



CERTIFICATE NUMBER

12-YO870960-PDA

DATE

23 April 2012

ABS TECHNICAL OFFICE

Yokohama Engineering Services

# CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of  
**DIGITAL ELECTRONICS CORPORATION - OSAKA**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

PRODUCT: **Monitor, Graphic Panels**

MODEL: **Pro-Face GP4000 Series**

This Product Design Assessment (PDA) Certificate 12-YO870960-PDA, dated 23/Apr/2012 remains valid until 23/Apr/2017 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

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**PRODUCT:**

**Monitor, Graphic Panels**

**MODEL:**

**Pro-Face GP4000 Series**

**Intended Service:**

Human Machine Interface for monitoring and control systems in marine applications.

**Description:**

See Attached Sheet.

**Ratings:**

See Attached Sheet.

**Service Restriction:**

1. Unit Certification is not required for DIGITAL ELECTRONICS CORPORATION as the original supplier. However, unit certification in accordance with 4-9-6/Table 2 of the Rules is required by the user to customize this equipment where this equipment is used for Category II or III services in 4-9-6/Table 1 in presence of the Surveyor after assemblage. The tests are to be carried out preferably at the assembled plant before installation onboard. However, if it is impracticable, the tests may be carried out after installation onboard.
2. Failure analysis for safety related functions only and Analysis regarding existence and fulfillment of programming procedures for safety related functions in association with 4-9-6/Table 2 is to be additionally submitted when this component is used for systems assigned as Category III.

**Comments:**

1. The computer-based system for the subject equipment is assigned to Category II.
2. Evidence is required to be kept by the manufacturer in accordance with 4-9-6/Table 2 of the Rules regarding the computer-based system.

**Notes / Drawings / Documentation:**

1. ISO 9001:2008/JIS Q 9001:2008 Certification Doc.No. JQA-1367.
2. Flame Retardance documented on NSH-11032-07 dated 27 October 2011.
3. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
4. Environmental Test Report Doc.No.NSH-11032-TR dated 06/MAR/2012.
5. Surveyor Report Doc.No.KO2089642 dated 31/JAN/2012.

## **DIGITAL ELECTRONICS CORPORATION**

### **Term of Validity:**

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## **STANDARDS**

### **ABS Rules:**

2012 Steel Vessel Rules 1-1-4/7.7, 1-1-Appendix 3, 4-9-6 (Category II) and 4-9-7

### **National:**

NA

### **International:**

IACS UR E10 (2006) and E22 (2010)

### **Government Authority:**

NA

### **EUMED:**

NA

### **Others:**

NA

## Product Design Assessment (PDA) Certificate Attachment for Component Details

**PDA Certificate No:** 12-YO870960-PDA

**Entry Date:** 23 April 2012

**Expire Date:** 23 April 2017

**Company:** Digital Electronics Corporation

**Product/Equipment:** Monitor, Graphic Panels

**Model:** Pro-Face GP4000 Series

### Description

	Model	Descriptions
GP-4600 Series	PFXGP4601TAD	12.1" SVGA TFT color LCD, analog touch panel, DC type, with / without coating on PCBA
	PFXGP4601TMD	12.1" SVGA TFT color LCD, matrix touch panel, DC type, with / without coating on PCBA
	PFXGP4603TAD	12.1" SVGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with / without coating on PCBA
GP-4500 Series	PFXGP4501TADW	10.4" VGA TFT color LCD, analog touch panel, DC type, small memory, with / without coating on PCBA
	PFXGP4501TAD	10.4" VGA TFT color LCD, analog touch panel, DC type, with / without coating on PCBA
	PFXGP4501TMD	10.4" VGA TFT color LCD, matrix touch panel, DC type, with / without coating on PCBA
	PFXGP4503TAD	10.4" VGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with / without coating on PCBA
GP-4400 Series	PFXGP4401TAD	7.5" VGA TFT color LCD, analog touch panel, DC type, with / without coating on PCBA
	PFXGP4401WADW	7.0" WVGA Wide TFT color LCD, analog touch panel, DC type, small memory, with / without coating on PCBA
GP-4300 Series	PFXGP4301TAD	5.7" QVGA TFT color LCD, analog touch panel, DC type, with / without coating on PCBA
	PFXGP4303TAD	5.7" QVGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with / without coating on PCBA
	PFXGP4301TADW	5.7" QVGA TFT color LCD, analog touch panel, DC type, small memory, with / without coating on PCBA
GP-4200 Series	PFXGP4201TAD	3.5" QVGA TFT color LCD, analog touch panel, DC type, with / without coating on PCBA
	PFXGP4203TAD	3.5" QVGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with / without coating on PCBA
	PFXGP4201TADW	3.5" QVGA TFT color LCD, analog touch panel, DC type, small memory, with / without coating on PCB

