MAXIMUS MPXT

EX-PROOF DUAL VISION PTZ CAMERA, DAY/NIGHT AND THERMAL, FOR HIGHLY CORROSIVE ENVIRONMENTS

IP66	TYPE 4X				
PROTECTION	TYPE 4X	THERMAL	IP	WIPER	INTEGRATED CAM

ONVIF S

FEATURES

Electropolished AISI 316L stainless steel explosion proof P&T head

¾" NPT threaded hole for use of cable glands or conduit

Variable speed: 0.1°-100°/s Pan and Tilt

Extremely easy electrical connections directly into the unit, thanks to the explosion-proof inspection box

Dual independent video output

Thermal cameras:

- Sensor: Uncooled microbolometer (VOx)
- Lenses: 35mm, 25mm or 19mm
- Resolution 320x256 or 640x512

Day/Night camera:

- True Progressive Scan
- High resolution: up to 550 TVLines
- Advanced image stabilizer (Stable Zoom Mode)
- Day/Night (Auto ICR: automatic removal of IR filter)

Up to 2 simultaneous video streams

Position accuracy: 0.02°

OPTIONS:

IP based control, H.264/AVC and JPEG, 25fps, Full D1 (compatible with ONVIF protocol, Profile S)

IP based control, MPEG4/MJPEG, 25fps, Full D1 (compatible with Milestone XProtect Suite and ONVIF protocol)

Prewired certified versions with unarmored cable/barrier cable gland (except for UL versions)

DESCRIPTION

The MAXIMUS ex-proof PTZ cameras ensure excellent performance for monitoring critical processes in areas with risk of explosion, such as refineries, gas pipelines, oil tankers, offshore platforms, industrial processes, chemical industries, etc.

This model provides a dual vision in real time, incorporating a Day/Night camera and thermal camera for applications that require a field of view also in complete darkness, fog, rain, smoke or for large distances.

The area is always monitored, thanks to the speed and detection accuracy of the target.

All models are available in analog or IP version.

The flexible operator control of pan/tilt/zoom functions allows the video transmission over the local area network (LAN) or over the Internet with MPEG-4/MJPEG compression or with H.264/AVC compression, compatible with ONVIF Profile S.

The versions certified ATEX / IECEx / GOST-R / INMETRO / CNex are available with optional prewired unarmored cable/barrier cable gland (IEC/EN 60079-14). (Ref. ACCESSORIES: MPXCABL4, 4m, and MPXCABL10, 10m)

MPXT

CABLE INPUT

ATEX   IECEx   РСТ ГБ05   CNEX 国家防爆   Segurança INMETRO UL BR OCP-0029   c UL us LISTED

VIDEOTEC

TECHNICAL DATA

GENERAL

AISI 316 stainless steel construction

Passivated and electropolished external surfaces

Quick configuration and setup

Dynamic positioning control system

MECHANICAL

1 3/4" NPT hole for cable glands

Zero backlash

Horizontal rotation: 360° continous

Vertical rotation: -90° to +90°

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

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

Preset accuracy: 0.02°

12mm thick tempered glass window

8mm thick germanium window

Integrated wiper

Unit 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 for protocol
- VIDEOTEC MACRO: 250
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99
- AMERICAN DYNAMICS: 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

2 half-duplex serial RS-485 interfaces or full-duplex RS-422

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

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

MPXT, IP based control mode:
- Connection Ethernet port LAN 10/100T

Optical connector: ST (standard)

PROTOCOLS

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

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

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.

MPXT, IP based control mode:
- Compression MPEG-4/MJPEG
- Picture resolution:
- Full D1 (720x576)
- VGA (640x480)
- CIF (352x288)
- Image frame rate max 25fps at Full D1
- Web Server

MPX, IP H.264/AVC control:
- Compression H.264/AVC and JPEG
- Two independent video streams
- Image resolution: from Full D1 (720x576 for PAL, 720x480 for NTSC) to 352x240 in 18 steps
- Web Server
- Compatible with ONVIF protocol, Profile S

ENVIRONMENT

Indoor/Outdoor

Operating temperature: -40°C (-40°F)/+60°C (140°F)

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

CERTIFICATIONS

ATEX (EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31: 2009)
- ⟨Ex⟩ II 2 G Ex d IIC T6 T_a -40°C to +60°C Gb
- ⟨Ex⟩ II 2 D Ex tb IIIC T85°C T_a -40°C to +60°C Db
- IP66

IECEx (IEC 60079-0: 2011, 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

GOST-R (excluding versions MPX...Z00A with encoder H.264/AVC)
- 1 Ex d IIC T6 Gb X
- Ex tb IIIC T85°C Db X
- IP66

CNEx (excluding versions MPX...Z00A with encoder H.264/AVC)
- Ex d IIC T6 Gb Tamb-40~60°C
- DIP A21 TA T6 Tamb-40~60°C

