MAXIMUS MBX

EXPLOSION-PROOF COMMUNICATION BOX IN STAINLESS STEEL

ATEX/Ex

IP66/IP67
IP68/IP69

TYPE 4X
TYPE 6P

- Certifications for use in Zones 1 and 2 IIC Group (Gas) and in Zones 21 and 22 IIIC Group (Dust); ambient temperature up to +70°C (+158°F)

- Designed to work exclusively with Pelco products and accessories

- 1 SFP port, Fast Ethernet (100BASE-FX), for fiber optic connection

CERTIFICATIONS

ATEX · IECEx · c UL us LISTED · INMETRO · KCs · EAC · Ex

LR APPROVED TYPE APPROVAL SCHEME · UKCA

PERFECT INTEGRATION WITH CONTROL SYSTEMS

MAXIMUS MBX is a communication box designed to integrate seamlessly with one or more IP or analogue cameras from the Pelco ExSite Enhanced 2 Series, Existe Pro, MAXIMUS MHX, WASEX range.

This device can connect a 24Vac-powered PTZ and its washing kit, or two fixed cameras equipped with washing kits.

MAXIMUS MBX provides the devices that it connects to with a low-voltage local power supply. It also offers a Fast Ethernet connection thanks to the integrated Ethernet switch that is equipped with 3 RJ45 ports and an SFP port for fiber optic connection. The SFP module can be chosen according to the requirements of the installation. It has been designed so that the inside gives easy access to cables, making connection effortless. The internal circuitry also makes it possible to bypass analogue video signals and all input/output connections available across the Pelco ExSite Enhanced 2 Series, Existe Pro, MAXIMUS MHX, WASEX range.

MAXIMUM RESISTANCE IN THE MOST CRITICAL ENVIRONMENTS

The robust AISI 316L stainless steel construction means maximum anti-corrosion properties for use in industrial and marine environments.

Thanks to the integrated filter, any products connected to MBX comply with Lloyd's Register Marine Type Approval standards for electromagnetic (EMC) compatibility.

MAXIMUS MBX is the complete and competitive solution for professional installation of Pelco's ExSite Enhanced 2 Series, Existe Pro, MAXIMUS MHX, WASEX explosion-proof products.

TECHNICAL DATA

MECHANICAL

AISI 316L stainless steel construction

Fastening slots: 4 x Ø11mm (0.43in)

Cable gland holes: 4 x 3/4" NPT + 2 x 1/2" NPT

External dimensions (WxHxL): 220x216x240mm (8.7x8.5x9.4in)

Unit weight: 17.4kg (38.4lb)

ELECTRICAL

MAXIMUS MBX exclusively supports Pelco products from the ExSite Enhanced 2 Series, ExSite Pro, MAXIMUS MHX range with 24Vac and WASEX with 24Vac.

Maximum power output: 120W

Input voltages available:

- · 230Vac, 50/60Hz
- · 24Vac, 50/60Hz
- · 120Vac, 50/60Hz
- · 24Vdc (available on request)

Possible system configurations:

- · up to 1 PTZ + 1 wash system
- · up to 2 fixed cameras + 2 wash systems

Review the installation manual for further details about the unit power requirements.

NETWORK

4 channels unmanaged ethernet switch:

3 RJ45 ports

- • Ethernet connection: 10BASE-T/100BASE-T

1 SFP port (SMALL FORM FACTOR PLUGGABLE)

- • Ethernet connection: 100BASE-FX
- • Supply voltage: 3.3V
- • Standard: MSA compliant

The SFP module (not supplied by Pelco) must meet the following requirements:

- • Laser: Class 1, complies with EN60825-1
- • UL/IEC 60950-1 or UL/IEC 62368-1 Certification

ANALOGUE VIDEO

2 bypass for analog video signals with BNC connectors

I/O INTERFACE

2 bypass for I / O signals with multi-pin connectors

ENVIRONMENT

For indoors and outdoors installation

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

Operating 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): EN50130-4, EN55032 (Class B), EN61000-6-3, EN61000-3-2, EN61000-3-3

RoHS (CE): EN ISO 63000

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

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

UL certification (UL60950-1, CAN/CSA C22.2 No. 60950-1-07, 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)

IP protection degree (EN/IEC60529): IP66, IP67, IP68, IP69

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)

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)

EAC Ex (TR CU 012/2011)

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

KCs (Employment and labor department. 2020-33)

UK Ex (EN IEC 60079-0, EN 60079-1, EN 60079-31)

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

CERTIFICATIONS - MARINE APPLICATIONS

Lloyd's Register Marine Type Approval certification:
Test Specification Number 1 (ENV1, ENV2, ENV3, ENV5)

Electromagnetic compatibility: EN60945

Salty fog resistance: EN60068-2-52

ACCESSORIES

MBXWRE	Opening wrench for the MAXIMUS MBX cover
OCTEXBA3/4P	Barrier cable gland in nickel-plated brass EX 3/4" NPT, armoured cable IECEx-ATEX-EAC Ex
OCTEXBA1/2P	Barrier cable gland in nickel-plated brass EX 1/2" NPT, armoured cable IECEx-ATEX-EAC Ex
OCTEXB3/4P	Barrier cable gland in nickel-plated brass EX 3/4" NPT, unarmoured cable IECEx-ATEX-EAC Ex
OCTEXB1/2P	Barrier cable gland in nickel-plated brass EX 1/2" NPT, unarmoured cable IECEx-ATEX-EAC Ex
OEXPLUG3/4P	Plug EX 3/4" NPT IECEx-ATEX-EAC Ex
OEXPLUG1/2P	Plug EX 1/2" NPT IECEx-ATEX-EAC Ex
OCTEX1/2-3/4P	Cable glands reduction in nickel-plated brass Ex 3/4" - 1/2" NPT IECEx-ATEX-EAC Ex

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

For further details on cable codes please refer to the relevant datasheet.

BRACKETS AND ADAPTORS

MBXMP	Plate for assembly of the MAXIMUS MBX with MPXCOL pole adaptor or with MPXCW corner adaptor
MPXCW	AISI 316L stainless steel corner adapter module
MPXCOL	AISI 316L stainless steel pole adapter module

RELATED PRODUCTS

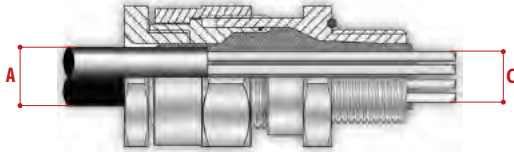|	
MAXIMUS MHX	Ex-proof stainless steel housing
MAXIMUS MHXT	Ex-proof stainless steel housing for thermal cameras
Exsite Enhanced Compact 2 Series	Ex-proof FULL HD camera in a compact design
ExSite Enhanced Fixed 2 Series	Ex-proof Day/Night camera
ExSite Enhanced PTZ 2 Series	Explosion-proof Full HD PTZ camera
ExSite Pro PTZ Series	Explosion-proof PTZ camera
WASEX	Washer pump with ex-proof solenoid valve

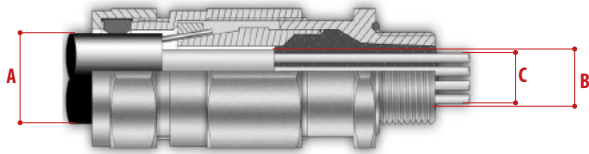*MAXIMUS MBX can only be installed with the indicated products from the MAXIMUS line.

PACKAGE

Model Number	Weight	Dimensions (WxHxL)	Master carton
MBX1MAA	19.5kg (43lb) (12.5x12.5x10.2in)	-	32x32x26cm

CABLE GLANDS AND ACCESSORIES 1/2" NPT

Type	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)

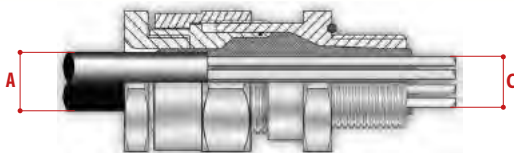Barrier cable gland with unarmoured cable
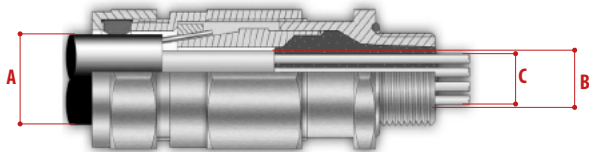

