100°/s	From 0.1°/s up to 100°/s
ELECTRICAL		
Supply voltage/current consumption	230Vac, 0.5A, 50/60Hz 24Vac, 5A, 50/60Hz 120Vac, 1A, 50/60Hz 220Vac, 0,54A, 50/60Hz 100Vac, 1.2A, 50/60Hz	230Vac, 0.5A, 50/60Hz 24Vac, 5A, 50/60Hz 120Vac, 1A, 50/60Hz 220Vac, 0,54A, 50/60Hz 100Vac, 1.2A, 50/60Hz
Power consumption	120W max	120W max
Optical fiber	Slot SFP	Slot SFP
SOFTWARE		
Communication protocol	ONVIF, Profile Q, Profile S and Profile T	ONVIF, Profile Q, Profile S and Profile T
Video compression	H.264/AVC, MJPEG, MPEG4, snapshot JPEG	H.264/AVC, MJPEG, MPEG4, snapshot JPEG
Video analytics	√	√
ENVIRONMENT		
Certification temperature	From -40°C (-40°F) up to +80°C (+176°F)	From -40°C (-40°F) up to +80°C (+176°F)

MAXIMUS MPXR & MPXT SERIES2

EXPLOSION-PROOF PTZ CAMERAS

	MAXIMUS MPXR SERIES2	**MAXIMUS MPXT SERIES2**
CAMERA		
Type of camera	Thermal camera	Thermal camera + Day/Night camera
Radiometric analysis	-	√
Image electronic stabilizer	-	√
Resolution	720x480 (interpolated resolution)	Thermal camera: 720x480 (interpolated resolution) Day/Night: Full HD (1920x1080)
Minimum illumination	-	Day/Night Colour: 0.0013lx (50 IRE, High sensitivity on) B/W: 0.0008lx (30 IRE, High sensitivity on)
Zoom	640x512: 2x, 4x (digital zoom) 336x256: 2x, 4x, 8x (digital zoom)	Thermal camera: 2x, 4x (336x256), digital zoom 2x, 4x, 8x (640x512), digital zoom Day/Night: 30x (360x with digital zoom)
Lens	35mm (1.38in), 25mm (0.98in), 19mm (0.7in), 13mm (0.5in), 9mm (0.35in)	Thermal camera: 9mm, 13mm, 19mm, 25mm, 35mm Day/Night: f= from 4.3mm (wide) up to 129mm (tele), from F1.6 up to F14
Privacy zones masking	-	√ (dynamic masking)
MECHANICAL		
Material	AISI 316L stainless steel construction	AISI 316L stainless steel construction
Cable entry	2 holes 3/4" NPT	2 holes 3/4" NPT
Horizontal rotation	360°, continuous rotation	360°, continuous rotation
Vertical rotation	From -90° up to +90°	From -90° up to +90°
Horizontal speed (variable)	From 0.1°/s up to 100°/s	From 0.1°/s up to 100°/s
Tilt speed (variable)	From 0.1°/s up to 100°/s	From 0.1°/s up to 100°/s
ELECTRICAL		
Supply voltage/current consumption	230Vac, 0.5A, 50/60Hz 24Vac, 5A, 50/60Hz 120Vac, 1A, 50/60Hz 220Vac, 0.54A, 50/60Hz 100Vac, 1.2A, 50/60Hz	230Vac, 0.5A, 50/60Hz 24Vac, 5A, 50/60Hz 120Vac, 1A, 50/60Hz 220Vac, 0.54A, 50/60Hz 100Vac, 1.2A, 50/60Hz
Power consumption	120W max	120W max
Optical fiber	Slot SFP	Slot SFP
SOFTWARE		
Communication protocol	ONVIF, Profile Q, Profile S and Profile T ONVIF Thermal Service	Thermal camera: ONVIF, Profile Q, Profile S and Profile T ONVIF Thermal Service Day/Night: ONVIF, Profile Q, Profile S and Profile T
Video compression	H.264/AVC, MJPEG, MPEG4, snapshot JPEG	H.264/AVC, MJPEG, MPEG4, snapshot JPEG
ENVIRONMENT		
Certification temperature	From -40°C (-40°F) up to +80°C (+176°F)	From -40°C (-40°F) up to +80°C (+176°F)

