

SP5000 Series and FP5000 Series ATEX/IECEX Instruction Guide www.pro-face.com

Concerning the use of SP5000 Series and FP5000 Series for applications in potentially explosive atmospheres (Zones 2/22)

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Type examination certificate: INERIS 15ATEX3007X
IECEX Certificate of Conformity: IECEX INE15.0018X

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 or any of its affiliates or subsidiaries (hereinafter, referred to as 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 SP5000 Series and FP5000 Series 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.pro-face.com.

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

SP5000 Series and FP5000 Series 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 (2011): 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.

- SP5000 Series and FP5000 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 SP5000 Series and FP5000 Series 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 SP5000 Series and FP5000 Series: it should be cleaned regularly.
- Use a front USB cover (with screw) by Pro-face (Model Number PFXZCDCVUS1).
- Implement method to avoid risk of electrostatic discharge at using zone 2 and 22 areas. See the details at NOTE.
- Take into consideration during the installation, that the product underwent only a shock corresponding to an energy of a low risk at 2J.

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

NOTE: The front surface of SP5000 Series and FP5000 Series 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 PFXSP5700WCD and PFXSP5800WCD:

- 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 G Ω at 23 \pm 2 $^{\circ}$ C and 50 \pm 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 G Ω at 23 \pm 2 $^{\circ}$ C and 50 \pm 5 % relative humidity to all terminals.

PFXSP5700WCD and PFXSP5800WCD:

- 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 SP5000 Series and FP5000 Series are as follows:

| | |
|---|--|
| <p>PFXSP5400WAD, PFXSP5500TPD PFXSP5500WAD, PFXSP5600TPD PFXSP5660TPD, PFXSP5600WAD PFXSP5700TPD, PFXSP5B10 PFXSP5B40, PFXSP5B41, PFXFP5600TPD, PFXFP5700TPD, PFZCDEUPF1, PFZCDEUCA1, PFZCDADEXP1, PFZCDADEXR1, PFZCHEUFN1, PFZCHEUCAM1</p> | <p>PFXSP5700WCD, PFXSP5800WCD</p> |
| <p>Schneider Electric Japan Holdings Ltd. 541-0041 Osaka Japan</p>  <p>INERIS 15ATEX3007X IECEx INE 15.0018X II 3 G D Ex nA nC IIC T4 Gc Ex tc IIIC T135$^{\circ}$C Dc</p> <p>Tamb: 0$^{\circ}$C to +60$^{\circ}$C WARNING - Do not disconnect when circuit is live. - Potential electrostatic charging hazard (see instructions).</p> | <p>Schneider Electric Japan Holdings Ltd. 541-0041 Osaka Japan</p>  <p>INERIS 15ATEX3007X IECEx INE 15.0018X II 3 G D Ex nA IIC T4 Gc Ex tc IIIC T135$^{\circ}$C Dc</p> <p>Tamb: 0$^{\circ}$C to +55$^{\circ}$C WARNING - Do not disconnect when circuit is live. - Potential electrostatic charging hazard (see instructions).</p> |

| | |
|---|---|
| <p>PFXSP5600TPDLC, PFXSP5B41LC</p> | <p>PFXSP5B10LC</p> |
| <p>Schneider Electric Japan Holdings Ltd. 541-0041 Osaka Japan</p>  <p>INERIS 15ATEX3007X IECEx INE 15.0018X II 3 G D Ex nA nC IIC T6 Gc Ex tc IIIC T85°C Dc</p> <p>Tamb: 0°C to +50°C WARNING - Do not disconnect when circuit is live. - Potential electrostatic charging hazard (see instructions).</p> | <p>Schneider Electric Japan Holdings Ltd. 541-0041 Osaka Japan</p>  <p>INERIS 15ATEX3007X IECEx INE 15.0018X II 3 G D Ex nA nC IIC T6 Gc Ex tc IIIC T85°C Dc</p> <p>Tamb: 0°C to +30°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 |  Pro-face by Schneider Electric |
| Product, Type | <p>Human Machine Interface SP5000 Series: PFXSP5500TPD, PFXSP5600TPD, PFXSP5660TPD, PFXSP5700TPD, PFXSP5400WAD PFXSP5500WAD, PFXSP5600WAD, PFXSP5700WCD, PFXSP5800WCD, PFXSP5B10, PFXSP5B40, PFXSP5B41, PFZXCDUEPF1, PFZXCDUECA1, PFZXCDADEXP1, PFZXCDADEXR1, PFZXCHEUFN1, PFZXCHEUCAM1</p> <p>FP5000 Series: PFXFP5600TPD, PFXFP5700TPD</p> <p>Includes models with additional alphanumeric characters at the end of the model number.</p> |
| List of reference and options | See the SP5000 Series and FP5000 Series 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 15ATEX3007X and IECEx INE 15.0018X</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;">or</td> <td style="text-align: center;">II 3 G D</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Ex nA nC IIC T4 Gc</td> <td></td> <td>Ex nA IIC T4 Gc</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Ex tc IIIC T135°C Dc</td> <td></td> <td>Ex tc IIIC T135°C Dc</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Tamb: 0°C to +60°C</td> <td></td> <td>Tamb: 0°C to +55°C</td> </tr> <tr> <td></td> <td></td> <td></td> <td>II 3 G D</td> <td></td> <td>II 3 G D</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Ex nA nC IIC T6 Gc</td> <td></td> <td>Ex nA nC IIC T6 Gc</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Ex tc IIIC T85°C Dc</td> <td></td> <td>Ex tc IIIC T85°C Dc</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Tamb: 0°C to +50°C</td> <td></td> <td>Tamb: 0°C to +30°C</td> </tr> </table> <p>By INERIS: Parc Technologique ALATA, 60550 Verneuil en Halatte - France</p> |  |  |  | II 3 G D | or | II 3 G D | | | | Ex nA nC IIC T4 Gc | | Ex nA IIC T4 Gc | | | | Ex tc IIIC T135°C Dc | | Ex tc IIIC T135°C Dc | | | | Tamb: 0°C to +60°C | | Tamb: 0°C to +55°C | | | | II 3 G D | | II 3 G D | | | | Ex nA nC IIC T6 Gc | | Ex nA nC IIC T6 Gc | | | | Ex tc IIIC T85°C Dc | | Ex tc IIIC T85°C Dc | | | | Tamb: 0°C to +50°C | | Tamb: 0°C to +30°C |
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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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