MAXIMUS MPXHD

EXPLOSION-PROOF FULL HD PTZ CAMERA

VIDEOTEC

FULL HD 1080P

Ex | IP66 | TYPE 4X | | | IP
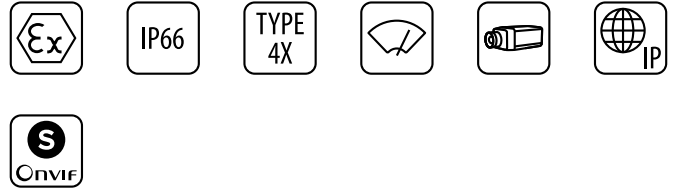
S ONVIF

FULL HD 1080P

MPXHD

DESCRIPTION

MAXIMUS MPXHD is a Full HD ex-proof PTZ which produces high definition images and is ideal for effective video surveillance and process control in harsh settings where the presence of gases or flammable dust can create a potentially explosive environment (a reality often found in the oil and gas industries or marine and industrial sectors)

The Full HD, 1080p, 60fps camera incorporates an outstanding 30x optical zoom, able to accurately identify the smallest details in a scene, with the ability to transmit images via Ethernet, H.264/AVC and MJPEG compression and ONVIF Profile S compatibility to allow for use with third-party products. The response to the operator's commands is instantaneous, for a fast and accurate detection of a target in all conditions.

The care taken in the design, the choice of high quality components and the strong, the AISI 316L stainless steel construction with IP66 protection guarantees perfect operation and durability in temperatures ranging from -40°C to +60°C.

Thanks to the built-in wiper, images are always perfectly clear; also available is the WASEX washer kit with certified explosion-proof pump, which reduces the need for maintenance.

The ATEX/IECEx/EAC Ex/INMETRO certified versions are available as pre-wired options, with armoured cable and barrier cable gland, simplifying installation and making these PTZ cameras the perfect solution for use in the most demanding video surveillance installations, and in the most extreme conditions.

The MAXIMUS MPX series products are Lloyd's Register Type Approval System Test Specification Number 1 certified and therefore can be used in Marine and Offshore applications for environmental categories ENV1, ENV2, ENV3 and ENV5

CERTIFICATIONS

ATEX | IECEx | EAC Ex | INMETRO | KCs | c UL us LISTED | LR APPROVED TYPE APPROVAL SCHEME

FEATURES

Certifications for use in Zone 1 and 2, Group IIC T6 (Gas), and in Zone 21 and 22, Group IIIC T85° (Dust)

Marine Certification: Lloyd's Register Marine Type Approval

Electropolished AISI 316L stainless steel ex-proof PTZ unit

Camera Full HD 1080p, 30x, 60fps

Minimum Illumination:
- Colour: 1.4lx, F1.6 AGC on, 1/30s 50 IRE (Normal mode)
- Colour: 0.35lx, F1.6 AGC on, 1/30s, 50 IRE (High Sensitivity mode)
- B/W: 0.05lx, F1.6 AGC on, 1/30s, 50 IRE (Normal mode)
- B/W: 0.013lx, F1.6 AGC on, 1/30s, 50 IRE (High sensitivity mode)

Day/Night (Auto ICR: automatic removal of IR filter)

Video compression H.264/AVC and MJPEG

Certified ONVIF, Profile S

Up to 4 simultaneous video streams

1 alarm input and 1 relay output

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

Position accuracy: 0.02°

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

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

Integrated wiper

Total control of the auxiliary functions through the Videotec PTZ ASSISTANT

Operating temperature: from -40°C (-40°F) up to +60°C (140°F)

Options:
- Prewired versions with armoured cable and barrier cable gland (IEC/EN 60079-14) (except for UL versions). Option supplied as accessory

TECHNICAL DATA

GENERAL

AISI 316L stainless steel construction

Passivated and electropolished external surfaces

Dynamic positioning control system

MECHANICAL

1 3/4" NPT hole for cable glands

Zero backlash

Horizontal rotation: 360°, continuous rotation

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

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

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

Accuracy of preset positions: 0.02°

12mm (0.47in) thick tempered glass window

Integrated wiper

Unit weight: 27kg (60lb)

ELECTRICAL

Supply voltage/Current consumption
- 230Vac, 0.5A, 50/60Hz
- 24Vac, 5A, 50/60Hz
- 120Vac, 1A, 50/60Hz

Power consumption:
- 120W max

NETWORK

Connector:
- RJ45, 10BASE-T/100BASE-T

VIDEO

Video encoder
- Communication protocol: ONVIF, Profile S
- Device configuration: TCP/IPv4-IPv6, UDP/IPv4-IPv6, HTTP, NTP, DHCP, WSDISCOVERY, QoS, IGMP (Multicast)
- Streaming: RTSP, RTCP, RTP/IPv4
- Video compression: H.264/AVC, MJPEG
- 2 independent video streams Full HD or 4 independent video streams depending on the configuration
- Image resolution: from FullHD to 352x240 in 18 steps
- Selectable frame rate from 1 to 60 images per second (fps)
- Web Server

I/O INTERFACE

I/O alarm board
- Alarm inputs: 1
- Relay outputs: 1 (1A, 30Vac/60Vdc max)

CAMERAS

Day/Night Full HD 30x

Resolution: Full HD 1080p (1920x1080)

Image Device: 1/2.8 type Exmor™ CMOS sensor

Effective Pixels: approx. 2.38 Megapixels

Minimum Illumination, colour (ICR-OFF):
- 1.4lx, 1/30s, 50 IRE (Normal mode)
- 0.35lx, 1/30s, 50 IRE (High sensitivity mode)
- 0.19lx, 1/3s, 50 IRE (Normal mode)
- 0.05lx, 1/3s, 50 IRE (High sensitivity mode)

Minimum Illumination, B/W (ICR-ON):
- 0.05lx, 1/30s, 50 IRE (Normal mode)
- 0.013lx, 1/30s, 50 IRE (High sensitivity mode)
- 0.002lx, 1/3s, 30 IRE (High sensitivity mode)

Lens: f=4.3 mm (wide) ~ 129.0 mm (tele), from F1.6 to F4.7

Zoom: 30x (360x with digital zoom)

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

Minimum object distance: from 10mm (wide) up to 1200mm (tele)

Shutter speed: 1/1 to 1/10000 s, 22 steps

White balance: Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium vapor lamp (Fix, Auto, Outdoor Auto), One-push, Manual

Gain: Auto, Manual, Gain Limit (from 3dB up to 43dB, steps: 3dB)

Wide Dynamic Range: On/Off/Visibility enhancer, Light level, Brightness Compensation selection, Compensation level

Focus System: Auto (Sensitivity: Normal, Low), One-push AF, Manual, Focus compensation with ICR On, Interval AF, Zoom trigger AF

Picture Effects: E-flip, Mirror image, Color enhancement

Exposure Control: Auto, EV Compensation, Manual, Priority (Shutter priority, Iris priority), Brightness, Slow AE

S/N Ratio: more than 50dB

Wide-D (wide dynamic range): Yes (130dB)

De-fog: Yes (On/Off)

Backlight Compensation: Yes

ENVIRONMENT

For installation indoors and outdoors

Operating temperature: from -40°C (-40°F) up to +60°C (140°F)

Relative humidity: from 10% up to 95% (no condensation)

CERTIFICATIONS

ATEX (EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-31: 2014):

    ⟨Ex⟩ II 2 G Ex db IIC T6 Gb T_a -40°C to +60°C

    ⟨Ex⟩ II 2 D Ex tb IIIC T85°C Db T_a -40°C to +60°C

    IP66

IECEx (IEC 60079-0: 2011, IEC 60079-1: 2014-06, IEC 60079-31: 2013):

