



BSH
BUNDESAMT FÜR
SCHIFFFAHRT
UND
HYDROGRAPHIE

Notified Body authorised by
BSH 0800-S23/4822:013

Page 1 of 5

Certificate No: LR22308967MB

Issue Date: 31/08/2022

Expiry Date: 09/06/2025

EC Type Examination (Module B) Certificate

This is to certify that:

LLOYD'S REGISTER Marine Deutschland GmbH (LRMD), designated as a "notified body" based on the notification of the Federal Maritime and Hydrographic Agency of Germany, did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU and the valid Commission Implementing Regulation (EU) in force indicating design, construction and performance requirements and testing standards for marine equipment, subject to the conditions below and the attached Schedule which also forms part of this Certificate.

Manufacturer	Crowcon Detection Instruments Ltd.,
Address	172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD, United Kingdom (UK)
Reference	Marine Equipment Directive (MED) 2014/90/EU, Regulation (EU) 2022/1157
Regulation Item (No. & Item Designation)	MED/3.30b Portable Oxygen Analysis and/or Gas Detection Equipment: - category 2: (explosive gas atmospheres)
Product Type	PORTABLE OXYGEN ANALYSIS AND GAS DETECTION EQUIPMENT
Product Description	PORTABLE OXYGEN ANALYSIS AND GAS DETECTION EQUIPMENT
Specified Standard	EN 60945:2002 Including IEC 60945 Corrigendum 1: 2008, Cat 2: (Explosive Gas Atmospheres) EN 50104: 2010, EN 60079-0: 2018 EN60079-1:2014, EN60079-11: 2012 EN 60079-29-1: 2016
Trade Name	SURVITEC - T4

Lloyd's Register Marine Deutschland GmbH, Überseeallee 10, D-20457 Hamburg, Germany.
A member of the Lloyd's Register group

Matt Higgins

Senior Electrical Specialist
For and on behalf of Lloyd's Register Marine Deutschland GmbH (2923)

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



BUNDESAMT FÜR
SCHIFFFAHRT
UND
HYDROGRAPHIE
Notified Body authorised by
BSH 0800-S23/4822:013

Page 2 of 5
Certificate No: LR22308967MB
Issue Date: 31/08/2022
Expiry Date: 09/06/2025

EC Type Examination (Module B) Certificate

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to and agreed with the notified body named on this certificate. The manufacturer should notify LRMD of any modification or changes to the equipment in order to obtain a valid Certificate.

Should the specified regulations or standards be amended during the period of validity of this certificate, the product is to be re-approved prior being placed on the market and on board vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D,E, or F) of ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Lloyd's Register Marine Deutschland
GmbH, Überseeallee 10, D-20457
Hamburg, Germany.
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Page 3 of 5
Certificate No: LR22308967MB
Issue Date: 31/08/2022
Expiry Date: 09/06/2025
Reference: UKITSO/ETS/TA/MH/WP47594078/PRJ11100362685

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR22308967MB

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

This Certificate Supersedes and is an Amendment of Certificate Number 0525-MED-DE-MED 1600002-M3-03

Approval Documentation

MED Risk Assessment Declaration	02 Jul 2020
ISO Certificate identity number No 10309206	28 Nov 2020
Schedule of Accreditation MS Testing	30 Jun 2022
Q10107 T4 MED Assessment of Risk	19 Jan 2019
CDoc-21 EU Declaration of Conformity Ver 20	14 Jun 2020
ENG-000754: Firmware MED Compliance	14 Sep 2015
ENG-000600: T4 Sensors- Certification Control Document ver 6	17 Mar 2022
ENG-000656: Minimum Manual Content T4, Issue 7	11 May 2022

DRAWINGS

SURVITEC T4 Electronic Certified Drawings

ECAD-000143-CD-CERT: T4 Main PCB, issue 12 (4 pages)	25 Mar 2015
ECAD-000143-PL-CERT: T4 Main PCB Parts List, issue 14	15 Sept 2021
ECAD-000143-PCB-CERT: T4 Main PCB issue 11 (8 pages)	27 Sept 2021
ECAD-000144-CD-CERT: T4 Sensor PCB issue 9 (1 page)	26 Feb 2015
ECAD-000144-PL-CERT-T4 Sensor PCB issue 10 (1 page)	25 Mar 2015
ECAD-000144-PCB-CERT: T4 Sensor PCB issue 8 (10 pages)	26 Jan 2015
ECAD-000227-CD-CERT, T4 Sensor PCB Circuit Diagram, Issue 1	21 Jan 2022
ECAD-000227-PL-CERT, T4 Sensor PCB Parts List, Issue 1	21 Jan 2022
ECAD-000227-PCB-CERT, T4 Sensor PCB (10 pages), Issue 1	20 Jan 2022

