

## Type Approval Certificate

*This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.*

This certificate is issued to:

|                                |   |
|--------------------------------|---|
| <b>APPLICANT</b>               | Pro-face Europe B.V.<br>Wegalaan 32<br>2132 JC Hoofddorp<br>The Netherlands   |
| <b>PRODUCER</b>                | Digital Electronics Corporation<br>8-2-52 Nankohigashi, Suminoe-Ku, Osaka<br>559-0031<br>JAPAN  |
| <b>PLACE OF<br/>PRODUCTION</b> | Wuxi Pro-face Electronics Co., Ltd.<br>20 Hanjiang Road,<br>National Hi-tech Industrial Development District,<br>Wuxi, Jiangsu, 214028<br>P. R. CHINA |
|                                | Digital Electronics Corporation<br>2-6-1 Ayumino, Izumi, Osaka<br>594-1157<br>JAPAN   |

|                        |                  |
|------------------------|------------------|
| <b>Certificate No.</b> | 10/30009         |
| <b>Issue Date</b>      | 31 December 2010 |
| <b>Expiry Date`</b>    | 31 December 2015 |
| <b>Sheet</b>           | 1 of 3           |

  
G.J Vromans  
Type Approval Department  
Lloyd's Register EMEA

Lloyd's Register EMEA  
P.O. Box 701, 3000 AS Rotterdam

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|                                    |   |
|------------------------------------|---|
| <b>DESCRIPTION</b>                 | Monochrome 3.4" LCD Display unit  |
| <b>TYPE</b>                        | GP4105, GP4106, GP4107  |
| <b>APPLICATION</b>                 | Marine application or use in environmental category ENV 2 as defined in LR Type Approval System, Test Specification no.1, 2002  |
| <b>LIMIT</b>                       | DC power supply to be connected via mains filter type: Schaffner FM2070-3-06  |
| <b>STANDARD</b>                    | EN61000-6-4:2007 , EN61000-6-2:2005 and Test specification no. 1, 2002 ENV2   |
| <b>RATINGS</b>                     | Voltage: 24Vdc  |
| <b>SERIAL LINE,<br/>CONNECTION</b> | <p>GP4105G1D, Display 3.4" STN Monochrome LCD panel, color: Green, Orange, Red, serial port RS232C, one USB port type-A, one USB port Type-B</p> <p>GP4105W1D, Display 3.4" STN Monochrome LCD panel, color: White, Pink, Red, serial port RS232C, one USB port type-A, one USB port Type-B</p> <p>GP4106G1D, Display 3.4" STN Monochrome LCD panel, color: Green, Orange, Red, serial port RS422/485, one USB port type-A, one USB port Type-B</p> <p>GP4106W1D, Display 3.4" STN Monochrome LCD panel, color: White, Pink, Red, serial port RS422/485, one USB port type-A, one USB port Type-B</p> |
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GP4107G1D, Display 3.4" STN Monochrome LCD panel, color: Green, Orange, Red, MPI serial port D-Sub9 RS485, one USB port type-A, one USB port Type-B

GP4107W1D, Display 3.4" STN Monochrome LCD panel, color: White, Pink, Red, MPI serial port D-Sub9 RS485, one USB port type-A, one USB port Type-B

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."*

*The Design Appraisal Document No.1091542 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

*"When Rules and Standards mentioned in this certificate are changed within the validity of this certificate, than this certificate becomes no longer valid."*

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| Document number<br>ROT.TA.1091542 |
| Issue number<br>1                 |

**DESIGN APPRAISAL DOCUMENT**

|                          |   |
|--------------------------|---|
| Date<br>31 December 2010 | Quote this reference on all future communications<br>ROT.TA.1091542/GJV/AWV |
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**LLOYD'S REGISTER TYPE APPROVAL SYSTEM, 2002.**

**Issued to: Proface Europe B.V.**  
**for: Monochrome 3.4" LCD Display unit**  
**TYPE APPROVAL CERTIFICATE No. 10/ 30009**

The under noted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

Inspection and Surveillance of Production Facilities form, date 30 September 2010 and 16 December 2010  
 Product brochure  
 Dimension drawings: 08DD-3PT00398-1, 08DD-3PT00399-1 and 08DD-3PT00381-1.  
 Circuit diagrams: D08026B and D08025B  
 Installation manual  
 Hardware manual

**TEST REPORTS**

|                                       |                          | <b>Date</b> |
|---------------------------------------|--------------------------|-------------|
| Environmental Test Validation Report: | 10C00026RPT02, 23 pages, | 15/07/2010  |
| Vibration Test Report:                | 10C00672RPT01, 16 pages, | 14/07/2010  |
| EMC Tests report GP4107:              | 10C00025RPT01, 91 pages, | 30/07/2010  |
| Emission Test report GP4105           | E90227-1e, 17 pages,     | 20/11/2009  |
| Emission Test report GP4106           | E90227-2e, 17 pages,     | 20/11/2009  |
| Immunity Test report GP4105           | S90227-1, 30 pages,      | 20/11/2009  |
| Immunity Test report GP4106           | S90227-2, 35 pages,      | 20/11/2009  |

**Supplementary Type Approval Terms and Conditions**

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*

  
 G.J. Tromans / A.W. van der Velden  
 Senior Surveyor  
 Type Approval Department