    Ex db IIC T6 Gb T_a -40°C to +60°C

    Ex tb IIIC T85°C Db T_a -40°C to +60°C

    IP66

EAC EX:

    Ex II 2G Ex db IIC T6 Gb T_a -40°C to +60°C, IP66

    Ex II 2D Ex tb IIIC T85°C Db T_a -40°C to +60°C, IP66

INMETRO:

    Ex db IIC T6 Gb -40 °C ≤ T_a ≤ +60 °C

    Ex tb IIIC T85°C Db -40 °C ≤ T_a ≤ +60 °C

    IP66

cULus Listed, TYPE 4X (only for 24Vac version)

UL listed for USA (only for 24Vac version):

    Class I, Zone 1, AEx d IIC T6

    Zone 21, AEx tb IIIC T85°C

    Class I, Division 2, Groups A, B, C, and D, T6

    Class II, Division 2, Groups E, F and G, T6

UL listed for Canada (only for 24Vac version):

    Ex db IIC T6 Gb

    Ex tb IIIC T85°C Db

    Class I, Division 2, Groups A, B, C, and D, T6

    Class II, Division 2, Groups E, F and G, T6

KCs 16- KA4B0-0313X - 16- KA4B0-0314X

    Ex d IIC T6

    Ex tb IIIC T85°C

    -40 °C ≤ T_a ≤ +60 °C

Lloyd's Register Marine Type Approval (the 24Vac versions require a filter accessory FM1010)

    • Test Specification Number 1:2015 (ENV1, ENV2, ENV3, ENV5)

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 (2.6gal) with integrated manual pump controlled by ATEX certified solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc
WASEX2T4GOR	Tank 10l (2.6gal) with integrated manual pump controlled by EAC EX certified solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc
WASEX2T4IN	Tank 10l (2.6gal) with integrated manual pump controlled by INMETRO certified solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc
OCTEX3/4C	Cable gland in nickel-plated brass with gasket EX 3/4" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXA3/4C	Cable gland in nickel-plated brass with gasket EX 3/4" NPT, armoured cable IECEX-ATEX-EAC Ex
OCTEXB3/4C	Barrier cable gland in nickel-plated brass 3/4" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXBA3/4C	Barrier cable gland in nickel-plated brass 3/4" NPT, armoured cable IECEX-ATEX-EAC Ex
OCTEX3/4	Cable gland in nickel-plated brass with gasket EX 3/4" NPT, unarmoured cable ATEX
OCTEXA3/4	Cable gland in nickel-plated brass with gasket EX 3/4" NPT, armoured cable ATEX
OCTEXB1/2C	Barrier cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEX1/2C	Cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXS1/2C	Cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXA1/2C	Cable gland in nickel-plated brass EX 1/2" NPT armoured cable IECEX-ATEX-EAC Ex
OCTEX1/2-3/4C	Cable glands reduction in nickel-plated brass 3/4" - 1/2" NPT IECEX-ATEX-EAC Ex
OCTEXP3/4C	Conduit cable gland nickel-plated brass 3/4" NPT IECEX-ATEX- c CSA us - EAC Ex (operating temperature: from -60°C (-76°F) up to +80°C (+176°F))
OEXPLUG3/4	Plug EX 3/4" NPT IECEX-ATEX-EAC Ex
MPXCABLARM4	Cabling for MPX/MPXHD, 4m (13ft) (armoured cable and barrier cable gland): 1 Ethernet cable, 3 power supply wires, 1 coaxial video cable, 7 wires for alarms, relay and telemetry
MPXCABLARM10	Cabling for MPX/MPXHD, 10m (394in) (armoured cable and barrier cable gland): 1 Ethernet cable, 3 power supply wires, 1 coaxial video cable, 7 wires for alarms, relay and telemetry
FM1010	EMC filter for Marine certification

For further details about cable glands part numbers, please refer to the relevant table.

