



EPSILON

1 EC - Type Examination Certificate

2 Equipment intended for use in potentially explosive atmospheres

3 Certificate Number: EPSILON 06 ATEX 2073

4 Equipment: Marine Lantern Type Maxlumina ML300/ML155

5 Manufacturer: Tideland Signal Corporation

6 Address: 4310 Directors Row, Houston, Texas, 77092, USA

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to

8 Epsilon, Notified Body number 1712 in accordance with Article 9 of the Council directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the directive

The examination and test results are recorded in confidential report no: RETS(A)0221/A/1


9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:

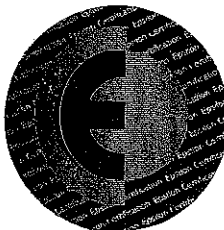
EN 50014:1997 E incl. A1+A2, EN50018:2000, EN 50019:2000, EN50020:2002, EN50028:1988

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

12 The marking of the equipment shall include the following:

| | | |
|---|--|---------------------------|
|  II 2 G EEx e d IIC T3 | $T_{amb} -40^{\circ}C$ to $+55^{\circ}C$ | (ML300 – LC-6EX) |
| EEx e m ib IIC T3 | $T_{amb} -40^{\circ}C$ to $+55^{\circ}C$ | (ML300 – Duoflash) |
| EEx e m ib IIC T3 | $T_{amb} -40^{\circ}C$ to $+55^{\circ}C$ | (ML155 – Duoflash) |
| EEx e m ib IIC T2 | $T_{amb} -40^{\circ}C$ to $+55^{\circ}C$ | (DuoFlash OMNIBUS SL-400) |
| EEx e m ib IIC T3 | $T_{amb} -40^{\circ}C$ to $+40^{\circ}C$ | (DuoFlash OMNIBUS SL-400) |



On behalf of Epsilon

Sean L Clarke
Director

Date: 27 Oct 2006



13 **Schedule**

14 Certificate Number: EPSILON 06 ATEX 2073

15 **Description of Equipment or protective system**

The 'Maxlumina' marine lantern consists of two sizes of enclosure designated as the ML300 and ML155. The ML300 can be fitted with either a 'LC-6EX' lampchanger unit (1 to 6 lamps) or the 'Duoflash' filament flasher unit. The ML155 is fitted with the 'Duoflash' filament flasher unit. The ML300 when fitted with the alternative lamp and flasher unit is designated as the Type ML-300-Ex MaxLumina DuoFlash OMNIBUS SL-400.

16 **Descriptive Documents**

16.1 Report No: RETS(A)0221/A/1

16.2 Drawings:

| Number | Sheets | Title | Rev. | Date |
|------------------|--------|---|------|-------------|
| 7511064-CTL | 1 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 7511064-CTL | 2 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 7511064-CTL | 3 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 7511064-CTL | 4 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 7511064-CTL | 5 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 7511064-CTL | 6 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 7511064-CTL | 7 of 7 | LC-6EX Certification Drawing General Arrangement | A | 25 April 02 |
| 010.1136-CTL | 1 of 1 | Control Drawing ML155 Lantern Duoflash Omnibus | D | 27 Oct 03 |
| 010.1137-CTL | 1 of 2 | Control Drawing ML300 Lantern Duoflash Omnibus/LC-6EX | E | 27 Oct 03 |
| 010.1137-CTL | 2 of 2 | Control Drawing ML300 Lantern Duoflash Omnibus/LC-6EX | E | 27 Oct 03 |
| 751.1045-CTL | 1 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 2 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 3 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 4 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 5 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 6 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 7 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 751.1045-CTL | 8 of 8 | Assembly Twin-Filment Flasher Duoflash Omnibus | D | 27 Jan 98 |
| 204.1205-CTL | 1 of 2 | Control Drawing Nameplate ML-300-Ex Duoflash Omnibus SL-400 | B | 2005-02-25 |
| 204.1205-CTL | 2 of 2 | Control Drawing Nameplate ML-300-Ex Duoflash Omnibus SL-400 | B | 2005-02-25 |
| 342.1051-CTL | 1 of 2 | Control Drawing Base Plate | A | 1977-06-10 |
| 530.1466-SCH-CTL | 1 of 1 | Schematic Main Light Fuse Board | C | 1996-03-01 |
| 530.1466-AWK-CTL | 1 of 1 | PCB Control Drawing Fuse Board ML-300-Ex | B | 1996-03-01 |
| 530.1467-AWK-CTL | 1 of 1 | PCB Control Drawing FLMC-4 Main Light | F | 1997-03-14 |
| 530.1467-CTL | 1 of 3 | PC ASSY, FLMC 14 Main Light | G | 1997-03-14 |
| 530.1467-SCH-CTL | 1 of 2 | Main Light Board | J1 | 1999-07-21 |
| 751.1033-CTL | 1 of 1 | TL-1000 lampholder without lampchanger | C | 2005-02-04 |



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17 Conditions of Certification

17.1 Special Conditions for Safe Use

None.

17.2 Conditions for Use

1. The manufacturer shall perform the routine tests as detailed in clauses 7.1, 7.2 and 7.3 of EN50028 when the lamp and flasher unit is fitted.
2. The lamp and flasher unit when fitted shall be protected with an over current device that can break a prospective short circuit current of 4000A
3. The flameproof enclosures are exempt from routine pressure tests.

18 Essential Health and Safety Requirements

Essential Health and Safety Requirements not covered by section 9 of this certificate are covered by the manufacture's installation instructions.

The manufacturer shall inform the notified body of any modifications to the design of the product described by this schedule

