

Certificate No: TAA00000CD

TYPE APPROVAL CERTIFICATE

This is to certify: That the Peripheral Equipment

with type designation(s) Touch Screen graphic terminals

Issued to DIGITAL ELECTRONICS CORPORATION Osaka, Osaka Pref, Japan

is found to comply with DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes: See page 2

This Certificate is valid until **2020-06-30**. Issued at **Høvik** on **2016-05-18**

DNV GL local station: Kobe

Approval Engineer: Nils Jarem

for **DNV GL**

Odd Magne Nesvåg Head of Section

.....

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: 262.1-009048-3 Certificate No: TAA00000CD

Product description

Pro-Face Graphic Operator Interfaces as listed below:

Pro-face Reference	Temper- ature Class	Humidity Class	Vibration Class	EMC Class	Enclosure Class	Notes
GP4105G1D						
GP4105W1D						
GP4106G1D				D ¥		
GP4106W1D	В	В	А	B*	В	IP65 (front panel only)
GP4107G1D						
GP4107W1D						
PFXGM4201TAD						
PFXGM4301TAD	1	В	A	B*	В	IP65 (front panel only)
PFXXM4200TP	В					
PFXXM4300TP						
PFXGM4B01D						
PFXLM4301TADAC		В		В*	В	
PFXLM4301TADAK						
PFXLM4301TADDC	•					
PFXLM4301TADDK						
PFXLM4201TADAC						IP65 (front panel only)
PFXLM4201TADAK						
PFXLM4201TADDC						
PFXLM4201TADDK	В		A			
PFXLM4B01DAC						
PFXLM4B01DAK						
PFXLM4B01DDC						
PFXLM4B01DDK						
PFXZXMADSM31						
PFXZXMADSM51						
ST401-AG41-24V	•	А	А	В*	В	IDGE (front nonel only)
ST403-AG41-24V	A					IP65 (front panel only)
AGP3300-T1-D24	A	A	A		В	
AGP3400-T1-D24				A*		
AGP3450-T1-D24						IDEE (front papel only)
AGP3500-T1-D24						
AGP3550-T1-D24						IP65 (front panel only)
AGP3600-T1-D24						
AGP3650-T1-D24						
AGP3750-T1-D24						

* To comply with EMC requirements, see application/limitation

Place of manufacture

Wuxi Pro-face Electronics Ltd. No.20 Hanjiang Road National Hi-tech Industrial Development Zone Wuxi, Jiangsu 214028 P.R. CHINA

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

Products have been tested up to 20% nominal voltage variation as for equipment not connected to the battery during charging.

To cover EMC class A and B requirements for devices marked with * above, installation requirements according to Certification Note, doc. No.:10DD-4GD00017, must be followed.

For installation on bridge, the equipment to be installed not less than 5m away from magnetic compass as required in 11.2 of IEC60945.

Pro-face		
Reference	Manuals incl. drawings	Test report No.
GP4105G1D	GP-4100 Series	10C00025RPT01 dated 2010-07-30
GP4105W1D	Hardware Manual	10C00026RPT02 dated 2010-07-15
GP4106G1D	File:	HBR-RL-10.123 dated 2010-07-14
GP4106W1D	GP4100-MM01-ENG-PDFo	CJ09-090361S dated 2009-11-18
GP4107G1D		
GP4107W1D		
PFXGM4201TAD	GP-4201TM/GP4301TM/	0908M01V dated 2009-11-08
PFXGM4301TAD	4000M Hardware Manual	1004M01V dated 2010-04-28
PFXXM4200TP	File:	A09-065-WT dated 2010-02-12
PFXXM4300TP	GP42_43TM-MM01-ENG-PDFh	A10-035-WT dated 2010-10-18
PFXGM4B01D]	CJ11-104232S dated 2011-08-1
		CJ11-104232S2 dated 2011-05-24
PFXLM4301TADAC	LT-4201TM/4301TM	201214-042 dated 2013-03-11
PFXLM4301TADAK		201214-063 dated 2014-05-29
PFXLM4301TADDC	File:	201214-073 dated 2014-05-29
PFXLM4301TADDK	lt4000m_i	201214-083 dated 2014-05-29
PFXLM4201TADAC		201214-443 dated 2014-06-04
PFXLM4201TADAK		ET2014-5-619 dated 2014-06-06
PFXLM4201TADDC		
PFXLM4201TADDK		
PFXLM4B01DAC		
PFXLM4B01DAK		
PFXLM4B01DDC		
PFXLM4B01DDK		
PFXZXMADSM31		
PFXZXMADSM51		
ST401-AG41-24V	ST Series User Manual	0510S01C dated 2005-12-31,
ST403-AG41-24V	File:	0510S01V dated 2005-09-29
AGP3300-T1-D24	ST40X-MM01-ENGf	0510S02C dated 2005-12-31
AGP3400-T1-D24		0510S02V dated 2005-09-29
AGP3450-T1-D24	GP3000 Series	0510S03C dated 2006-08-14
AGP3500-T1-D24	Hardware Manual	0510S04V dated 2005-12-31
AGP3550-T1-D24	File:	0510S05V dated 2006-02-21
AGP3600-T1-D24	GP3000-MM01-ENG-PDFab	0510S06V dated 2006-02-21
AGP3650-T1-D24		0510S07V dated 2005-12-12
AGP3750-T1-D24		0510S08V dated 2005-11-30

Type Approval documentation

Job Id: 262.1-009048-3 Certificate No: TAA00000CD

Pro-face Reference	Manuals incl. drawings	Test report No.
		0510S09V dated 2005-12-31
		0510S10V dated 2005-12-12
		0510S11V dated 2005-12-31
		0510S12V dated 2006-08-02
		0510S14V dated 2006-08-02
		0510S15V dated 2006-08-02
		0510S16V dated 2006-08-02
		0510S17V dated 2006-10-31
		0510S18E dated 2006-11-03
		2006-0134-01A dated 2006-08-24
		2006-0134-02A dated 2006-08-24
		2006-0134-03A dated 2006-08-24
		2006-0134-04A dated 2006-08-24
		2006-0134-05 dated 2006-11-10
		2006-0134-06 dated 2006-11-10
		2006-0134-07 dated 2006-11-10
		2006-0134-08 dated 2006-11-10
		2006-0412-00 dated 2006-07-25
		2006-0412-01 dated 2006-07-25
		2006-0412-02 dated 2006-07-25
		2006-0412-03 dated 2006-07-25
		2006-0412-04 dated 2006-07-25
		2006-0412-05 dated 2006-07-25
		200604-3056C-R1-E dated 2006-07-10
		200604-3056C-R2-E dated 2006-07-10
		200604-3056C-R3-E dated 2006-07-10
		200604-3056C-R4-E dated 2006-07-10
		R0510281C1-E dated 2005-12-19
		R0510281C2-E dated 2005-12-19
	te, doc. No.: 10DD-4GD00017 da	
ype approval p	periodical assessment report for A	A-12799, DNV GL Kobe 2015-08-07.

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product Products will be marked as

Pro-face Digital Electronics Corp. Japan In addition, model number and rating as listed under the product description shall be included.

Job Id: 262.1-009048-3 Certificate No: TAA00000CD

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE