MAXIMUS MHX

STAINLESS STEEL EX-PROOF CAMERA

4X Type 4X | IP66 IP67 PROTECTION | INTEGRATED CAM | WIPER

CERTIFICATIONS

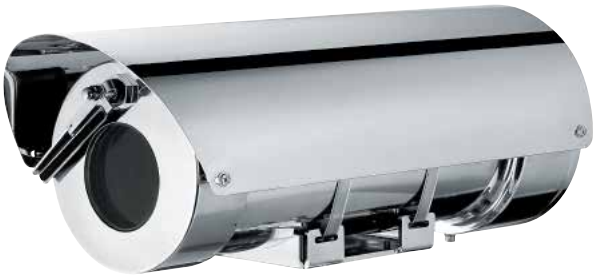
Made of AISI 316L electropolished stainless steel
Integrated Day/Night camera 10x, 1/3"
2 ¾" NPT threaded holes for use of cable glands or conduit
Integrated telemetry receiver for version with wiper
Sunshield and heater included
IP66/IP67

OPTIONS:

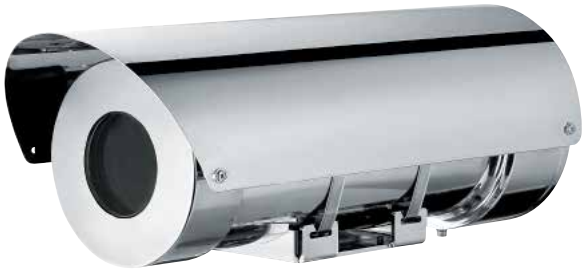
Housing without camera
Wiper

DESCRIPTION

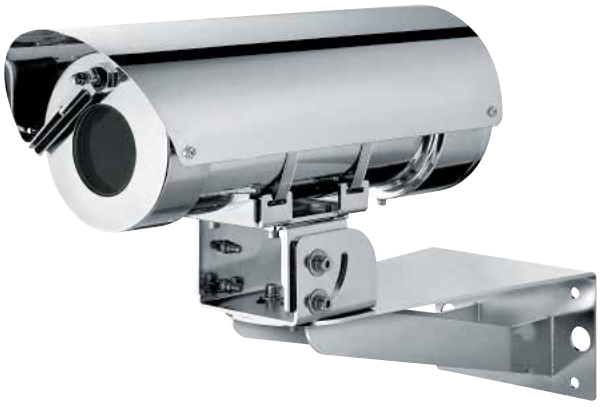
These explosion-proof cameras of MAXIMUS series have been certified and designed to meet the strictest standards regarding installation in potentially explosive environments, given the presence of gas and flammable dusts.
The MAXIMUS range ensures excellent performance for monitoring critical processes in areas with risk of explosion, such as refineries, gas pipelines, oil tankers, offshore platforms, industrial processes, chemical industries, etc.
Equipped with heating, the housing has the same installation and operating temperatures, comprised between -40° C and + 60° (-40°F / +140°F).
In the version with wiper, MHX is equipped with an integrated telemetry receiver that allows, through the RS485 serial interface, to receive data from the remote control for the activation of the wiper / washer and for switching an eventual external illuminator (or controlled from the Day \ Night camera switch).
The wiring is made easier thanks to the removable connectors on the circuit board.
The control board, with removable connectors, is also equipped with an input for the wiper activation through a dry contact.
The housing can eventually be controlled by VMS through a video encoder with RS485 serial port.



MHX



MHX



MHX + MHXWBS

ATEX | IECEx | Segurança INMETRO | cULus LISTED

TECHNICAL DATA

GENERAL

AISI 316 stainless steel construction

Passivated and electropolished external surfaces

Silicone O-ring seals

MECHANICAL

2 3/4" NPT holes for cable entry

Sunshield

Unit weight: 16.5kg (36lb)

HOUSING'S WINDOW

- Material: Tempered glass

Dimensions

- Diameter: 75mm (3.0in)
- Thick: 12mm

ELECTRICAL

Power supply/Current consumption:

- 230Vac, 0.34A, 50/60Hz
- 120Vac, 0.5A, 50/60Hz
- 24Vac, 2.2A, 50/60Hz

Power absorbed by heating (Ton 10°C±4°C (50°F±7°F), Toff 22°C±3°C (77°F±5°F))

- 230Vac: 60W max
- 120Vac: 40W max
- 24Vac: 30W max

COMMUNICATIONS

Serial interface: 1 RS-485 line, half-duplex

Addressable units: Up to 31, via dip-switch

PROTOCOLS

PELCO D: 2400baud, 9600baud

VIDEOTEC MACRO: 9600baud, 38400baud

PELCO is registered trademark.