SURVITEC T4 Mechanical Certified Drawings

MCAD-002035-T4, Rev. 01 T4 Battery Assembly	10 Oct 2014
MCAD-002498, Rev. 01 T4 Front Case	26 Sep 2014
MCAD-002499, Rev. 01 T4 Rear Case	30 Jan 2015
MCAD-002499, Rev. 02 T4 Rear Case	30 Sep 2015
MCAD-002500, Rev. 03 T4 Certification GA	16 Mar 2022
MCAD-002511, Rev. 01 T4 Clip on sensor filter plate	30 Jan 2015
MCAD-002512, Rev. 01 T4 Sensor Filter plate assembly	05 Aug 2014
MCAD-002521, Rev. 02 T4 Instrument serial number label	30 Sep 2015

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Lloyd's Register Marine Deutschland GmbH, Überseeallee 10, D-20457 Hamburg, Deutschland



Page 4 of 5
Certificate No: LR22308967MB
Issue Date: 31/08/2022
Expiry Date: 09/06/2025
Reference: UKITSO/ETS/TA/MH/WP47594078/PRJ11100362685

MCAD-002548, Rev. 01 T4 Sensor insulator	05 Aug 2014
MCAD-004057, Rev. 01 T4 Sensor insulator	14 Sept 2021
MCAD-002553, Rev. 03 T4 Vibrator	31 Jan 2018
MCAD-002554, Rev. 01 T4 Main PCB potting details	13 Mar 2015
MCAD-002563, Rev. 01 T4 Potting Box	02 Sep 2014
MCAD-002879, Rev. 02 T4 LCD Module	07 Dec 2021
MCAD-003072, Rev. 10 T4 Grip Clip	21 Feb 2011
MCAD-003072, Rev. 11 T4 Grip Clip	21 Feb 2011
MCAD-003207, Rev. 01 T4 Clip on aspirator plate	23 Sep 2015
MCAD-003214, Rev. 01 T4 Clip on aspirator plate	23 Sep 2015
MCAD-003217, Rev. 04 INMETRO MED Certification Type 2	14 Jul 2020
MCAD-003218, Rev. 05 T4 Atex/IECex MED Certification label type 1	16 Dec 2020
MCAD-003219, Rev. 04 T4 INMETRO MED Certification Label Type 1	19 Nov 2020
MCAD-003220, Rev. 05 T4 Atex/IECex MED Certification label type 2	18 Nov 2020
MCAD-02522, Rev 3 T4 Certification Label Type 1	28 Oct 2019
MCAD-003837, Rev 2 T4 China Certification Label Type 1	06 May 2020
MCAD-002734, Rev 3 T4 Certification Label Type 2	29 Oct 2019
MCAD-003832, Rev 3 T4 China Certification Label Type 2	11 May 2020
MCAD-004059 Rev 1, RFI Rear Case Shielding	16 Nov 2021
MCAD-004060 Rev 1, RFI Rear Case Shielding	19 Nov 2021

TEST REPORTS & CERTIFICATION

ExTR Report Package DK ULD ExTR15.0003 09	16 May 2022
IECEx ULD 15.0002 Issue 9 : IECEx Certificate of Conformity	16 May 2022
TL15070-ENV Test Report Environmental Compatibility	08 Sept 2015
TL21174A Test Report Marine Type Approval Testing Including EN50270:2015	04 Mar 2022
TL21174B Test Report Marine Type Approval Testing Including EN50270:2015	04 Mar 2022
TL21174C Test Report Marine Type Approval Testing Including EN50270:2015	07 Mar 2022
TL19061B-ENV Including TL15070-ENV Test Report BS EN50104 Compatibility	15 Jul 2019
TL19061B-ENV Including TL15070-ENV Test Report BS 60079-29-1 Compatibility	15 Jul 2019
TL19061B-EMC Including TL15070-EMC Test Report EMC	04 Jul 2019

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Lloyd's Register Marine Deutschland GmbH, Überseeallee 10, D-20457 Hamburg, Deutschland

Conditions of Certification

1. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place.
2. Each item, batch or lot of the equipment is to be issued with a “Declaration of Conformity” and have the “Mark of Conformity” affixed after a conformity assessment module is in place.
3. The manufacturer shall keep a copy of the EC type-examination certificate, its annexes and additions together with the technical documentation at the disposal of the national authorities for at least 10 years after the wheel mark has been affixed on the last product manufactured and in no case for a period shorter than the expected life of the marine equipment concerned.
4. The following Standards are not applicable for this type of equipment and therefore not included in this certificate:
EN 60079-15: 2010
EN 60079-26: 2015
EN60079-10-1:2015
IEC60092-504:2016
IEC60533:2015

Place of Production

Crowcon Detection Instruments Ltd.,
172 Brook Drive
Milton Park
Abingdon
Oxfordshire
OX14 4SD
United Kingdom (UK)



Matt Higgins
Senior Specialist
Engineering Systems
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Marine Deutschland
LRMD EC Distinguishing No. 2923

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Lloyd's Register Marine Deutschland GmbH, Überseeallee 10, D-20457 Hamburg, Deutschland