

GP4000 Series

ATEX Instruction Guide

www.pro-face.com

Concerning the use of GP4000 Series for applications in potentially explosive atmospheres (Zones 2/22)

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Type examination certificate: INERIS 12ATEX3008X

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 Digital Electronics Corporation 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 GP4000 Series bears  marking. They are supplied only with 24 Vdc. 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.pro-face.com.

If any translation is needed, you can contact your local Pro-face support or sales center.

Relevant Standards

These devices have been manufactured in accordance with:

- Standard EN 60079-0 (2009) and IEC 60079-0 Ed6 (2011): Explosive atmospheres - Part 0: Equipment - General requirements.
- Standard EN 60079-15 (2010) and IEC 60079-15 Ed4 (2010): Explosive atmospheres - Part 15: Equipment protection by type of protection “n”.
- Standard EN 60079-31 (2009) and IEC 60079-31 Ed1 (2008): 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 Ed4 (2007): Explosive atmospheres - Part 14: Electrical installations design, selection and erection.
- Standard EN 60079-17 (2007): 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 titled "Markings" to get information about the permitted zones of protection and the types of protection.

- GP4000 Series 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 GP4000 Series Hardware 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.
- The ambient temperature in protective enclosure must not exceed 50°C or 55°C (refer to marking).
- Confirm each interface (COM1, COM2, LAN), field wiring terminal blocks and the SD Card / Battery Cover have been securely locked.
- Confirm USB cables are attached with its appropriate clamp.
- Modules must be installed in a protective enclosure that provides at least the following degree of protection:
 - IP54 for atmosphere with gas
 - IP6x for atmosphere with dust
- Do not open the protective enclosure while the system is powered up.
- Confirm that the power supply has been turned OFF before disconnecting, replacing or wiring modules.
- Ensure that the FG (Functional Ground) on the power supply is properly connected to ground.
- Use only screw fasteners suitable for installations in explosive atmospheres.
- Do not use damaged equipment.
- Implement method to avoid risk of electrostatic discharge at using zone 2/22 areas. See the details at Note.

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

NOTE: GP4000 Series have risk of electrostatic discharge. If the product is operating in zone 2/22 areas, the following instructions must be applied:

- 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 (e.g. CA7-TPPEN/ALL-01 by Pro-face) made of plastic material whose surface resistance is more than 1 GΩ at 23 ± 2 °C and 50 ± 5 % relative humidity to all terminals.



CAUTION



ENVIRONMENTAL HAZARDS TO THE EQUIPMENT

- Do not allow layers of dust to form on the GP4000 Series. Clean the unit regularly.
- The ambient temperature in protective enclosure must not exceed 50°C or 55°C (refer to marking).
- Ensure that the GP4000 Series are installed according to its manufacturer's specifications.

Failure to follow this instruction can result in injury or equipment damage.

Markings

ATEX markings applied to the GP4000 Series, are as follows:

<p>Models: PFXGP4301TAD, PFXGP4303TAD, PFXGP4401TAD, PFXGP4501TAD, PFXGP4501TMD, PFXGP4503TAD, PFXGP4601TAD, PFXGP4601TMD, PFXGP4603TAD</p>	<p>Models: PFXGP4201TAD, PFXGP4201TADW, PFXGP4203TAD, PFXGP4301TADW, PFXGP4401WADW, PFXGP4501TADW</p>
<p>Digital Electronics Corporation 541-0041 Osaka Japan</p>	<p>Digital Electronics Corporation 541-0041 Osaka Japan</p>
<p> INERIS 12ATEX3008X II 3 G D Ex nA nC IIC T5 Gc Ex tc IIIC T100°C Dc IP64 Tamb: 0°C to +55°C</p>	<p> INERIS 12ATEX3008X II 3 G D Ex nA nC IIC T5 Gc Ex tc IIIC T100°C Dc IP64 Tamb: 0°C to +50°C</p>
<p>WARNING: Do not disconnect while circuit is live. Potential electrostatic charges. Wipe the front panel of the terminal with a damp cloth before turning on.</p>	<p>WARNING: Do not disconnect while circuit is live. Potential electrostatic charges. Wipe the front panel of the terminal with a damp cloth before turning on.</p>


EU DECLARATION OF CONFORMITY

We: Schneider Electric Industries SAS
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Rueil Malmaison 92506 - France

Hereby declare under our own responsibility that the products:

Trademark	Pro-face by Schneider Electric
Product, Type	Human Machine Interface GP4000 Series: PFXGP4201TAD, PFXGP4201TADW, PFXGP4203TAD, PFXGP4301TAD, PFXGP4303TAD, PFXGP4301TADW, PFXGP4401TAD, PFXGP4401WADW, PFXGP4501TAD, PFXGP4501TMD, PFXGP4503TAD, PFXGP4501TADW, PFXGP4601TAD, PFXGP4601TMD, PFXGP4603TAD Includes models with additional alphanumeric characters at the end of the model number.
List of reference and options	See the GP4000 Series ATEX 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	EN 60079-0: 2009, EN 60079-15: 2010, EN 60079-31: 2009
(*) According to art 41.2, certificates issued under Directive 94/9/EC shall be valid under this directive.	EC Type examination certificate: INERIS 12ATEX3008X (*)  II 3 G D Ex nA nC IIC T5 Gc Ex tc IIIC T100°C Dc IP64 Tamb: 0°C to +50°C or +55°C By INERIS: Parc Technologique ALATA, 60550 Verneuil en Halatte - France

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.pro-face.com

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