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.

I/O INTERFACE

Version with wiper

- Remote wiper activation: 1 input, dry contact NO
- Day/Night camera status: 1 input
- Wash system activation relay: 1 output, 60Vdc max o 30Vac max, 1A
- Illuminator activation relay: 1 output, 60Vdc max o 30Vac max, 1A

CAMERA

Installable cameras in versions without it:

- Power consumption (assembly, camera and lens): 13W max
- Cameras dimensions/Lenses that can be installed (WxHxL): 80x82x245mm (3.1x3.2x9.6in) max
- Minimum distance between camera and housing's window: 10mm (0.4in)

ENVIRONMENT

Indoor/Outdoor

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

Operating temperature/Installation temperature (MHX2-AU, in 24Vac and with pre-installed camera): from -40°C (-40°F) a +54°C (129°F)

CERTIFICATIONS

ATEX (only MHX...A versions):

EN 60079-0:2012+A11:2013, EN 60079-1:2007, EN 60079-31:2009

Ⓔx II 2 G Ex d IIC T6 Gb Ta -40°C to +60°C

Ⓔx II 2 D Ex tb IIIC T85°C Db Ta -40°C to +60°C

IP66/IP67 (EN60529:1991/A1 2001)

IECEX (only MHX...A versions):

IEC 60079-0 : 2011 Ed 6.0, IEC 60079-1 : 2007-04 Ed 6, IEC 60079-31 : 2008 Ed 1

Ex d IIC T6 Gb Ta -40°C to +60°C

Ex tb IIIC T85°C Db Ta -40°C to +60°C

IP66/IP67 (IEC60529:1991/A1 2001)

INMETRO (only MHX...A versions):

Ex d IIC T6 Gb

Ex tb IIIC T85°C Db

Tamb -40°C a +60°C

IP66/IP67

cULus Listed, TYPE 4X (only MHX2...A-U versions, in 24Vac and with pre-installed camera):

UL listed for USA

Class I, Zone 1, AEx d IIC T6

Zone 21, AEx tb IIIC T85°C

UL listed for Canada

Class I, Zone 1, Ex d IIC T6

Class II, Group E, F and G

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
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
USB485	USB-RS485 converter
OEXPLUG3/4	Plug EX 3/4" NPT IECEX, ATEX, GOST

BRACKETS AND ADAPTORS

MHXWBS	AISI 316L stainless steel wall bracket
MPXCW	AISI 316L stainless steel corner adapter module
MPXCOL	AISI 316L stainless steel pole adapter module
MHXWFWCA	Ball joint in AISI316L stainless steel
NXFWBT	AISI 316L stainless steel parapet mounting bracket

MAXIMUS MHX - CONFIGURATION OPTIONS						
	Voltage	Certification	Options		Day/Night camera 10x	
MHX	1 230Vac	C IIC -40°C	S Without wiper	0 With sunshield	00 Without camera	A ATEX / IECEX / INMETRO
	2 24Vac		W With wiper		B0 Day/Night camera 10x optical zoom lens, PAL	A-U UL Listed for USA and CANADA [1]
	3 120Vac				K0 Day/Night camera 10x optical zoom lens, NTSC	

1 MHX2-AU, only versions in 24Vac and with pre-installed camera. Operating temperature -40°C / +54°C (-40°F / 122°F)

DAY/NIGHT CAMERA FEATURES		
	Day/Night 10x High sensitivity	
	PAL	NTSC
Optical zoom	10x	
White balance	Auto, ATW, Indoor, Outdoor	
High horizontal resolution	Up to 530 TV Lines	
Day/Night (Auto ICR)	✓	
Image Sensor	1/3" Super HAD CCD II	
Number of effective Pixels	~ 440000 pixel	~ 380000 pixel
Min. Color illumination (IR-Cut Filter = OFF)	0.25Lux / 1/50s 0.015 Lux / 1/3s	0.25lux / 1/60s 0.015 Lux / 1/4s
Min. B/W illumination	0.0004 Lux / 1/3s	0.0004 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	
"Smart" lens control	Automatic Lens Reset	
Optical zoom	10x, f=5.1 (wide) to 51mm (tele) / F1.8 to F2.1	
Digital Zoom	12x (120x with optical zoom)	
Angle of view (A)	52 degrees (wide) to 5.4 degrees (tele)	
Minimum object distance	150mm (5.9in) (wide) to 800mm (31.5in) (tele)	
Electronic Iris Speed	1/1 ÷ 1/10000s	

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)

For a correct installation of the MHX/MHXT housing, cable entries and field wiring must be suitable for an operating temperature of at least +30°C above ambient.

TECHNICAL DRAWINGS

Sizes in millimeters.