# **MAXIMUS MLX**

# **EXPLOSION-PROOF ILLUMINATOR**









- Certifications for use in Zones 1 and 2, IIB T6 or T5 Group (Gas) and in Zones 21 and 22, IIIC T85°C or T100°C Group (Dust)
- AISI 316L stainless steel construction
- Supports for ceiling, wall and parapet installation supplied
- White light or IR illuminator















## MAXIMUM RESISTANCE IN THE MOST CRITICAL ENVIRONMENTS

LED MLX illuminators perfectly integrate with indoor/outdoor video surveillance applications or process control systems, providing optimal lighting of the area and clear visibility in poor lighting conditions and during the night.

Their construction is entirely in AISI 316L stainless steel that offers maximum resistance in corrosive environments.

The IP66/IP67/IP68/IP69 level guarantees complete protection against bad weather and water immersion.

Another important feature is the certified extensive temperature range, from -40°C to +70°C.

The MLX line is certified for dangerous areas with certification for use in Zone 1 and 2, Group IIB (Gas) and Zone 21 and 22, Group IIIC (Dust). Furthermore, the line is Lloyd's Register Type Approval System Test Specification Number 1 certified and can therefore be used in marine and offshore applications.

## **INSTALLATION FLEXIBILITY**

MLX illuminators have a compact shape that easily adapts to narrow spaces. Their installation is easy and fast, thanks to the bracket supplied which is used for wall, ceiling or railing mounting, according to application requirements. Models are available with IR 850nm or white light for use combined with surveillance cameras and general lighting.

## **100% MADE IN VIDEOTEC**

Videotec guarantees the extreme robustness and reliability of all its "all-in-one products" with hundreds of validation tests. Mechanics, electronics, positioning, networking, software and firmware are developed end-to-end by the internal Videotec team, with total know-how of all the network products offered.

At the heart of Videotec's product development is the concept of cyber-sustainability. To help customers protect their video surveillance systems and keep them secure, Videotec provides constant updates, training and support throughout the lifecycle of its products, regardless of how old the device is or whether it is still for sale.

# TECHNICAL DATA

## **GENERAL**

Beam patterns: 70°, circular

Number of LED groups selectable: 2

LECC: The "LED Energy Consumption Control" technology allows the illuminator to withstand high temperatures and so ensure the LEDs operate correctly for the entire life of the product.

Illuminator with IR type LED

- Wavelength: 850nm
- Number of LEDs: 11
- Viewing distance: up to 125m (410ft) with VIDEOTEC cameras with DELUX technology

#### Illuminator with white light LED

- Light color temperature: 6500K
- Number of LEDs: 10
- Viewing distance: up to 125m (410ft) with VIDEOTEC cameras with DELUX technology

## **MECHANICAL**

AISI 316L stainless steel construction

External shot peened and electro-polished surfaces

Supports for wall, ceiling or parapet installation

Cable entry: 1 hole, 1/2" NPT

Unit weight:

• 6.5kg (14.3lb)

#### **ELECTRICAL**

Supply voltage/Current consumption

- 24Vac, 1.6A
- 24Vdc, 1.6A
- PoE+ (IEEE 802.3at)

Power consumption:

• 25.5W

# I/O INTERFACE

Number of inputs for LED groups management: 2

Fault Relay: 1A, 30Vac/60Vdc max

# **ENVIRONMENT**

For indoors and outdoors installation

Operating temperature: from -40°C (-40°F) up to +65°C (149°F)

Certification temperature: from -40°C (-40°F) up to +70°C (158°F)

Relative humidity: from 5% up to 95%

#### **CERTIFICATIONS**

Electrical safety (CE): EN60950-1, IEC60950-1, EN62368-1, IEC62368-1

Electromagnetic compatibility (CE): EN61000-6-3, EN61000-3-2, EN61000-3-3, EN50130-4, EN55032 (Class B)

RoHS (CE): EN IEC 63000

Outdoor installation (CE): EN60950-22, IEC60950-22

Photobiological safety (CE): EN62471, IEC62471

IP protection degree (EN/IEC60529): IP66, IP67, IP68 (2 hours, 5m (16ft)), IP69

Vibration test: EN50130-5, EN60068-2-6

UL certification (UL62368-1 CAN/CSA C22.2 No. 62368-1-14): cULus Listed

Electromagnetic compatibility (North America): FCC part 15 (Class B), ICES-003 (Class B)

Level of protection Type (UL50E): 4X, 6P

RCM (Australian and New Zealand Regulatory Compliance Mark)

## **CERTIFICATIONS - EXPLOSION-PROOF APPLICATIONS**

ATEX (EN IEC 60079-0, EN 60079-1, EN 60079-31)

IECEx (IEC 60079-0, IEC 60079-1, IEC 60079-31)

EAC EX (TR CU 012/2011) (pending)

INMETRO (ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-1, ABNT NBR IEC 60079-31)

KCs (Employment and labor department, 2020-33)

UL listed for USA (UL 60079-0, UL 60079-1, UL 60079-31)

UL listed for Canada (CAN/CSA-C22.2 NO. 60079-0, CAN/CSA-C22.2 NO. 60079-1, CAN/CSA-C22.2 NO. 60079-31)

For further details on certifications and markings, consult the relevant table.

