TYPE EXAMINATION
CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

1. **Type Examination Certificate Number:** **ITS16ATEX201047** **Issue 3**

2. **Product:** M100X – Man Overboard Device

3. **Manufacturer:** Ocean Signal Ltd.

4. **Address:** Unit 4,
Ocivan Way,
Margate,
CT9 4NN,
United Kingdom

5. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

6. Intertek Testing and Certification Limited, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the products intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

7. Compliance with the Essential Health and Safety Requirements has been assured by compliance with BS EN IEC 60079-0:2018 & BS EN 60079-11:2012 except in respect of those requirements referred to within item 14 of the Schedule.

8. If the sign “X” is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.

9. This Type Examination Certificate relates only to the design of the specified product and not to specific items subsequently manufactured.

10. The marking of the product shall include the following:

II 3 G Ex ic IIB T4 Gc

-20°C ≤ Ta ≤ +55°C

Certification Officer: P Moss **Date:** 07-Sep-2020

SCHEDULE:

Type Examination Certificate Number: **ITS16ATEX201047** **Issue 3**

11. Description of Equipment or Protective System

The Ocean Signal M100X is an intrinsically safe emergency location beacon designed to be affixed to an individual's lifejacket where when activated will lock onto its GPS location and transmit this signal through two transmitters to nearby search and rescue vessels.

The Ocean Signal M100X can also be rebranded under 'Viking Life-Saving Equipment', with the Model No. 1063354.

The two transmitters in the M100X are:

An AIS (Automatic Identification System) transmitter which operates on two frequencies, 161.975MHz & 162.025MHz. Each message transmission contains the GPS position.

A homing signal which transmits on 121.5MHz. This is amplitude modulated with a swept audio tone and operates continuously.

The equipment consists of a plastic enclosure housing the battery pack and PCBs, the enclosure provides the degree of protection minimum IP67. The equipment is attached to the lifejacket using one of the supplied fixtures.

Visual indication for the user that the equipment is active is provided by a tri colour LED on the front of the unit.

12. Report Number

Intertek Report Ref: G102250290 Issue: 1 Dated: June 2016

Intertek Report Ref: G103484596LHD-001 Issue 1 Dated June 2018

Intertek Report Ref: 103910278LHD-001 Issue 1 Dated October 2019

Intertek Report Ref: 104396574LHD-001 Issue 1 Dated August 2020

13. Special Conditions of Certification

(a). Special Conditions of Use

- None.

(b). Conditions of Manufacture

- None.

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 104396574LHD-001 Issue 1 Dated August 2020

SCHEDULE:

Type Examination Certificate Number: **ITS16ATEX201047** **Issue 3**

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Label: M100X Ex Approvals	163S-02093	01.03	4/6/18
*Battery Assembly MSLD	901S-01926	01.02	30/07/20
GA MSLD Ex	903S-02067	01.00	4/5/16
Case Front Assembly MSLD Ex	903S-02068	01.00	9/2/16
*M100X MSLD Safety Data (Ocean Signal) (2 Sheets)	912S-02081	01.10	13/08/2020
*Schematic MSLD M100X (7 Sheets)	910S-01908	05.00	30/07/20
*PCB Assy MSLD M100X (4 Sheets)	800S-01908	05.00	30/07/20
*BOM – PCB Assy: Professional MOB M100X (6 Sheets)	800S-01908	05.00	30/07/20
*M100X MSLD Safety Data (Viking) (2 Sheets)	912S-02259	01.10	13/08/2020

*Note: An * is included before the title of documents that are new or revised.*

16. Details of Certificate changes Issue 1 **Intertek Project No. G103484596**

To permit the following changes:

- Revision to marking label.

The following drawings have changed as part of this variation:

Title:	Drawing No.:	Rev. Level:	Date:
Label: M100X Ex Approvals	163S-02093	01.03	4/6/18

SCHEDULE:

Type Examination Certificate Number: **ITS16ATEX201047** **Issue 3**

17. Details of Certificate changes Issue 2 **Intertek Project No. G103910278**

To permit the following changes:

- Update to the latest version of BS EN IEC 60079-0:2018.
- Modification to the circuit to improve the performance of the 121.5MHz transmitter
- PCB revision to support the circuit changes.

The following drawings have changed as part of this variation:

Title:	Drawing No.:	Rev. Level:	Date:
Schematic MSLD M100X (7 Sheets)	910S-01908	04.00	29/05/2019
PCB Assy MSLD M100X (4 Sheets)	800S-01908	04.00	29/05/2019
BOM – PCB Assy: Professional MOB M100X (6 Sheets)	800S-01908	04.00	29/05/2019

18. Details of Certificate changes Issue 3 **Intertek Project No. G104396574**

To permit the following changes:

- Modification to the circuit for increased stability.
- PCB revision to support the circuit changes.
- Minor document revisions/corrections

The following drawings have changed as part of this variation:

Title:	Drawing No.:	Rev. Level:	Date:
Battery Assembly MSLD	901S-01926	01.02	30/07/20
Schematic MSLD M100X (7 Sheets)	910S-01908	05.00	30/07/20
PCB Assy MSLD M100X (4 Sheets)	800S-01908	05.00	30/07/20
BOM – PCB Assy: Professional MOB M100X (6 Sheets)	800S-01908	05.00	30/07/20
M100X MSLD Safety Data (Ocean Signal) (2 Sheets)	912S-02081	01.10	13/08/2020
M100X MSLD Safety Data (Viking) (2 Sheets)	912S-02259	01.10	13/08/2020