### Remarks

\*All models may be followed by any letter or number that indicates PCBA coating or software combinations.

**Product Design Assessment (PDA) Certificate Attachment for Component Details**

**PDA Certificate No:** 12-YO870960-PDA  
**Entry Date:** 23 April 2012  
**Expire Date:** 23 April 2017  
**Company:** Digital Electronics Corporation  
**Product/Equipment:** Monitor, Graphic Panels  
**Model:** Pro-Face GP4000 Series

**Ratings and General Specifications**

	<b>GP-4600 Series</b>	<b>GP-4500 Series</b>	<b>GP-4400 Series</b>	<b>GP-4300 Series</b>	<b>GP-4200 Series</b>
<b>Rated Input Voltage</b>	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
<b>Input Voltage Limits</b>	19.2 to 28.8 VDC	19.2 to 28.8 VDC	19.2 to 28.8 VDC	19.2 to 28.8 VDC	19.2 to 28.8 VDC
<b>Power Consumption</b>	17 W or less	17 W or less	12 W or less	10.5 W or less	9.6 W or less
<b>Surrounding Air Temperature</b>	0 to 55 °C (32 to 131 °F)	PFXGP4501TAD, PFXGP4501TMD, PFXGP4503TAD: 0 to 55 °C (32 to 131 °F)  PFXGP4501TADW: 0 to 50 °C (32 to 122 °F)	PFXGP4401TAD: 0 to 55 °C (32 to 131 °F)  PFXGP4401WADW: 0 to 50 °C (32 to 122 °F)	PFXGP4301TAD, PFXGP4303TAD: 0 to 55 °C (32 °F to 131 °F)  PFXGP4301TADW: 0 to 50 °C (32 to 122 °F)	0 to 50 °C (32 to 122 °F)
<b>Storage Temperature</b>	-20 to 60 °C (-4 to 140 °F)	-20 to 60 °C (-4 to 140 °F)	-20 to 60 °C (-4 to 140 °F)	-20 to 60 °C (-4 to 140 °F)	-20 to 60 °C (-4 to 140 °F)
<b>External Dimensions</b>	W315 x H241 x D56 mm (W12.40 x H9.49 x D2.20 in.)	PFXGP4501TAD, PFXGP4501TMD, PFXGP4503TAD: W272.5 x H214.5 x D57 mm (W10.73 x H8.44 x D2.24 in.)  PFXGP4501TADW: W315 x H241 x D56 mm (W12.40 x H9.49 x D2.20 in.)	W218 x H173 x D60 mm (W8.58 x H6.81 x D2.36 in.)	W169.5 x H137 x D59.5 mm (W6.67 x H5.39 x D2.34 in.)	W132 x H106 x D42 mm (W5.20 x H4.17 x D1.65 in.)
<b>Weight</b>	2.5 kg (5.5 lb) or less (main unit only)	PFXGP4501TAD, PFXGP4501TMD, PFXGP4503TAD: 2.0 kg (4.4 lb) or less (main unit only)  PFXGP4501TADW: 2.5 kg (5.5 lb) or less (main unit only)	1.2 kg (2.6 lb) or less (main unit only)	0.8 kg (1.8 lb) or less (main unit only)	0.4 kg (0.9 lb) or less (main unit only)