INMETRO (excluding versions MPX...Z00A with encoder H.264/AVC)
- Ex d IIC T6 Gb Ta -40°C a/to +60°C
- Ex tb IIIC T85°C Db Ta -40°C a/to +60°C
- IP66

cULus Listed, TYPE 4X (only for 24Vac version and excluding versions MPX...Z00A with encoder H.264/AVC

UL listed for USA (only for 24Vac version and excluding versions MPX...Z00A with encoder H.264/AVC):
- Class I, Zone 1, AEx d IIC T6
- Zone 21, AEx tb IIIC T85°C

UL listed for Canada (only for 24Vac version and excluding versions MPX...Z00A with encoder H.264/AVC):
- Class I, Zone 1, Ex d IIC T6 Gb
- Class II, Groups E, F and G

VIDEOTEC CCTV PRODUCTS

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

WASEX2T4AT	Tank 10l with integrated manual pump controlled by ATEX certified solenoid-valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc
WASEX2T4GOR	Tank 10l with integrated manual pump controlled by GOST-R certified solenoid-valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc
WASEX2T4IN	Tank 10l with integrated manual pump controlled by INMETRO certified solenoid-valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc

OCTEXA3/4C	Cable gland with gasket EX 3/4" NPT, armoured cable IECEX-ATEX-GOST
OCTEX3/4C	Cable gland with gasket EX 3/4" NPT, unarmoured 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
MPXCABL4	Cabling for MPX/MPXT, 4m (157.5in) (unarmoured cable and barrier cable gland): 2 ethernet cables, 3 power supply wires, 2 coaxial video cables, 15 wires for relays alarms and telemetry
MPXCABL10	Cabling for MPX/MPXT, 10m (394in) (unarmoured cable and barrier cable gland): 2 ethernet cables, 3 power supply wires, 2 coaxial video cables, 15 wires for relays alarms and telemetry

PACKAGE

Model Number	Weight	Dimensions (WxHxL)	Master carton
MPXT1QAW000A	35kg (77lb)	54x31x49cm	-

MAXIMUS MPXT - CONFIGURATION OPTIONS

	Voltage		Day/Night camera		Thermal Camera					Video output		Thermal camera frame rate
MPXT	1	230Vac	P	Day/Night camera 36x optical zoom lens, PAL	A	Thermal camera 35mm, 320x256	W	With wiper	0	0	Analog control	**00A** - 7.5-8.3Hz
	2	24Vac	Q	Day/Night camera 28x optical zoom lens, PAL	B	Thermal camera 25mm, 320x256				X	IP MPEG4 control	H 25-30Hz
	3	120Vac	N	Day/Night camera 36x optical zoom lens, NTSC	D	Thermal camera 35mm, 640x512				Z	IP H.264/AVC, Protocol ONVIF Profile S [1]	
			M	Day/Night camera 28x optical zoom lens, NTSC	E	Thermal camera 25mm, 640x512						
					V	Thermal camera 19mm, 320x256						

1   The MPX ... Z00A versions are ATEX and IECEx certified;
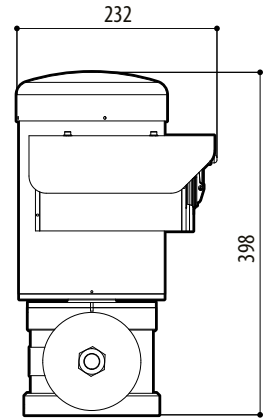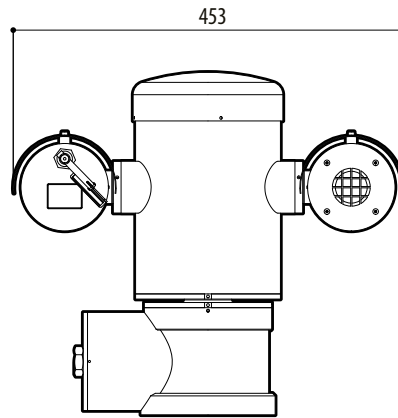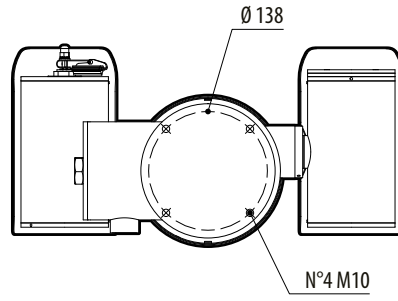   GOST-R, CNEx, INMETRO and cULusListed pending.

