



Marine & Offshore  
Division

Certificate number: 40015/A0 BV

File number: AP4620

Product code: 4483H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Digital Electronics Corporation**

Osaka - JAPAN

*for the type of product*

**DISPLAY MONITORS / VIDEO SCREENS / TERMINALS**

HMI's SP5000 series and

Displays FP5000 series

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31B/41B (see item 4.x).

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 19 Oct 2020**

**For BUREAU VERITAS,**

At BV KOBE, on 19 Oct 2015,

Yasuo Hiramatsu



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=7psy0c1y3>

BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

The **SP5000** series are display units with additional box modules installed on rear side.

The **FP5000** series are displays for cut-out mounting.

#### **1.1 - Main characteristics:**

Mounting position: vertical  
 Degree of Protection: IP65/IPX7 (USB hatch without screw)  
 IP66/IPX7 (USB hatch with screw)  
 IP66/IPX7 (without front USB hatch)

#### **1.2 - Modules SP5000 series:**

Model reference	Description	Software version	Hardware version
PFXSP5500TPD	Display unit that enables to use with box unit, 10.4-inch TFT, 16M colours, SVGA 800x600 pixels, analogue Touch Panel(Multi touch), Front USB A/mini-B I/F x 1 each, DC12-24V	1.1	03
PFXSP5600TPD	Display unit that enables to use with box unit, 12.1-inch TFT, 16M colours, XGA 1024x768 pixels, analogue Touch Panel(Multi touch), Front USB A/mini-B I/F x 1 each, DC12-24V	1.1	04
PFXSP5660TPD	Display unit that enables to use with box unit, 12.1-inch TFT, 16M colours, XGA 1024x768 pixels, analogue Touch Panel(Multi touch), Wireless LAN, Front USB A/mini-B I/F x 1 each, DC12-24V	1.0	00
PFXSP5700TPD	Display unit that enables to use with box unit, 15-inch TFT, 16M colours, XGA 1024x768 pixels, analogue Touch Panel(Multi touch), Front USB A/mini-B I/F x 1 each, DC12-24V	1.1	03
PFXSP5400WAD	Display unit that enables to use with box unit, 7.0-inch Wide TFT, WVGA 800x480 pixels, analogue Touch Panel, DC12-24V	1.1	02
PFXSP5500WAD	Display unit that enables to use with box unit, 10.1-inch Wide TFT, WXGA 1280x768 pixels, analogue Touch Panel, DC12-24V	1.1	03
PFXSP5600WAD	Display unit that enables to use with box unit, 12.1-inch Wide TFT, WXGA 1280x768 pixels, analogue Touch Panel, DC12-24V	1.1	03
PFXSP5B10	Box unit that enables to use with display unit, Ethernet I/F x 2, COM I/F x 2, USB A I/F x 2, USB mini-B I/F, SD Card I/F x 2, AUX I/F, Expansion Unit I/F, DC12V from display unit	2.0	01
PFXSP5B40	Box unit that enables to use with display unit, Ethernet I/F x 2, COM I/F x 2, USB A I/F x 3, USB mini-B I/F, CFast Card I/F x 2, SD Card I/F, AUX I/F, Expansion Unit I/F, DVI-D Out I/F, Audio In I/F, DC12V from display unit	4.0	04

#### **1.3 - Modules FP5000 series:**

Model reference	Description	Software version	Hardware version
PFXFP5600TPD	Flat panel display unit, 12.1-inch TFT, 16M colours, XGA 1024x768 pixels, analogue Touch Panel(Multi touch), Front USB A x 1, DVI-D In I/F x 1, USB B I/F x 1, DC12-24V	1.1	03
PFXFP5700TPD	Flat panel display unit, 15-inch TFT, 16M colours, XGA 1024x768 pixels, analogue Touch Panel(Multi touch), Front USB A I/F x 1, DVI-D In I/F x 1, USB B I/F x 1, DC12-24V	1.1	02

### 2. DOCUMENTS AND DRAWINGS:

- Installation Guide SP5000 Series (Display Module); Installation Guide SP5000 Series (Box Module);
- SP5000 Series Hardware Manual;
- Installation Guide FP5000 Series; FP5000 Series User Manual
- EAV9936000 Rev. 00; EAV9938300 Rev. 00; HRB7945400 Rev. 00; HRB7945600 Rev. 00; HRB7973500 Rev. 00;
- HRB7973600 Rev. 00; HRB8089300 Rev. 00; HRB8089500 Rev. 00; HRB8089600 Rev. 00; HRB8089700 Rev. 00;
- HRB1098309 Rev. 00; HRB1372426 Rev. 03; HRB1372928 Rev. 05; HRB1547109 Rev. 00; HRB3722502-02;
- HRB4568726 Rev. 00; HRB4800330 Rev. 04; HRB4801128 Rev. 03; HRB4801628 Rev. 03; HRB7036326 Rev. 03;
- OTD007-660G Rev. C2; S1B8787628 Rev. 06; S1B880132 Rev. 05;

### **3. TEST REPORTS:**

#### **Cosmos Corporation Matsusaka Laboratory:**

- CJ13-117344S4 dated 7-23,2013; CJ13-118732S dated 9-17,2013

#### **Furuno Labotech International Co. Ltd.:**

- FLI12-15-007 dated 25 March 2015; FLI12-15-008 dated 25 March 2015; FLI12-15-009 dated 25 March 2015;  
- FLI12-15-010 dated 25 March 2015; FLI12-15-011 dated 25 March 2015; FLI12-15-012 dated 25 March 2015;  
- FLI12-15-013 dated 25 March 2015; FLI12-15-014 dated 25 March 2015; FLI12-15-015 dated 25 March 2015;  
- FLI12-15-016 dated 25 March 2015; FLI12-15-017 dated 25 March 2015; FLI12-15-018 dated 25 March 2015

### **4. APPLICATION/LIMITATION:**

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - Bureau Veritas Environmental Category, **EC Code: 31B/41B.**

4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone if the 24V DC power supply lines are equipped with a filter having the following rating: L= 4x 4.5mH; C= 2x 1µF; C= 2x 4.7nF; R= 220kOhm (e.g. Schaffner, Type FN2070-10-06 or equivalent).

4.5 - Documents relating to each application are to be submitted to the Society's examination prior fitting on board.

4.6 - Only Hardware and Firmware / Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.

4.7 - Depending on the Application, Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II or III Equipment.

### **5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above mentioned products are to be supplied by **Digital Electronics Corporation** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.

5.3 - **Digital Electronics Corporation** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

**Wuxi ProFace Electronics Co. Ltd.**  
**20 Hanjiang Road**  
**Wuxi New District, Wuxi,**  
**Jiangsu 214028**  
**P. R. CHINA**

5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

### **6. MARKING OF PRODUCT:**

- Maker's name or trademark.

- Equipment type or model identification.

- Date of manufacture and/or serial number.

- The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.

- When the marking and the title and version of the software are displayed only on the display, such information shall also be included in the equipment manual.

### **7. OTHERS:**

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **Digital Electronics Corporation - JAPAN**, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate is linked to Type Approval Certificate N° 40099/A0 BV issued by the Society.

\*\*\* END OF CERTIFICATE \*\*\*