



(2) Equipment intended for use in potentially explosive atmospheres
Annex VIII - Directive 94/9/EC

# TYPE EXAMINATION CERTIFICATE

(3) Number of the type examination certificate:

**INERIS 15ATEX3007X** 

(4) Equipment:

(1)

# GRAPHIC TERMINALS TYPE PFXSP...\* or PFXFP...\* AND ACCESSORIES TYPE PFXZCD...\*

\* Dots are replaced by letters defining the Ex Equipment version.

(5) Manufacturer:

DIGITAL ELECTRONICS CORPORATION

(6) Address:

Osaka, 559-0031

**JAPAN** 

- (7) This equipment and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.
- (8) INERIS, accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr), certifies that this equipment fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres and submitted to the annex VIII of the Directive. The essential requirements are described in the annex II of the Directive 94/9/EC of the 23rd March 1994.

The rules of certification are available on the website www.ineris.fr

The examinations and the tests are consigned in report No 028779.

- (9) The respect of the Essential Health and Safety Requirements is ensured by:
  - conformity with:

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

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- (10) Sign X, when it is placed following the Number of the type examination certificate, indicates that this equipment is subjected to the special conditions for safe use, mentioned in the annex of this certificate.
- (11) This type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment, these are not covered by this certificate.
- (12) The marking of the equipment will have to contain:



Verneuil-en-Halatte, 2015.09.04



The Chief Executive Officer of INERIS

By delegation

 $(13) \qquad \qquad A N N E X$ 

(14) TYPE EXAMINATION CERTIFICATE N°15ATEX3007X

# (15) DESCRIPTION OF THE EQUIPMENT

Graphic terminals type PFXSP...\* or PFXFP...\* and Accessories type PFXZCD...\* are user interfaces which include a touch-screen display, a box unit and printed circuit boards. They are non-sparking during conditions of normal operation and are protected by protection modes Ex nA and Ex tc, except the touch-screen display which is protected by Ex nC.

(\*) are replaced by letters defining the Ex component version.

#### PARAMETERS RELATING TO THE SAFETY

The terminals have to be supplied with the following rated voltage:

	$U_n (V_{D.C.})$	
PFXSP*	12 / 24	
PFXFP*	12 / 24	

#### **MARKING**

Marking has to be readable and indelible; it has to include the following indications:

DIGITAL ELECTRONICS CORPORATION

JP-OSAKA

PFXSP...\* or PFXSP...\* and PFXZCD...\* (\* see descriptive table of equipments below)

**INERIS 15ATEX3007X** 

(Serial number)

(Year of manufacturing)

Œx ≀II 3 GD

Ex nA nC IIC T4 Gc

Ex tc IIIC T135°C Dc

T<sub>amb</sub>: 0°C to +60°C

#### **WARNINGS:**

- DO NOT DISCONNECT WHEN CIRCUIT IS LIVE
- POTENTIAL ELECTROSTATIC CHARGING HAZARD SEE INSTRUCTIONS.

Marking may be carried out in the language of the country of use.

The equipment has also to carry the marking normally stipulated by its construction standards.

#### **DESCRIPTIVE TABLE OF EQUIPMENTS:**

PFXSP*				
Product	Description			
PFXSP5500TPD	Display unit 10.4 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5600TPD	Display unit 12.1 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5660TPD	Display unit 12.1 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5700TPD	Display unit 15.0 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5400WAD	Display unit 07.0 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5500WAD	Display unit 10.1 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5600WAD	Display unit 12.1 inches, 12-24 V <sub>D.C.</sub>			
PFXSP5B10	Box unit, 12 V <sub>D.C.</sub>			
PFXSP5B40	Box unit, 12 V <sub>D.C.</sub>			

PFXFP*			
Product	Description		
PFXFP5600TPD	Display unit, 12.1 inches, 12-24 V <sub>D.C.</sub>		
PFXFP5700TPD	Display unit, 15.0 inches, 12-24 V <sub>D.C.</sub>		

PFXZCD*				
Product	Description			
PFXZCDEUPF1	Profibus/MPI Slave Unit, 3.3 V <sub>D.C.</sub>			
PFXZCDEUCA1	CANopen Slave Unit, 3.3 V <sub>D.C.</sub>			
PFXZCDEUEC1	EtherCAT Slave Unit, 3.3 V <sub>D.C.</sub>			

# **ROUTINE EXAMINATIONS AND TESTS**

None.

### (16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation of the equipment, subject of this certificate.

Technical Files	NHA5049000	rev. 00	(11 pages)	signed on	2015.03.18
Instruction guide	NHA68356	rev. 00	(07 pages)	signed on	2015.03.18

# (17) SPECIAL CONDITIONS FOR SAFE USE

- Graphic terminals type PFXSP...\* or PFXFP...\* have to be installed in an additional enclosure insuring a minimal protection level IP54 for a Gc equipment, IP6X for Dc equipment in accordance with the requirements of IEC 60079-0: 2012, IEC 60079-15: 2010 and IEC 60079-31: 2013 standards.

The enclosure equipped with graphic terminals type PFXSP...\* or PFXFP...\* and Accessories type PFXZCD...\* have to be certified and shouldn't be opened when an explosive atmosphere is present.

- Graphic terminals type PFXSP...\* or PFXFP...\* and Accessories type PFXZCD...\* present a potential electrostatic charging hazard, safety precautions are defined in the instructions guide.
- Graphic terminals type PFXSP...\* or PFXFP...\* and Accessories type PFXZCD...\* have not to be exposed at direct sunlight.
- The power supply cable, communication cables, USB or mini-USB connectors and RJ45 connectors have not to be disconnected while circuit is live.
- Fuses and batteries have not to be changed in presence of explosive atmospheres.

The other conditions are stipulated in the instructions guide.

# (18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- Conformity to the standards quoted in clause (9).
- All provisions adopted by the manufacturer and defined in the descriptive documents.