



MAXIMUS MHX Caisson caméra antidéflagrant

Mode de protection:

Type de protection:	EX II 2 G Ex d IIC T6 Gb EX II 2 D Ex tb IIIC T85°C Db
Classe de température:	T6
Indice de protection:	IP66
Temp ambiante :	-40/+60°C
Zones :	1-2-21-22

Description:

These explosion-proof housings of MAXIMUS range 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°C.



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.

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.

Features :

Made of AISI 316L electropolished stainless steel
2 3/4" NPT threaded holes for use of cable glands or conduit
Integrated telemetry receiver for version with wiper
Sunshield and heater included
Power supply: 230Vac, 24Vac or 120Vac
Environment temperature: -40°C / +60°C.

Optionnal :

Wiper





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Technicals data :

General

AISI 316L 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 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
VIDEOTECH MACRO: 9600baud, 38400baud
PELCO is registered trademark.

The product may be interfaced with devices not manufactured by VIDEOTECH. It is possible that the interface protocols have changed or are in a different configuration from earlier tested units by VIDEOTECH. VIDEOTECH recommends a test prior to installation. VIDEOTECH 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 or 30Vac max, 1A
- Illuminator activation relay: 1 output, 60Vdc max or 30Vac max, 1A

Camera

Compatible cameras:

- 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) up to +60°C (140°F)
Operating temperature/Installation temperature (MHX2...A-U, in 24Vac and with preinstalled camera by Videotec): from -40°C (-40°F) up to +54°C (129°F)

Certifications

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

IECEX (IEC 60079-0: 2011 Ed.6, 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 (EN60529:1991/A1 2001)

INMETRO (ABNT NBR IEC 60079-0:2008 + Errata 1:2011, ABNT NBR IEC 60079-1:2009 + Errata 1:2011, ABNT NBR IEC60079-31:2011):
Ex d IIC T6 Gb -40°C à/to +60°C
Ex tb IIIC T85°C Db -40°C à/to +60°C
IP66/IP67

cULus Listed, TYPE 4X (only versions MHX2...A-U, in 24Vac with pre-installed camera by Videotec)
UL listed for USA (only versions MHX2...A-U, in 24Vac with pre-installed camera by Videotec):
Class I, Zone 1, AEx d IIC T6
Zone 21, AEx tb IIIC T85°C
UL listed for Canada (only versions MHX2...A-U, in 24Vac with pre-installed camera by Videotec):
Ex d IIC T6 Gb
Class II, Groups E, F and G
EAC EX:
Ex d IIC T6 Gb
Ex tb IIIC T85 Db



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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 EAC EX 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

OCTE X3/4C Cable gland with gasket EX 3/4" NPT, unarmoured cable IECEX-ATEX-EAC Ex

OCTE XA3/4C Cable gland with gasket EX 3/4" NPT, armoured cable IECEX-ATEX-EAC Ex

OCTE XB3/4C Barrier cable gland 3/4" NPT, unarmoured cable IECEX-ATEX--EAC Ex

OCTE XBA3/4C Barrier cable gland 3/4" NPT, armoured cable IECEX-ATEX-EAC Ex

OCTE X3/4 Cable gland with gasket EX 3/4" NPT, unarmoured cable ATEX

OCTE XA3/4 Cable gland with gasket EX 3/4" NPT, armoured cable ATEX

OCTE XB1/2C Barrier cable gland EX 1/2" NPT unarmoured cable ATEX-IECEX-EAC Ex

OCTE X1/2C Cable gland with gasket EX 1/2" NPT unarmoured cable ATEX-IECEX-EAC Ex, with gasket from 3 to 8mm (0.12 to 0.31in)

OCTE XS1/2C Cable gland with gasket EX 1/2" NPT unarmoured cable ATEX-IECEX-EAC Ex, with gasket from 7.5 to 11.9mm (3 to 4.7in)

OCTE X1/2-3/4C Cable glands reduction in nickel-plated brass 3/4" - 1/2" NPT IECEXATEX-EAC Ex

OEXPLUG3/4 Plug EX 3/4" NPT IECEX-ATEX-EAC Ex

USB485 USB-RS485 converter

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 AISI316L stainless steel ball joint
NXFWBT AISI 316L stainless steel parapet mounting bracket

Package :

Reference MXH
Weight 19kg
Dimensions (WxHxL) 580x340x220mm

AVAILABLE MODELS						
Model Number	230Vac	24Vac	120Vac	Wiper	Sunshield	ATEX / IECEX / EAC EX / INMETRO
MHX1CS000A	✓	-	-	-	✓	✓
MHX1CW000A	✓	-	-	✓	✓	✓
MHX2CS000A	-	✓	-	-	✓	✓
MHX2CW000A	-	✓	-	✓	✓	✓
MHX3CS000A	-	-	✓	-	✓	✓
MHX3CW000A	-	-	✓	✓	✓	✓



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MAXIMUS MHX CERTIFICATIONS AND MARKINGS

Certification	Markings	Product Nr. Ending
ATEX	Ex II 2 G Ex d IIC T6 Gb Ta -40°C to +60°C, Ex II 2 D Ex tb IIIC T85°C Db Ta -40°C to +60°C	...A
IECEX	Ex d IIC T6 Gb Ta -40°C to +60°C, Ex tb IIIC T85°C Db Ta -40°C to +60°C	...A
EAC Ex	Ex d IIC T6 Gb, Ex tb IIIC T85 Db	...A
INMETRO	Ex d IIC T6 Gb -40°C à/to +60°C, Ex tb IIIC T85°C Db -40°C à/to +60°C	...A
UL listed for USA (only 24Vac)	Class I, Zone 1, AEx d IIC T6, Zone 21, AEx tb IIIC T85°C	...A-U ¹
UL listed for Canada (only 24Vac)	Class I, Zone 1, Ex d IIC T6 Gb, Class II, Groups E, F and G	...A-U ¹

¹ UL Certifications only for 24Vac versions and with pre-installed camera by Videotec. Operating temperature -40°C / + 54°C (-40°F / 122°F)

3/4" NPT CABLE GLAND SELECTION GUIDE

Zone, Gas	Cable gland type	Certification	Operating temperature	Cable	Cable glands part code	Diameter of the external cable (mm)	Under armor cable diameter (mm)
IIC, Zone 1 or Zone 2 IIB or IIA, Zone 1	Barrier	IECEX/ATEX/EAC	-60°C / +80°C (-76°F / +176°F)	Not armoured	OCTEXB3/4C	13 - 20.2	-
				Armored	OCTEXBA3/4C	16.9 - 26	-
IIB or IIA, Zone 2	With gasket	IECEX/ATEX/EAC	-60°C / +100°C (-76°F / +212°F)	Not armoured	OCTEX3/4C	13 - 20.2	-
				Armored	OCTEXA3/4C	16.9 - 26	11.1 - 19.7
		ATEX	-20°C / +80°C (-4°F / +176°F)	Not armoured	OCTEX3/4	14 - 17	-
				Armored	OCTEXA3/4	18 - 23	14 - 17

1/2" NPT CABLE GLAND SELECTION GUIDE

Zone, Gas	Cable gland type	Certification	Operating temperature	Cable	Cable glands part code	Diameter of the external cable (mm)
IIC, Zone 1 or Zone 2 IIB or IIA, Zone 1	Barrier	IECEX/ATEX/EAC	-60°C / +80°C (-76°F / +176°F)	Not armoured	OCTEXB1/2C	3 - 8
				Not armoured	OCTEX1/2C	3 - 8
IIB or IIA, Zone 2	With gasket	IECEX/ATEX/EAC	-60°C / +100°C (-76°F / +212°F)	Not armoured	OCTEXS1/2C	7.5 - 11.9
				Not armoured	OCTEXS1/2C	7.5 - 11.9

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.

Drawing :