3/4" NPT CABLE GLAND SELECTION LAYOUT

Zone, Gas	Cable gland type	Certification	Operating temperature	Cable	Cable glands part code	Diameter of the external cable	Under armor cable diameter
IIC, Zone 1 or Zone 2 IIB or IIA, Zone 1	Barrier	IECEX/ATEX/GOST	From -60°C (140°F) a +80°C (+176°F)	Not armored	OCTEXB3/4C	From 13mm (0.5in) a 20.2mm (0.8in)	–
				Armored	OCTEXBA3/4C	From 16.9mm (0.7in) a 26mm (1in)	–
IIB or IIA, Zone 2	With gasket	IECEX/ATEX/GOST	From -60°C (140°F) a +100°C (212°F)	Not armored	OCTEX3/4C	From 13mm (0.5in) a 20.2mm (0.8in)	–
				Armored	OCTEXA3/4C	From 16.9mm (0.7in) a 26mm (1in)	From 11.1mm (0.4in) a 19.7mm (0.8in)
		ATEX	From -20°C (-4°F) a +80°C (+176°F)	Not armored	OCTEX3/4	From 14mm (0.6in) a 17mm (0.7in)	–
				Armored	OCTEXA3/4	From 18mm (0.7in) thick glass a 23mm (0.9in)	From 14mm (0.6in) a 17mm (0.7in)

DAY/NIGHT CAMERA FEATURES

	Day/Night 36x		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)		Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)	
High horizontal resolution	Up to 550 TV Lines		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. Color illumination (IR-Cut Filter = OFF)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s	0.25Lux / 1/50s 0.16 Lux / 1/3s	0.25Lux / 1/60s 0.16 Lux / 1/4s
Min. B/W illumination	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
"Shutter Time" automatic increase to improve the night surveillance	✓		✓	
S/N ratio	Greater than 50dB		Greater than 50dB	
AE control	Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual		Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual	
Back light compensation	On/Off		On/Off	
Spherical masking (3D) of Privacy zones with automatic upgrade	✓		✓	
Privacy Zone Masking	On/Off (24 positions)		On/Off (24 positions)	
Maximum number of masking blocks to be displayed	8		8	
Resolution of masking blocks	160x120 HxV		160x120 HxV	
Masking	Up to 15 different masking types: 14 colour types or mosaic		Up to 15 different masking types: 14 colour types or mosaic	
Focusing system	Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual		Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual	
"Smart" lens control	Automatic Lens Reset		Automatic Lens Reset	
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		1/1 ÷ 1/10000s	

VIDEOTEC CCTV PRODUCTS

THERMAL CAMERAS AVAILABLE (RESOLUTION 320X256)

	Lens 35mm		Lens 25mm		Lens 19mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	320x256	320x240	320x256	320x240	320x256	320x240
Pixel dimensions	25µm		25µm		25µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40℃ ÷ +160℃ (-40°F ÷ +320°F)		-40℃ ÷ +160℃ (-40°F ÷ +320°F)		-40℃ ÷ +160℃ (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40℃ ÷ +550℃ (-40°F ÷ +1022°F)		-40℃ ÷ +550℃ (-40°F ÷ +1022°F)		-40℃ ÷ +550℃ (-40°F ÷ +1022°F)	
Horizontal field of view	13°		18°		24°	
Vertical field of view	10°		14°		18°	
F-number	F/1.2		F/1.1		F/1.25	
Thermal sensitivity (NEdT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Person (detection / recognition / identification)	800m / 200m / 105m		590m / 148m / 75m		450m / 112m / 56m (1476ft / 367ft / 184ft)	
Auto (detection / recognition / identification)	2250m / 590m / 290m (7382ft / 1936ft / 951ft)		1650m / 430m / 215m (5413ft / 1411ft / 705ft)		1280m / 330m / 165m (4199ft / 1083ft / 541ft)	

THERMAL CAMERAS AVAILABLE (RESOLUTION 640X512)

	Lens 35mm		Lens 25mm	
	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	640x512	640x480	640x512	640x480
Pixel dimensions	17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓	
Digital Zoom	2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40℃ ÷ +160℃ (-40°F ÷ +320°F)		-40℃ ÷ +160℃ (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40℃ ÷ +550℃ (-40°F ÷ +1022°F)		-40℃ ÷ +550℃ (-40°F ÷ +1022°F)	
Horizontal field of view	18°		25°	
Vertical field of view	14°		20°	
F-number	F/1.2		F/1.1	
Thermal sensitivity (NEdT)	< 50mK a f/1.0		< 50mK a f/1.0	
Person (detection / recognition / identification)	1140m / 280m / 142m (3740ft / 919ft / 466ft)		820m / 210m / 104m	
Auto (detection / recognition / identification)	3000m / 800m / 200m (9843ft / 2625ft / 656ft)		2200m / 580m / 290m (7218ft / 1903ft / 951ft)	

Ø 138

N°4 M10

453

232

398

MAXIMUS MPXT

Sizes in millimeters.