MAXIMUS MPXT

STAINLESS STEEL EXPLOSION PROOF PTZ WITH THERMAL CAMERA AND DAY/NIGHT CAMERA REVISION 1209

MAIN FEATURES

- Explosion-proof electropolished AISI 316L steel Pan & Tilt, complete with a Day/Night camera, thermal camera and telemetry receiver
- Variable speed: 0.1°-100°/s Pan and Tilt
- Continuous Pan rotation,Tilt rotation -90°/+90°
- Multiprotocol RS485/ RS422 serial interface
- Dynamic video masking of different areas
- Day/night (Auto ICR: automatic removal of IR filter)
- Remote firmware upgrade
- Video output available in analogue mode (via coaxial cable or optical fibre) or digital mode

DESCRIPTION

MAXIMUS MPXT is a sturdy stainless steel explosion-proof Pan & Tilt which integrates a telemetry receiver, a Day/Night camera and a thermal camera. MAXIMUS MPXT offers continuous and high-speed rotation, absolute positioning precision, superior image quality and simplified system configuration.

It is made of AISI 316L stainless steel passivated and electropolished.

The speed can reach up 100°/s by stepless horizontal rotation over a -90° to +90° vertical range. The P&T head can handle preset, autopan and patrol functions with 0.02° accuracy.

The integrated SONY camera is available with different optical zoom and allows high precision viewing of nearby or remote objects and dynamic masking of private areas. Moreover, the 1/4" Super HAD CCD II sensor (version with 28x zoom) guarantees high sensitivity in poorly lit environments.

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 NEdT 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 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.

All models feature a standard integrated wiper.

24, 230 or 120Vac versions in PAL or NTSC modes.

In addition to the OSD configuration, the system features a RS485/RS422 interface for complete control and remote updating to the latest firmware.

The Pan & Tilt is available both in analogue mode (via coaxial cable or optical fibre, single mode or multi mode) and in digital mode through the Ethernet cable, depending on the version.

MPXT

MPX

Supported by milestone

ONVIF Driving network video through global standardization

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TECHNICAL DATA

GENERAL

AISI 316L stainless steel construction

Passivated and electropolished external surfaces

Quick configuration and setup

Dynamic positioning control system

MECHANICAL

1 3/4" NPT input for thread

Zero backlash

Horizontal rotation: continuous

Vertical rotation: -90° to +90°

Variable pan speed: from 0.1° to 100°/s

Variable tilt speed: from 0.1° to 100°/s

Preset accuracy: 0.02°

Weight: 31kg (68lb)

ELECTRICAL

Input voltage:

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

2 video outputs 75 Ohm 1Vpp (PAL/NTSC)

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

Maximum number of presets:

- VIDEOTEC MACRO Protocol: 250
- ERNITEC protocol: 250
- PANASONIC protocol: 250
- PELCO D Protocol: 99
- AMERICAN DYNAMICS protocol: 95

16-character string for zone and preset titling

I/O alarm card:

- 5 alarm inputs
- 2 relay outputs (1A 30Vac/60Vdc max)

COMMUNICATIONS

Configuration through OSD

Nr.2 half-duplex serial RS485 interfaces, full-duplex RS422

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

Up to 999 units, addressable by means of dip-switches

Integrated fiber optic video/data transceiver (optional):

- 10bit PCM
- Full duplex RS422/RS485
- Multi Mode/Single Mode

IP Streaming Module (optional)

- MPEG4 compression
- Compatible with ONVIF 1.01
- Compatible with VMS Milestone XProtect suite
- LAN 10/100 Mbit/s RJ45 interface
- Resolutions: Full D1 (720x576) @30fps, VGA (640x480), CIF (352x288), QCIF (176x144)

PROTOCOLS

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

The product may be interfaced with devices not manufactured by VIDEOTEC. It is possible that the interface protocols have changed or are in a different configuration from earlier tested units by VIDEOTEC. VIDEOTEC recommends a test prior to installation. VIDEOTEC will not be liable for any installation costs or lost revenues in the event a compatibility problem will occur.

*AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO are registered trademarks.

