

Magelis GTU and iDisplay ATEX/IECEX Instruction Guide

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Concerning the use of Magelis GTU and iDisplay for applications in potentially explosive atmospheres (Zones 2/22)

Schneider Electric
8^{ème} rue, ZI Carros
06516 Carros cedex – France

Type examination certificate: INERIS 15ATEX3006X
IECEX Certificate of Conformity: IECEX INE15.0017X

SAFETY INSTRUCTIONS

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists, which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in death or serious injury.**



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WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.


NOTICE

NOTICE is used to address practices not related to physical injury.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material. A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

SCOPE

This present document applies when the Magelis GTU and iDisplay bears  marking and provides important information when used in hazardous areas. This documentation has to be kept and always refer to those instructions for installation, operation, maintenance or evolution of your system. You can download this instruction guide at www.schneider-electric.com. If any translation is needed, you can contact your local Schneider support or sales center.

Magelis GTU and iDisplay are only supplied with 12...24 Vdc

Relevant Standards

These terminals have been manufactured in accordance with:

- Standard EN 60079-0 (2012) + A11 (2013) and IEC 60079-0 (2017): Explosive atmospheres - Part 0: Equipment - General requirements.
- Standard EN 60079-15 (2010) and IEC 60079-15 (2010): Explosive atmospheres - Part 15: Equipment protection by type of protection "n".
- Standard EN 60079-31 (2014) and IEC 60079-31 (2013): Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t".



DANGER

POTENTIAL FOR EXPLOSION


Install, use, and maintain these modules in accordance with:

- Standard IEC 60079-14 (2013): Explosive atmospheres - Part 14: Electrical installations design, selection and erection.
- Standard IEC 60079-17 (2013): Inspection and maintenance of electrical installations in hazardous areas.
- Standard EN 61241-14 (2004): Electrical apparatus for use in the presence of combustible dust, Part 14: Electrical apparatus protected by enclosures. Selection, installation and maintenance.
- Edicts, by-laws, laws, directives, circulars, standards, regulations and any other document relating to where the apparatus is installed.

Failure to follow these instructions will result in death or serious injury.

Permitted zones of application

Refer to the section "Markings" to get information about the permitted zones of protection and the types of protection.

- Magelis GTU and iDisplay installed in zones 2/22 hazardous areas must be certified and bear the  marking
- Ensure with the marking that the terminals are compatible with the conditions permitted for the hazardous area at the site where it is being used.

Installation, Operation and Maintenance

Make sure you follow all the recommendations in the Magelis GTU and iDisplay user manual and additionally those listed below.



DANGER

POTENTIAL FOR EXPLOSION

- Confirm that the location is free from explosively hazardous gases or dust before connecting or disconnecting equipment, replacing or wiring modules.
- Make sure that the ambient temperature in protective enclosure never exceeds the temperature marked on the product.
- Confirm each interface (COM, Ethernet, USB, power line, ...) has been securely locked.
- Confirm that any USB cable has been attached with its appropriate clamp.
- Install the modules in an enclosure EPL Gc insuring a minimal ingress protection IP54 for use in zone 2 and in an enclosure EPL Dc insuring a minimal ingress protection IP6X for use in zone 22.
- Do not install the modules in the environment more than Pollution Degree 2 as defined in IEC 60664-1.
- Do not open the enclosure when an explosive atmosphere is present.
- Confirm that the power supply has been turned OFF before disconnecting, replacing or wiring modules.
- Ensure that ground at power supply is properly connected.
- Do not use equipment that has been damaged.
- Do not expose the terminal to direct sunlight.
- Do not allow layers of dust to form on Magelis GTU and iDisplay: it should be cleaned regularly.
- Implement method to avoid risk of electrostatic discharge at using zone 2 and 22 areas. See the details at NOTE.
- Add the warning for potential electrostatic charging hazard in a location visible by the operator after installation in order to maintain the required level of safety.
- Take into consideration during the installation, that the product underwent only a shock corresponding to an energy of a low risk at 2J.
- Make sure that the operating temperature of the gasket does not exceed 66 °C.
- Mount the display in an enclosure according to the installation procedures described in the user manual.

Failure to follow these instructions will result in death or serious injury.

NOTE: The front surface of Magelis GTU and iDisplay have risk of electrostatic discharge. If the product is operating in zone 2/22 areas, the following instructions must be applied:

All models except for HMIDT752 and HMIDT952:

- Use non-conductive gloves (e.g. Electrosoft Latex Gloves by Honeywell Safety) made of leather, plastic or rubber whose surface resistance is more than 1 GΩ at 23 ± 2 °C and 50 ± 5 % relative humidity.