Barrier cable gland with armoured cable

Cable gland with gasket with unarmoured cable

CABLE GLANDS AND ACCESSORIES 3/4" NPT

Type	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	OCTEXB3/4P	20.0mm (0.78in)	-	17.8mm (0.7in)
			Armoured cable	OCTEXBA3/4P	16.8 - 23.9mm (0.66-0.94in)	20mm (0.79in) max	17.8mm (0.7in)
Plug EX 3/4"NPT	IECEx/ATEX/ EAC Ex	-100°C (-148°F) / +400°C (+752°F)	-	OEXPLUG3/4P	-	-	-
Reduction 3/4" NPT x 1/2" NPT	IECEx/ATEX/ EAC Ex	-100°C (-148°F) / +400°C (+752°F)	-	OCTEX1/2-3/4P	-	-	-

Barrier cable gland with unarmoured cable

Barrier cable gland with armoured cable

Conduit sealing fitting

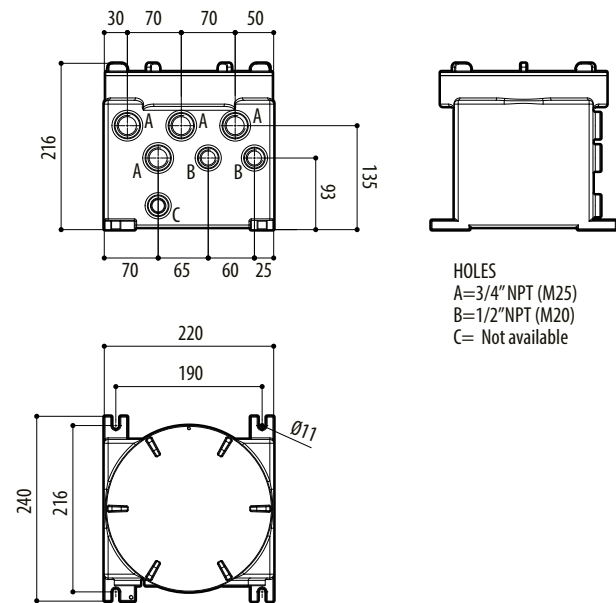## MAXIMUS MBX - CERTIFICATIONS AND MARKINGS

Part number	Certification	Marking	Ambient temperature	Cable entry temperature
MBX**AA	ATEX	ⓔ II 2 G Ex db IIC T6...T5 Gb ⓔ II 2D Ex tb IIIC T85°C...T100°C Db	-40°C ≤ Ta ≤ +60°C or +70°C	80°C
	IECEx	Ex db IIC T6...T5 Gb Ex tb IIIC T85°C...T100°C Db		
	INMETRO	Ex db IIC T6...T5 Gb Ex tb IIIC T85°C...T100°C Db		
	KCs	Ex d IIC T6...T5 Ex tb IIIC T85°C...T100°C		
	EAC Ex	1Ex db IIC T6...T5 Gb X Ex tb IIIC T85°C...T100°C Db X		
	UK Ex	ⓔ II 2 G Ex db IIC T6...T5 Gb ⓔ II 2D Ex tb IIIC T85°C...T100°C Db		
	UL Hazardous Location America	Class I, Zone 1, AEx db IIC T6...T5 Gb Zone 21, AEx tb IIIC T85°C...T100°C Db Class I, Div 2, Group A, B, C, D T6...T5 Class II, Div 2, Group F, G T6...T5		80°C with Ta = 60°C max 90°C with Ta = 70°C max
	UL Hazardous Location Canada	Ex db IIC T6...T5 Gb X Ex tb IIIC T85°C...T100°C Db X Class I, Div 2, Group A, B, C, D T6...T5 Class II, Div 2, Group F, G T6...T5		

MAXIMUS MBX - CONFIGURATION OPTIONS

		Input voltage				Temperature class - Ambient temperature	
MBX	1	230Vac	M	Fiber splice tray and EMC Marine filter	A	T6...T5 -40/+60°C or +70°C	**A**
	2	24Vac					
	3	120Vac					

TECHNICAL DRAWINGS

The indicated measurements are expressed in millimetres.

HOLES
A=3/4"NPT (M25)
B=1/2"NPT (M20)
C= Not available

MAXIMUS MBX

SUPPORT

Learn more and find additional documentation at pelco.com or email support@pelco.com for specific product support.