MAXIMUS MPXL SERIES2

EXPLOSION-PROOF PTZ CAMERAS

NEW

	MAXIMUS MPXL SERIES2
CAMERA	
Type of camera	Day/Night camera
Radiometric analysis	-
Image electronic stabilizer	√
Resolution	Full HD (1920x1080)
Minimum illumination	Colour: 0.0013lx (50 IRE, High sensitivity on) B/W: 0.0008lx (30 IRE, High sensitivity on)
Zoom	30x (360x with digital zoom)
Lens	f= from 4.3mm (wide) up to 129mm (tele), from F1.6 up to F14
Privacy zones masking	√ (dynamic masking)
LED ILLUMINATOR	
Wavelength	850nm
Maximum viewing distance	200m
MECHANICAL	
Material	AISI 316L stainless steel construction
Cable entry	2 holes 3/4" NPT
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
ELECTRICAL	
Supply voltage/current consumption	to 220Vac up to 230Vac, 0.5A, 50/60Hz 24Vac, 5A, 50/60Hz 120Vac, 1A, 50/60Hz 100Vac, 1.2A, 50/60Hz
Power consumption	120W max
SOFTWARE	
Communication protocol	ONVIF, Profile Q, Profile S and Profile T
Video compression	H.264/AVC, MJPEG, MPEG4, snapshot JPEG
Video analytics	√
ENVIRONMENT	
Certification temperature	From -40°C (-40°F) up to +70°C (158°F)

ACCESSORIES

FM1010
EMC FILTER FOR MARINE CERTIFICATION
• The filter must be connected to the power line of the equipment
• The filter is not explosion-proof certified
• Implement adequate protection if used in potentially explosive classified environments (e.g. Atex)
• Electrical data: from 0 up to 250V DC/AC 50/60 Hz, 6A

MAXIMUS MBX
EXPLOSION-PROOF COMMUNICATION BOX IN STAINLESS STEEL
• Embedded Ethernet switch with four channels
• 2 bypass for analog video signals with BNC connectors
• 2 bypass for I / O signals with multi-pin connectors
• Input voltages available: 230Vac, 120Vac, 24Vac
• MAXIMUS MBX exclusively supports Videotec products from the Maximus range with 24Vac and Wasex with 24Vac

NEW

MAXIMUS MLX
EXPLOSION-PROOF ILLUMINATOR
• AISI 316L electropolished stainless steel
• Models with IR 850nm (11 LEDs) or white light (10 LEDs)
• Power supply: 24Vac or 24Vdc or **PoE+ (IEEE 802-3at)**
• Consumption: 25.5W

WASEX
WASHER PUMP WITH EXPLOSION-PROOF SOLENOID VALVE
• Delivery head: up to 30m (66ft)
• Water tank capacity: 10l (2.6gal)
• Suitable for MAXIMUS series or with third-party products
• Power supply: 24Vac or 24Vdc
• Consumption: 5W
• Version with Pressure switch

MAXIMUS MBA
EXPLOSION-PROOF COMMUNICATION BOX IN ALUMINIUM
• Embedded Ethernet switch with four channels
• 2 bypass for analog video signals with BNC connectors
• 2 bypass for I / O signals with multi-pin connectors
• Input voltages available: 230Vac, 120Vac, 24Vac
• MAXIMUS MBA exclusively supports Videotec products from the Maximus range with 24Vac and Wasex with 24Vac

EXPLOSION-PROOF CAMERAS BRACKETS

MPXWBA
WALL MOUNT BRACKET
• Made of AISI 316L electropolished stainless steel
• Load rating: 40kg (88lb)
• Length: 400mm (15.7in)
• Can be coupled with modular components (MPXCW, MPXCOL)

MPXCOL
POLE MOUNT ADAPTOR
• AISI 316L electropolished stainless steel
• For pole diameters: from 110mm (4.3in) up to 150mm (5.9in)
• Load rating: 50kg (110lb)
• Dim.: 198x182mm (7.8x7.2in)

MPXCW
CORNER MOUNT ADAPTOR
• Load rating: 50kg (110lb)
• Dimensions: 335x186mm (13.2x7.3in)

MPXWBTA
PARAPET OR CEILING MOUNTING BRACKET
• AISI 316L electropolished stainless steel
• Load rating: 40kg (88lb)
• Dimensions: Ø 238mm (9.4in)

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DOCBENMPX-REV1

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