PACKAGE

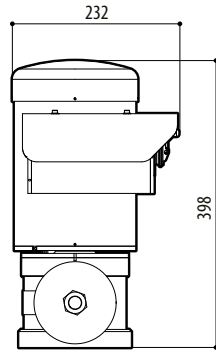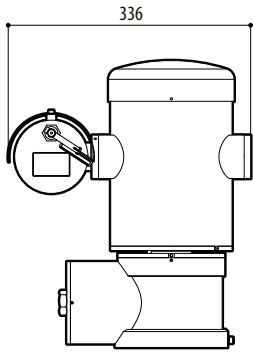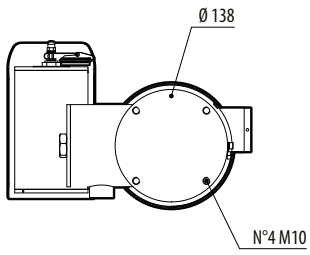| Model Number	Weight	Dimensions (WxHxL)	Master carton
MPXHD1FVW0Z00A	30.4kg (67lb)	54x31x49cm (21x12x19in)	-

1/2" NPT CABLE GLAND SELECTION GUIDE

Cable gland type	Certification	Operating temperature	Cable	Cable glands product code	Diameter of the external cable (mm)	Under armor cable diameter (mm)
Barrier	IECEX/ATEX/EAC Ex	-60°C / +80°C (-76°F / +176°F)	Unarmoured cable	OCTEXB1/2C	3 - 8 (0.12 - 0.3in)	–
With gasket	IECEX/ATEX/EAC Ex	-60°C / +100°C (-76°F / +212°F)	Unarmoured cable	OCTEX1/2C	3.2 - 8 (0.13 - 0.3in)	–
			Unarmoured cable	OCTEXS1/2C	6.5 - 11.9 (0.26 - 0.47in)	–
			Armoured cable	OCTEXA1/2C	12.5 - 20.5 (0.49 - 0.8in)	10 - 14.3 (0.4 - 0.56in)

3/4" NPT CABLE GLAND SELECTION GUIDE

Cable gland type	Certification	Operating temperature	Cable	Cable glands product code	Diameter of the external cable (mm)	Under armor cable diameter (mm)
Barrier	IECEX/ATEX/EAC Ex	-60°C / +80°C (-76°F / +176°F)	Unarmoured cable	OCTEXB3/4C	13 - 20.2 (0.5 - 0.8in)	–
			Armoured cable	OCTEXBA3/4C	16.9 - 26 (0.67 - 1in)	–
With gasket	IECEX/ATEX/EAC Ex	-60°C / +100°C (-76°F / +212°F)	Unarmoured cable	OCTEX3/4C	13 - 20.2 (0.5 - 0.8in)	–
		-60°C / +80°C (-76°F / +176°F)	Armoured cable	OCTEXA3/4C	16.9 - 26 (0.67 - 1in)	11.1 - 19.7 (0.44 - 0.78in)
	ATEX	-40°C / +100°C (-40°F / +212°F)	Unarmoured cable	OCTEX3/4	14 - 17 (0.55 - 0.67in)	–
			Armoured cable	OCTEXA3/4	18 - 23 (0.7 - 0.9in)	14 - 17 (0.55 - 0.67in)

MAXIMUS MPXHD - CONFIGURATION OPTIONS

	Voltage		Camera					Video Output	
MPXHD	**1**	230Vac	**F**	Day/Night camera 30X zoom, FullHD	**V**	With alarm board	**W**	With wiper	**0**	**Z** IP H.264/AVC, Protocol ONVIF Profile S	**00A**
	2	24Vac							
	3	120Vac							

TECHNICAL DRAWINGS

The dimensions of the drawings are in millimetres.

Ø 138

N°4 M10

336

232

398

MAXIMUS MPXHD