ST and GP Series
ATEX Instruction Guide

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Concerning the use of ST and GP Series Graphic Panels for applications in potentially explosive atmospheres (Zones 2/22, equipment category 3 Gas Dust)

Digital Electronics Corporation
8-2-52 Nanko Higashi, Suminoe-Ku,
Osaka, 559-0031 JAPAN

Type examination certificate: INERIS 07ATEX3003X and Additions 01/02

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 an imminently hazardous situation, which, if not avoided, **will result in** death or serious injury.

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⚠ WARNING

WARNING indicates a potentially hazardous situation, which, if not avoided, **can result in** death, serious injury, or equipment damage.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation, which, if not avoided, **can result in** injury or equipment damage.

NOTICE

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

DISCLAIMER

All work relating to installation, assembly, connection, setup, maintenance and repair of the equipment must be performed by approved staff, qualified in the appropriate skills. No liability is assumed by Digital Electronics Corporation for any consequences arising out of the use of this product. This document is not intended as an instruction manual for untrained persons. These products must not be used for functions other than those for which they are designed.
Liability for manufacturer traceability is only ensured at the first known delivery destination (serial number specified on the product label).

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.

Relevant products

These recommendations relate to graphic panels intended for installation in areas where explosive atmospheres may occur (Zones 2/22) for Category 3G or 3D equipment (Category 3: normal level of protection - G: Gas - D: Dust).

Permitted zones of application

With regard to the "Relevant Standards" section above, the following permitted zones of application are allowed:

- The graphic panels ST400 series, ST-3200 series and GP-3200 series may be installed in Zones 2/22, II (surface industries), category 3 (normal level of protection), G (Gas) D (Dust), IIC (groups of gases), T4 (T135°C maximal surface temperature).
- The graphic panels GP-3300 series may be installed in Zones 2/22, II (surface industries), category 3 (normal level of protection), G (Gas) D (Dust), IIB (groups of gases),T3 (T200°C maximal surface temperature).
- The graphic panels GP-3400 and GP-3500 series may be installed in Zones 2/22, II (surface industries), category 3 (normal level of protection), G (Gas) D (Dust), IIB (groups of gases), T4 (T135°C maximal surface temperature).
- The graphic panels GP-3600 and GP-3700 series may be installed in Zone 2/22, II (surface industries), category 3 (normal level of protection), G (Gas) D (Dust), IIB (groups of gases), T4 (T135 °C maximal surface temperature). GP-3600 and GP-3700 series have led backlights.

Installation, Operation and Maintenance

Make sure you follow all the recommendations in the Installation Guide of each graphic panel 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.
- Confirm that the externally connected unit and each interface (COM1, COM2, EXT1, EXT2, CF Card, AUX) and the CF Card Cover and the AUX Connector have been securely locked.
- Confirm that the power supply has been turned OFF before disconnecting, replacing or wiring modules.
- Before turning ON, wipe the front panel of the graphic panel with a damp cloth to avoid any electrostatic discharge.
- Only use screw fasteners suitable for installations in explosive atmospheres.
- Check that the Video and Audio Input connectors are fastened correctly using collar and clamp-type accessories to prevent them from coming loose.
- Do not use equipment that has been damaged.
- Confirm that USB cable has been attached with the USB Cable Clamp (for GP-3300 series) or the USB Holder (for ST-3200 series, GP-3200, 3400, 3500, 3600 and 3700 series) before using the USB Host Interface.
- Ensure that the labelling specifications are compatible with the conditions permitted for the hazardous area at the site where it is being used (Zones 2/22 Group II: Surface industries - Category 3: Normal level of protection - G: Gas - D: Dust - IP: degree of protection (protection against solids and liquids) - T: maximum surface temperature).
- Use only recommended wiring accessories when setting up equipment in explosive atmospheres.
- Do not open the cabinet while the system is powered up.

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

⚠ CAUTION

ENVIRONMENTAL HAZARDS TO THE EQUIPMENT

- Before starting up the graphic panel, wait until it has reached the ambient temperature.
- If condensation occurs, do not turn on the graphic panel until it is completely dry again.
- Check the following points to avoid the products overheating during operation:
  - The ambient temperature must not exceed 50˚C (122˚F).
  - The graphic panel must not be exposed to direct sunlight.
  - The vents in the panel casing must not be obstructed.
  - Do not allow layers of dust to form on the graphic panel: it should be cleaned regularly.
- Check that the screw installation fasteners have not been damaged and are always tightened correctly.
- Check that the cable installation fasteners have not been damaged. Replace them if necessary.
- Check that graphic panels are mounted in enclosures satisfying minimum IP54 degree of protection for category 3G and IP6x for category 3D and the requirements relating to the 3G or 3D categories in Zones 2/22 (Category 3: normal level of protection - G: Gas - D: Dust).
- Ensure that graphic panel is mounted according to its manufacturer's specifications.

