

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:


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| PRODUCER | Maics Ltd |
| PLACE OF PRODUCTION | PLP Automation 26 Botsari Street Pireaus, 18538 Greece |
| DESCRIPTION | Bulk carrier water ingress detection system |
| TYPE | (3/11) LD-BFIM <u>Comprising:</u> Control panel, Pepperl and Fuchs Z series zener safety barriers Trafag 8838/8858 pressure sensor |
| APPLICATION | Marine use in environmental categories ENV1 and ENV2 as described in Lloyd's Register Test Specification No. 1: 2002. |
| SPECIFIED STANDARD | SOLAS – Chapter XII Regulation 12 (Resolution MSC.134 (76). IMO – Resolution MSC.145 (77): Dated 5 June 2003. IACS – UI No. SC180: Dated September 2003. |
| ADDITIONAL TESTS | Low Temperature: +5° C ± 3° C. Dry heat: 55° C ± 2° C for 16 hours. Enclosure Protection – Trafag 8838/8858 sensor: IP 68 (Pressurised immersion in salt water, 22.31 meter depth for 20 days). |

"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. 04/00033 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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| Certificate No. | 04/00033 |
| Issue Date | 29 March 2004 |
| Expiry Date | 28 March 2009 |
| Sheet | 1 of 1 |

Lloyd's Register EMEA
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