# **CERTIFICATIONS - MARINE APPLICATIONS**

Lloyd's Register Marine Type Approval certification (with MAXIMUS MBX communication box or with FM1010 filter):

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

Electromagnetic compatibility: EN60945

Salty fog resistance: EN60068-2-52

Tested at 70°C (158°F) for 16 hours in compliance with EN60068-2-2

ACCESSORIES	
OCTEXB1/2P	Barrier cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex
OCTEXBA1/2P	Barrier cable gland in nickel-plated brass EX 1/2" NPT, armoured cable IECEX-ATEX-EAC Ex
OCTEX1/2C	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
OCTEXS1/2C	Cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEX-ATEX-EAC Ex

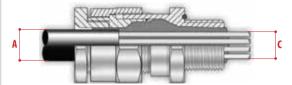
For further details about cable glands part numbers, please refer to the relevant table.

# **BRACKETS AND ADAPTORS**

MMXCWCOL Pole and corner adaptor module in stainless steel AISI 316L

PACKAGE			
Model Number	Weight	Dimensions (WxHxL)	Master carton
MLX	8kg (18lb)	32.5x19x23cm (12.8x7.5x9in)	-

CABLE GLANDS AND ACCESSORIES 1/2" NPT							
Туре	Certification	Operating temperature	Cable	Model Number	Maximum diameter of the external sheath (A)	Maximum diameter of the internal sheath (B)	Maximum diameter of the conductors bundle (C)
Barrier cable gland	IECEX/ATEX/EAC Ex	-60°C (-76°F) / +135°C (+275°F)	Unarmoured cable	OCTEXB1/2P	14.0mm (0.55in)	-	12.5mm (0.5in)
			Armoured cable	OCTEXBA1/2P	15.5 - 21.1mm (0.61-0.83in)	14mm (0.6in) max	12.5mm (0.5in)
Cable gland with gasket	IECEX/ATEX/EAC EX	-60°C (-76°F) / +100°C (+212°F)	Unarmoured cable	OCTEX1/2C	3.2 - 8.0mm (0.12-0.31in)	-	-
			Unarmoured cable	OCTEXS1/2C	6.5 - 11.9mm (0.26 - 0.47in)	-	-
			Armoured cable	OCTEXA1/2C	12.5 - 20.5mm (0.49 - 0.8in)	10 - 14.3mm (0.4 - 0.56in)	-
Plug EX 1/2"NPT	IECEX/ATEX/EAC Ex	-100°C (-148°F) / +400°C (+752°F)	-	OEXPLUG1/2P	-	-	-



Barrier cable gland with unarmoured cable



Barrier cable gland with armoured cable



Cable gland with gasket with unarmoured cable



Cable gland with gasket with armoured cable

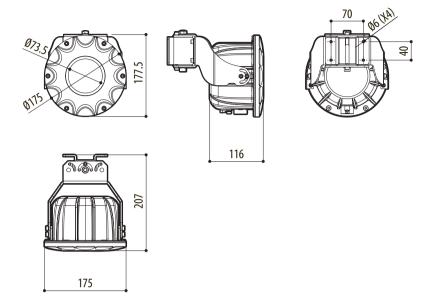
Certification	Marking	Ambient temperature	Cable input temperature
ATEX	<ul> <li>⑤ II 2 G Ex db IIB T6T5 Gb</li> <li>⑥ II 2 D Ex tb IIICT85°CT100°C Db</li> </ul>	-40°C ≤ Ta ≤ $+55$ °C or $+70$ °C	$+82.3^{\circ}\text{C}$ with Ta $\leq +55^{\circ}\text{C}$ $+97.3^{\circ}\text{C}$ with Ta $\leq +70^{\circ}\text{C}$
IECEx	Ex db IIB T6T5 Gb Ex tb IIIC T85°CT100°C Db		
EAC Ex (pending)	1 Ex d IIB T6T5 Gb X Ex tb IIIC T85°CT100°C Db X		
KCs (pending)	Ex d IIB T6T5 Ex tb IIIC T85°CT100°C		
INMETRO	Ex d IIB T6T5 Gb Ex tb IIICT85°CT100°C Db		
Hazardous Location America	Class I, Zone 1, AEx db IIB T5T4 Gb Zone 21, AEx tb IIIC T100°CT135°C Db Class I, Div 2, Group C and D T5T4 Class II, Div 2, Group F and G T5T4	-40°C ≤ Ta ≤ $+45$ °C or $+70$ °C	$+78.5^{\circ}$ C with Ta $\leq +45^{\circ}$ C $+88.5^{\circ}$ C with Ta $\leq +55^{\circ}$ C $+103.5^{\circ}$ C with Ta $\leq +70^{\circ}$ C
Hazardous Location Canada	Ex db IIB T5T4 Gb X Ex tb IIIC T100°CT135°C Db X Class I, Div 2, Group C and DT5T4 Class II, Div 2, Group F and GT5T4		

MAXIMUS MLX - CONFIGURATION OPTIONS						
	Voltage	Light	Lens scattering angle	Connections		
MLX	2 24Vdc/ 24Vac, PoE+	<b>8</b> 850nm	3 70°	0 Without cable, without cable gland	A	A
		W white light				

# **TECHNICAL DRAWINGS**

# The indicated measurements are expressed in millimetres.

# WALL OR CEILING FASTENING



# PARAPET MOUNTING

