



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx ULD 16.0007X Issue No: 0 Certificate history:  
Issue No. 0 (2016-11-30)

Status: **Current** Page 1 of 3

Date of Issue: **2016-11-30**

Applicant: **EXOR INTERNATIONAL SPA**  
Via Monte Fiorino 9  
S Giovanni Lupatoto , Vr 37057  
**Italy**

Equipment: **HMI Panels, eTOP Series 500 Glass and eTOP 600 and accessories  
modules, type PLCM01, PLCM05 and PLIO03**

*Optional accessory:*

Type of Protection: **Non-sparking "nA", Dust Ignition Protection by Enclosure "tc"**

Marking: Ex nA IIC T4 Gc  
Ex tc IIIC T105°C Dc

-20°C ≤ Tamb ≤ +60°C for all models except for PLIO03 accessory module  
Limited to 0°C ≤ Tamb ≤ +50°C with PLIO03 accessory module

Approved for issue on behalf of the IECEx  
Certification Body:

Paul T. Kelly

Position:

Principal Engineer - Global Hazardous Locations

Signature:  
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**UL International Demko A/S**  
Borupvang 5A,  
DK-2750 Ballerup  
Denmark





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Manufacturer: **EXOR INTERNATIONAL SPA**  
Via Monte Fiorino 9  
S Giovanni Lupatoto , Vr 37057  
**Italy**

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-15 : 2010</b> Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[DK/ULD/ExTR16.0007/00](#)

Quality Assessment Report:

[DK/ULD/QAR16.0002/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

eTOP Series 500 Glass and eTOP Series 600 are Human Machine Interfaces (HMIs) with a touch screen display. They are intended to be panel-mounted and only the front face has been investigated as the enclosure and IP54 rating minimum. All models are to be powered by a Class 2 or limited power supply (LPS).

See Annex for Nomenclature and additional information.

### CONDITIONS OF CERTIFICATION: YES as shown below:

The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.

The equipment shall be installed in an enclosure that provides a degree of protection not less than IP 66 in accordance with IEC 60079-0 and IEC 60079-15.

Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

Care shall be taken not to allow layers of dust to form on the graphic panel in a way that might cause the accumulation of static charges.

### Annex:

[Annex to IECEx ULD 16.0007X Issue 0.pdf](#)

eTOP Series 500 Glass and eTOP Series 600 are Human Machine Interfaces (HMIs) with a touch screen display. They are intended to be panel-mounted and only the front face has been investigated as the enclosure and IP54 rating minimum. All models are to be powered by a Class 2 or limited power supply (LPS).

The Accessory Modules are installed using an expansion ports at the rear cover of the HMIs. These Accessory Modules are communication, input and output modules for the HMIs models covered by this report. The modules are secured to the rear cover by two fasteners and one or two screws.

The PLCM01 module is a communication module designed to let the operator panel connect to the CAN network. The PLCM05 module is bus extenders to mechanically adapt plug-in modules to the host HMI device.

The PLIO03 module is multifunction digital and analog I/O module. Digital Inputs can be configured as encoder inputs, counter inputs and period/frequency measurement. Digital outputs are source type with feedback of output driver fault status. Analog Input programmable as voltage inputs, current inputs. Additionally they can be configured to support industrial temperature sensors like thermocouple and PT100 (RTD). Analog Outputs programmable as voltage output s and current outputs. Additional PT 100 channel for cold junction compensation. To be used for thermocouples.

Nomenclature:

- eTOP Series 500 Glass model type:

eTOP5	xx	*	G
I	II	III	IV

- I – Product model name:  
eTOP5 – eTOP Series 500 Glass
- II – Display touchscreen:  
07 – TFT color 7” widescreen display touchscreen  
10 – TFT color 10.1” widescreen display touchscreen  
15 – TFT color 15” widescreen display touchscreen
- III – Operator interface (CPU):  
M – High performance operator interface, 1GHz CPU  
Blank – Operator interface
- IV – Front Panel:  
G – Glass bonding assembly

- eTOP Series 600 model type:

eTOP6	xx	*
I	II	III

- I – Product model name:  
eTOP6 – eTOP Series 600

- II – Display touchscreen:
  - 05 – TFT color 5” widescreen display touchscreen
  - 07 – TFT color 7” widescreen display touchscreen
  - 10 – TFT color 10” widescreen display touchscreen
- III – Operator interface (CPU):
  - M – High performance operator interface, 1GHz CPU
  - Blank – Operator interface

- Accessories:

PLCM	xx	-****
I	II	III

- I – PLC’s interface model name:
  - PLCM – Plug-in module
- II – Module function:
  - 01 – Communication module (CAN interface)
  - 05 – Plug-in extenders
- III – Software specification:
  - Blank – Plug-in module CAN
  - CDS – Plug-in module CAN + activation license for CODESYS runtime
  - NE – CAN open module without bus extension connector
  - NEC – CAN open module without bus extension connector + activation license for CODESYS runtime
  - \*\*\*\* – Up to any four alphanumeric characters, specifying software

PLIO	03	-****
I	II	III

- I – PLC’s interface model name:
  - PLIO – Multifunction digital and analog I/O module
- II – Module function:
  - 03 – Programmable module with 20 digital and 4 analog Inputs, 12 digital and 4 analog Outputs, plus 1 PT100 input
- III – Software specification:
  - Blank – I/O module
  - CDS – I/O module + activation license for CODESYS runtime
  - \*\*\*\* – Up to any four alphanumeric characters, specifying software

Ratings:

eTOP Series 500 Glass and eTOP Series 600 model type:

Model type	Power supply voltage	Current consumption
eTOP507G	24Vdc	0.8A at 24Vdc (max)
eTOP507MG	24Vdc	0.9A at 24Vdc (max)
eTOP510G	24Vdc	1.0A at 24Vdc (max)
eTOP515G	24Vdc	1.4A at 24Vdc (max)
eTOP605	24Vdc	0.6A at 24Vdc (max)
eTOP607	24Vdc	0.7A at 24Vdc (max)
eTOP607M	24Vdc	0.6A at 24Vdc (max)
eTOP610	24Vdc	1.0 A at 24Vdc (max)

Accessory modules type (24Vdc powered from Operator Interface Terminal):

- PLCM01: one D-Sub for CAN network interface. Communication protocol CAN 2.0, max speed 1 Mbit. For electrical rating refers to the host HMI models covered by this report.
- PLCM05: bus extender to mechanically adapt PLIO03 to the host HMI device covered by this report. For electrical rating refers to the host HMI models covered by this report and PLIO03 ratings.
- PLIO03: 20xDigital Inputs voltage 12÷30 Vdc; 12xDigital Outputs voltage 12÷30 Vdc, 0.5A; 4xAnalog inputs 0÷10 Vdc, 4-20mA; 4xAnalog outputs: 0÷10 Vdc, 4-20mA.