MAXIMUS MHXT
EX-PROOF HOUSING FOR THERMAL CAMERAS

TYPE 4X PROTECTION | IP66 IP67 PROTECTION | THERMAL

MAIN FEATURES

- Certifications Ex d for use in Zone 1 and 2, Group IIC (Gas), and in Zone Ex tb 21 and 22 (Dust)
- Made of AISI 316L electropolished stainless steel
- Germanium window with protection grid
- Integrated telemetry receiver
- 2 ¾" NPT threaded holes for use of cable glands or conduit
- Sunshield and heater included
- Environment temperature: -40°C / +60°C (-40°F / +140°F)
- Internal usable area (WxHxL): 80x82x245mm (3.1x3.2x9.6in)

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° (-40°F / +140°F).
The wiring is made easier thanks to the removable connectors on the circuit board.
The housing can eventually be controlled by VMS through a video encoder with RS485 serial port.

MHXT

MHXT-MHXWBS1

ATEX | IECEx | EAC Ex | INMETRO | cULus LISTED | KCS

TECHNICAL 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

Window with protection grid

Sunshield

Unit weight: 16.5kg (36lb)

HOUSING WINDOWS

Material: Germanium

Dimensions:

- Diameter: 56mm (2.2in)
- Thick: 10mm (0.4in)

External treatment: Antiscratch (Hard Carbon Coating, DLC)

Internal treatment: Antireflection

Spectral range: From 7.5µm up to 14µm

ELECTRICAL

Supply voltage/Current consumption:

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

Heater (Ton 15°C±4°C (59°F±7°F), Toff 22°C±3°C (72°F±5°F))

COMMUNICATIONS

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

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 pre-installed camera by Videotec): from -40°C (-40°F) a +54°C (129°F)

Relative Humidity 10-95% (no condensation)

CERTIFICATIONS

ATEX (EN 60079-0: 2012, 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

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):

Class I, Zone 1, Ex d IIC T6 Gb

Class II, Groups E, F and G

EAC EX:

Ex II 2G Ex d IIC T6 Gb,Ta -40°C/+60°C

Ex II 2D Ex tb IIIC T85°C Db Ta -40°C/+60°C, IP66/IP67

KCs 16- KABO-0172X - 16- KABO-0171X

Ex d IIC T6

Ex tb IIIC T85°C

ACCESSORIES

OCTEX3/4C	Cable gland with gasket EX 3/4" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXA3/4C	Cable gland with gasket EX 3/4" NPT, armoured cable IECEX-ATEX-EAC Ex
OCTEXB3/4C	Barrier cable gland 3/4" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXBA3/4C	Barrier cable gland 3/4" NPT, armoured cable IECEX-ATEX-EAC Ex
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
OCTEXB1/2C	Barrier cable gland EX 1/2" NPT unarmoured cable ATEX-IECEx-EAC Ex
OCTEX1/2C	Cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex, with gasket from 3 to 8mm (0.12 to 0.31in)
OCTEXS1/2C	Cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex, with gasket from 7.5 to 11.9mm (3 to 4.7in)
OCTEX1/2-3/4C	Cable glands reduction in nickel-plated brass 3/4" - 1/2" NPT IECEX-ATEX-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

Model Number	Weight	Dimensions (WxHxL)	Master carton
MHXT	19kg (42lb)	58x34x22cm (23x13.4x8.7in)	-

ELECTRICAL RATING		
Supply voltage	**Max peak electrical ratings (comprising the max power dissipation of the end user camera/lens and heater)**	**Maximum power dissipation for end user fitted camera/lens**
230Vac	0.34A, 50/60Hz, 80W	13W
120Vac	0.5A, 50/60Hz, 60W	13W
24Vac	2.2A, 50/60Hz, 53W	13W
12Vdc	2.8A, 34W	13W

AVAILABLE MODELS						
Model Number	**230Vac**	**24Vac**	**120Vac**	**Germanium window for thermal cameras**	**Sunshield**	**ATEX / IECEX / EAC EX / INMETRO**
MHXT1C000B	✓	–	–	✓	✓	✓
MHXT2C000B	–	✓	–	✓	✓	✓
MHXT3C000B	–	–	✓	✓	✓	✓

MAXIMUS MHXT CERTIFICATIONS AND MARKINGS		
Certification	**Marking**	**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	**...B**
IECEX	Ex d IIC T6 Gb Ta -40°C to +60°C, Ex tb IIIC T85°C Db Ta -40°C to +60°C	**...B**
EAC Ex	Ex II 2 G Ex d IIC T6 Gb,Ta -40°C/+60°C, Ex II 2D Ex tb IIIC T85°C Db Ta -40°C/+60°C, IP66/IP67	**...B**
INMETRO	Ex d IIC T6 Gb -40°C à/to +60°C, Ex tb IIIC T85°C Db -40°C à/to +60°C	**...B**
UL listed for USA (only 24Vac)	Class I, Zone 1, AEx d IIC T6, Zone 21, AEx tb IIIC T85°C	**...B-U[1]**
UL listed for Canada (only 24Vac)	Class I, Zone 1, Ex d IIC T6 Gb, Class II, Groups E, F and G	**...B-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)*

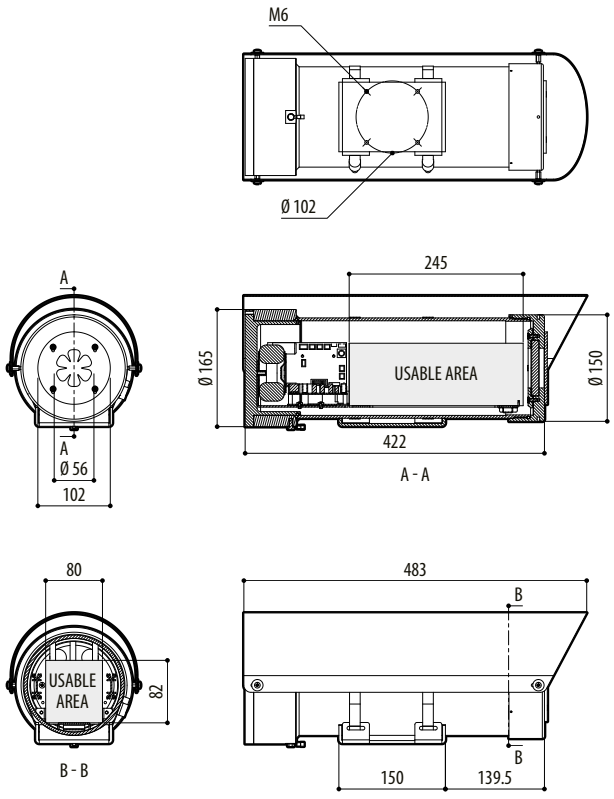
3/4" NPT CABLE GLAND SELECTION GUIDE							
Zone, Gas	**Cable gland type**	**Certification**	**Operating temperature**	**Cable**	**Cable glands part code**	**Diameter of the external cable (mm)**	**Under armor cable diameter (mm)**
IIC, Zone 1 or Zone 2 IIB or IIA, Zone 1	Barrier	IECEX/ATEX/EAC Ex	-60°C / +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 Ex	-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 Ex	-60°C / +80°C (-76°F / +176°F)	Not armoured	OCTEXB1/2C	3 - 8
IIB or IIA, Zone 2	With gasket	IECEX/ATEX/EAC Ex	-60°C / +100°C (-76°F / +212°F)	Not armoured	OCTEX1/2C	3 - 8
				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.

TECHNICAL DRAWINGS

Sizes in millimeters.



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