- Use a non-conductive touch pen (XBTZGPEN by Schneider Electric) made of plastic material whose surface resistance is more than 1 GΩ at 23 ± 2 °C and 50 ± 5 % relative humidity to all terminals.

HMIDT752 and HMIDT952:

- Install the product away from 1,000 mm distance from a potential electrostatic source (e.g. plant process, conveyor belt, pipe, etc). The environmental conditions shall not be lower than 25 % relative humidity. If the potential electrostatic source is upper than 30 kV, it is necessary to call an expert to evaluate the electrostatic risk and the distance between the product and the electrostatic source.

Markings

ATEX and IECEx markings, applied to the Magelis GTU and iDisplay are as follows:

<p>HMIDT351, HMIDT542 HMIDT551, HMIDT642 HMIDT643, HMIDT651 HMIDT732, HMIG2U, HMIG3U, HMIG5U, HMIG5U2, HMIDID64DTD1, HMIDID73DTD1 HMIZGPDP, HMIZGCAN, HMIZMDARX, HMIZMDAEX</p>	<p>HMIDT752, HMIDT952</p>
<p>Schneider Electric F-06516 Carros</p>  <p>INERIS 15ATEX3006X IECEx INE 15.0017X II 3 G D Ex nA nC IIC T4 Gc Ex tc IIIC T135°C Dc</p> <p>Tamb: 0°C to +60°C WARNING - Do not disconnect when circuit is live - Potential electrostatic charging hazard (see instructions)</p>	<p>Schneider Electric F-06516 Carros</p>  <p>INERIS 15ATEX3006X IECEx INE 15.0017X II 3 G D Ex nA IIC T4 Gc Ex tc IIIC T135°C Dc</p> <p>Tamb: 0°C to +55°C WARNING - Do not disconnect when circuit is live - Potential electrostatic charging hazard (see instructions)</p>
<p>NOTE: Other required elements such as product reference, serial number and date code of manufacture are already marked on products. All models may be followed by alphanumeric characters and there is no impact safety related critical components and constructions.</p>	










EU DECLARATION OF CONFORMITY

We: Schneider Electric Industries SAS
35 rue Joseph Monier
Rueil Malmaison 92506 - France

Hereby declare under our own responsibility that the products:

Trademark	Magelis
Product, Type	<p>Human Machine Interface HMIGTU: HMIDT542, HMIDT642, HMIDT643, HMIDT732, HMIDT351, HMIDT551, HMIDT651, HMIDT752, HMIDT952, HMIG2U, HMIG3U, HMIG5U, HMIG5U2, HMIZGPDP, HMIZGCAN, HMIZMDARX, HMIZMDAEX</p> <p>iDisplay HMIDID: HMIDID64DTD1, HMIDID73DTD1</p> <p>Includes models with additional alphanumeric characters at the end of the model number.</p>
List of reference and options	See the Magelis GTU and iDisplay ATEX/IECEx Instruction Guide

Are in conformity with the requirements of the following directives and conformity was checked in accordance with the following standards.

Directive	Harmonized standard / Notified body reference																				
ATEX Directive 2014/34/EU	<p>EN 60079-0: 2012/A11:2013, EN 60079-15: 2010, EN 60079-31: 2014</p> <p>Type examination certificate: INERIS 15ATEX3006X and IECEx INE 15.0017X</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;">II 3 G D</td> <td style="text-align: center;">II 3 G D</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Ex nA nC IIC T4 Gc</td> <td style="text-align: center;">Ex nA IIC T4 Gc</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Ex tc IIIC T135°C Dc</td> <td style="text-align: center;">or Ex tc IIIC T135°C Dc</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Tamb: 0°C to +60°C</td> <td style="text-align: center;">Tamb: 0°C to +55°C</td> </tr> </table> <p>By INERIS: Parc Technologique ALATA, 60550 Verneuil en Halatte - France</p>				II 3 G D	II 3 G D				Ex nA nC IIC T4 Gc	Ex nA IIC T4 Gc				Ex tc IIIC T135°C Dc	or Ex tc IIIC T135°C Dc				Tamb: 0°C to +60°C	Tamb: 0°C to +55°C
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			Tamb: 0°C to +60°C	Tamb: 0°C to +55°C																	

Subject to correct installation, maintenance and use conforming to its intended purpose, to the applicable regulations and standards, to the supplier's instructions and to accepted rules of the art. This declaration becomes invalid in the case of any modification to the products not authorized by us.

Compliance with the ATEX Directives will require the application of ATEX guide giving requirements, details and advices for installation of products used. The guides are available on www.schneider-electric.com

Issued at Carros - FRANCE: February 11, 2019



Name: Serge RUGO
Digital Plant
Certification Manager