ENVIRONMENT

Indoor / Outdoor

Operating temperature: see certifications

Surge immunity: up to 2KV line to line, up to 4KV line to earth (Class 4)

CERTIFICATIONS

ATEX (EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009)

- Ⓔx II 2 G Ex d IIC T6 T_A -40°C to +60°C Gb
- Ⓔx II 2 D Ex tb IIIC T85°C T_A -40°C to +60°C Db
- IP66

IECEx (IEC 60079-0: 2007, IEC 60079-1: 2007, IEC 60079-31: 2008)

- Ex d IIC T6 T_A -40°C to +60°C Gb
- Ex tb IIIC T85°C T_A -40°C to +60°C Db
- IP66

UL pending

BRACKETS AND ADAPTORS

MPXWBA	AISI 316L stainless steel wall bracket
MPXCW	AISI 316L stainless steel corner adapter module
MPXCOL	AISI 316L stainless steel pole adapter module
MPXWBTA	AISI 316L stainless steel parapet or ceiling mounting bracket

ACCESSORIES

OCTEX3/4C	Cable gland with gasket EX 3/4" NPT, unarmoured cable IECEX-ATEX-GOST
OCTEXA3/4C	Cable gland with gasket EX 3/4" NPT, armoured cable IECEX-ATEX-GOST
OCTEXB3/4C	Barrier cable gland 3/4" NPT, unarmoured cable IECEX-ATEX-GOST
OCTEXBA3/4C	Barrier cable gland 3/4" NPT, armoured cable IECEX-ATEX-GOST
OCTEX3/4	Cable gland with gasket EX 3/4" NPT, unarmoured cable ATEX
OCTEXA3/4	Cable gland with gasket EX 3/4" NPT, armoured cable ATEX

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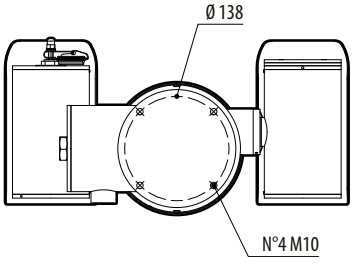
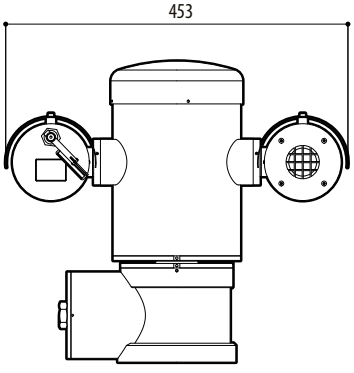
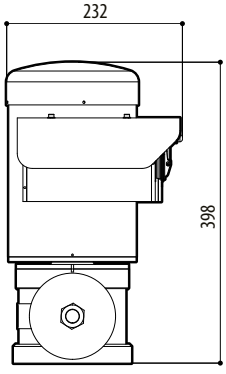
SELECTION TABLE FOR CABLE GLANDS							
Zone, Gas	**Cable gland type**	**Certification**	**Operating temperature**	**Cable**	**Cable glands part code**	**External diameter (mm)**	**Diameter under armour (mm)**
IIC, Zona 1 or Zona 2 IIB or IIA, Zona 1	Barrier	IECEX/ATEX/GOST	-60 / +80°C	Not armored	OCTEXB3/4C	13 - 20.2	
				Armored	OCTEXBA3/4C	16.9 - 26	
IIB o IIA, Zone 2	With gasket	IECEX/ATEX/GOST	-60 / +100°C	Not armored	OCTEX3/4C	13 - 20.2	
				Armored	OCTEXA3/4C	16.9 - 26	11.1 - 19.7
		ATEX	-20 / +80°C	Not armored	OCTEX3/4	14 - 17	
				Armored	OCTEXA3/4	18 - 23	14 - 17

MAXIMUS MPXT - CONFIGURATION OPTIONS (NOT ALL COMBINATIONS ARE POSSIBLE)							
	Voltage	**Day/Night camera**	**Thermal Camera**	**With wiper**		**Video output**	
MPXT	**1** 230Vac	**P** Day/Night camera 36x optical zoom lens, PAL	**A** Thermal camera 35mm, 7.5-8.3Hz	**W**	**0**	**O** Analog mode	**00A**
	2 24Vac	**Q** Day/Night camera 28x optical zoom lens, PAL	**B** Thermal camera 25mm, 7.5-8.3Hz			**X** Integrated MPEG4 video server to control all functions via IP	
	3 120Vac	**N** Day/Night camera 36x optical zoom lens, NTSC	**N** Thermal camera 35mm, 25-30Hz			**F** Single Mode video and data transmitter on optical fibre	
		M Day/Night camera 28x optical zoom lens, NTSC	**O** Thermal camera 25mm (1in), 25-30Hz			**G** Multi Mode video and data transmitter on optical fibre	
			D High resolution thermal camera 35mm (1.4in), 7.5-8.3Hz				
			E High resolution thermal camera 25mm (1in), 7.5-8.3Hz				







MAXIMUS MPXT

Sizes in millimeters.