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

Markings

ATEX and markings, applied to the ST and GP Series modules

Models **ST400 series and ST-3200 series:** **Models GP-3200 series:**	**Models** **GP-3400 and GP-3500 series:**
Digital Electronics Corporation **559-0031 Osaka Japan** **II 3 G D** **Ex nA nC IIC T4 Gc** **Ex tc IIIB T135°C Dc IP64** **INERIS 07ATEX3003X and Addition 01 / 02** **Tamb: 0°C to +50°C** 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.	**Digital Electronics Corporation** **559-0031 Osaka Japan** **II 3 G D** **Ex nA nC IIB T4 Gc** **Ex tc IIIB T135°C Dc IP64** **INERIS 07ATEX3003X and Addition 01 / 02** **Tamb: 0°C to +50°C** 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.

Models **GP-3300 series:**	**Models** **GP-3600 and GP-3700 series:**
Digital Electronics Corporation **559-0031 Osaka Japan** **II 3 G D** **Ex nA nC IIB T3 Gc** **Ex tc IIIB T200°C Dc IP64** **INERIS 07ATEX3003X and Addition 01 / 02** **Tamb: 0°C to +50°C** 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.	**Digital Electronics Corporation** **559-0031 Osaka Japan** **II 3 G D** **Ex nA nC IIB T4 Gc** **Ex tc IIIB T135°C Dc IP64** **INERIS 07ATEX3003X and Addition 01 / 02** **Tamb: 0°C to +50°C** 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.

DÉCLARATION CE DE CONFORMITÉ

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Pour appareils destinés à être utilisés en atmosphères explosibles
(Au titre de la directive Atmosphères Explosibles N° 94/9/CE)

NOUS : Digital Electronics Corporation
8-2-52, Nanko-higashi
Suminoe-ku, Osaka, 559-0031 Japan

Déclarons que les appareils

MARQUE : Pro-face
NOM, TYPE : Graphic Panels
MODELES : GP series and ST series décrits dans l'attestation INERIS 07ATEX3003X et Additions 01 / 02

répondent de par leur conception et leur construction, aux exigences des Directives européennes et normes applicables :

Directive(s) :		Norme(s) :
- Directive ATEX	94/9/CE	- EN 60079-0 - EN 60079-15 - EN 60079-31

sous réserve d'installation, d'entretien et d'utilisation conformes à sa destination, à la règlementation, aux normes en vigueur, aux instructions du constructeur et aux règles de l'art.

Marquage des appareils : II 3 G D
Marquage complémentaire : Ex nA nC IIC or IIB (*) T3/T4 (*) Gc
Ex tc IIIB T135 or 200°C(*) Dc IP64
Tamb. 0°C to +50°C
Attestation d'examen CE de type : INERIS 07ATEX3003X et Additions 01 / 02
Délivré par : INERIS
ParcTechnologique Alata
F- 60055 Verneuil en Halatte

(*) : selon modèles

Yoshihiro Yasumura
President of Pro-face Europe B.V.
Netherlands - 2132 LS Hoofddorp 2013-12

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EC DECLARATION OF CONFORMITY

For units intended to be used in potentially explosive atmosphere
(By way of the Explosive Atmospheres directive No. 94/9/EC)

WE : Digital Electronics Corporation
8-2-52, Nanko-higashi
Suminoe-ku, Osaka, 559-0031 Japan

hereby declare that the units

TRADEMARK : Pro-face
PRODUCT, TYPE : Graphic Panels
MODELS : GP series and ST series listed in certification INERIS 07ATEX3003X and Additions 01/02

which, through their design and construction, meet the requirements of the European Directives and applicable standards:

Directive(s) :		Standard(s) :
- ATEX directive	94/9/CE	- EN 60079-0 - EN 60079-15 - EN 60079-31

It is important that the safety component is 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 standard practices.

Marking of units: II 3 G D
Additional marking: Ex nA nC IIC or IIB (*) T3/T4 (*) Gc
Ex tc IIIB T135 or 200°C Dc IP64
Tamb. 0°C to +50°C
EC type examination certification: INERIS 07ATEX3003X and Additions 01/02
Delivered by: INERIS
ParcTechnologique Alata
F- 60055 Verneuil en Halatte
(*) according to models

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The ST and GP series certified to ATEX are as follows:

Models ST400 series:
• ST401-AG41-24V
• ST403-AG41-24V

Models ST-3200 series:
• AST3211-A1-D24

Models GP-3200 series:
• AGP3200-A1-D24
• AGP3200-T1-D24
• AGP3200-T1-D24-M

Models GP-3300 series:
• AGP3302-B1-D24
• AGP3301-L1-D24
• AGP3301-L1-D24-M
• AGP3300-L1-D24
• AGP3300-L1-D24-M
• AGP3300-L1-D24-PD
• AGP3301-S1-D24
• AGP3300-T1-D24
• AGP3300-T1-D24-M

Models GP-3400 series:
• AGP3400-S1-D24
• AGP3400-T1-D24
• AGP3400-T1-D24-M
• AGP3450-T1-D24
• AGP3450-T1-D24-M

Models GP-3500 series:
• AGP3500-S1-D24
• AGP3500-S1-D24-M
• AGP3500-T1-D24
• AGP3500-T1-D24-M

Models GP-3600 series:
• AGP3600-T1-D24
• AGP3600-T1-D24-M
• AGP3650-T1-D24-M

Models GP-3700 series:
• AGP3750-T1-D24
• AGP3750-T1-D24-M