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ANALOGUE CAMERAS AVAILABLE				
	SONY DAY/NIGHT 36X		SONY DAY/NIGHT 28X HIGH SENSITIVITY	
	PAL	NTSC	PAL	NTSC
Optical zoom	**36x**		**28x**	
Wide Dynamic Range (Fix/Auto)	•			
True progressive SCAN	•			
Digital image stabilisation	•			
White balance	Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)			
High horizontal resolution	Up to 550 TV Lines			
Day/Night (Auto ICR)	•			
Image Sensor	1/4" EXView HAD CCD		1/4" Super HAD CCD II	
Number of effective Pixels	~ 440000 pixel	~ 380000 pixel	~ 440000 pixel	~ 380000 pixel
Min. night Illumination (ICR ON) (typical)	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
Min. day Illumination (ICR OFF) (typical)	0.1 Lux / 1/3s	0.1 Lux / 1/4s	0.16 Lux / 1/3s	0.16 Lux / 1/4s
"Shutter Time" automatic increase to improve the night surveillance	•			
S/N ratio	Greater than 50dB			
AE control	Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual			
Back light compensation	On/Off			
Spherical masking (3D) of Privacy zones with automatic upgrade	•			
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			
Focusing system	Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual			
"Smart" lens control	SONY Modular Automatic Lens Reset Technology			
High Zoom and Wide Horizontal Field of View Capability	•			
Optical zoom	36x, f=3.4 (wide) to 122.4mm (tele) / F1.6 to F4.5		28x, f=3.5 (wide) to 98mm (tele) / F1.35 to F3.7	
Digital Zoom	12x (432x with optical zoom)		12x (336x with optical zoom)	
Angle of view (A)	57.8 degrees (wide) to 1.7 degrees (tele)		55.8 degrees (wide) to 2.1 degrees (tele)	
Minimum object distance	320mm (12.6in) (wide) to 1500mm (59.1in) (tele)		10mm (0.4in) (wide) to 1500mm (59.1in) (tele)	
Electronic Iris Speed	1/1 ÷ 1/10000s			

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MAXIMUS MPXT - AVAILABLE THERMAL CAMERAS						
	Lens 35mm		Lens 25mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer					
Resolution	320x256	320x240	320x256	320x240	320x256	320x240
Pixel dimensions	25µm					
Spectral response - long wave infrared (LWIR)	from 7.5µm a 13.5µm					
Internal shutter (only for sensor compensation)	Video stop < 1sec.					
Digital Detail Enhancement (DDE)	•					
Digital Zoom	2x, 4x					
Image updating frequency	8.3fps, 25fps	7.5fps, 30fps	8.3fps, 25fps	7.5fps, 30fps	8.3fps, 25fps	7.5fps, 30fps
Scene temperature range	-40°C ÷ +160°C (-40°F ÷ +320°F)					
Horizontal field of view	13°		20°		48°	
Vertical field of view	12°		14°		37°	
F-number	F/1.2		F/1.1		F/1.25	
Thermal sensitivity (NEdT)	< 50mK a f/1.0					
Person (detection / recognition / identification)	780m / 190m / 97m (2.559/623/318ft)		560m / 140m / 70m (1.837/459/230ft)		205m / 56m / 26m	
Auto (detection / recognition / identification)	2150m / 560m / 280m		1550m / 400m / 200m		590m / 150m / 74m (1.936/492/243ft)	

MAXIMUS MPXT - AVAILABLE THERMAL CAMERAS						
	Lens 35mm		Lens 25mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer					
Resolution	640x512	640x480	640x512	640x480	640x512	640x480
Pixel dimensions	17µm					
Spectral response - long wave infrared (LWIR)	from 7.5µm a 13.5µm					
Internal shutter (only for sensor compensation)	Video stop < 1sec.					
Digital Detail Enhancement (DDE)	•					
Digital Zoom	2x, 4x					
Image updating frequency	8.3fps, 25fps	7.5fps, 30fps	8.3fps, 25fps	7.5fps, 30fps	8.3fps, 25fps	7.5fps, 30fps
Scene temperature range	-40°C ÷ +160°C (-40°F ÷ +320°F)					
Horizontal field of view	20°		25°		69°	
Vertical field of view	14°		20°		56°	
F-number	F/1.2		F/1.1		F/1.4	
Thermal sensitivity (NEdT)	< 50mK a f/1.0					
Person (detection / recognition / identification)	1140m / 280m / 142m		820m / 210m / 104m		300m / 81m / 38m	
Auto (detection / recognition / identification)	3000m / 800m / 400m		2200m / 580m / 290m		820m / 210m /100m	

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