

EC Type Examination (Module B) Certificate

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No.1025), as amended, 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, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer	Crowcon Detection Instruments Ltd
Address	172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD United Kingdom
Reference	Regulation (EU) 2020/1170
Regulation Item (No. & Item Designation)	MED/3.30 Portable Oxygen Analysis And Gas Detection Equipment
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 60079-29-1: 2016, EN 60079-0: 2012 Inc A11 :2013, EN60079-1: 2014, EN 60079-11: 2012.
Trade Name	T4

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 This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.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 is issued under the authority of the MCA. 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 LRV 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 Verification Limited (Reg. no. 4929226) is a limited company registered in England and Wales. Registered office: 71 Fenchurch Street, London, EC3M 4BS, UK. A member of Lloyd's Register group.

Matt Higgins

Electrical Specialist to Lloyd's Register
Verification Ltd
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.

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2011430MB-02

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 is an Amendment of Certificate No. LR2011430MB

APPROVAL DOCUMENTATION

MED Risk Assessment Declaration	2 Jul 2020
ISO 9001 2015 certificate of approval, Number 10086516	28 May 2018
Schedule of Accreditation MS Testing	20 Nov 2018
Q10107 T4 MED Assessment of Risk	19 Jan 2019
CDoC-21 EU Declaration of Conformity Ver 9	9 Jul 2019
ENG-000754: Firmware MED Compliance	14 Sep 2015
ENG-000600: T4 Sensors- Certification Control Document	21 Dec 2017
ENG-000656: Minimum Manual Content T4	17 Apr 2018

DRAWINGS

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 issue 13-certified parts list (1 page)	28 Jul 2017
ECAD-000144-CD-CERT: T4 Sensor PCB issue 9(1 page)	26 Feb 2015
ECAD-000144-PCB-CERT: T4 Sensor PCB issue 8(10 pages)	26 Jan 2015
ECAD-000143-PCB-CERT: T4 Main PCB issue 10(8 pages)	14 Jan 2015
ECAD-000144-PL-T4 Sensor PCB issue 10(1 page)	25 Mar 2015

T4 Mechanical Certified Drawings

ECAD-000143-PL-CERT	28 Jul 2017
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. 01 T4 Certification GA	10 Oct 2014
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
MCAD-002548, Rev. 01 T4 Sensor insulator	05 Aug 2014
MCAD-002553, Rev. 03 T4 Vibrator	31 Jan 2018

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2011430MB-02

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. 01 T4 LCD Module	19 Jan 2015
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-002926, Rev. 01 T4 Cradle charger certification assembly	17 Feb 2015
MCAD-002997, Rev. 01 T4 Cradle charger certification label	17 Feb 2015
MCAD-002998, Rev. 01 T4 INMETRO cradle charger cert label	01 Feb 2011
MCAD-002999, Rev. 01 T4 Cradle power and communications cert. label	30 Jan 2015
MCAD-003001, Rev. 01 T4 Inmetro cradle power and communications cert label	30 Jan 2015
MCAD-003003, Rev. 01 T4 Cradle power and communications	17 Feb 2015
MCAD-003217, Rev. 02 T4 Certification Label Type 2	15 May 2018
MCAD-003218, Rev. 02 T4 Atex/IECex MED Certification label type 1	20 Apr 2018
MCAD-003219, Rev. 02 T4 Inmetro MED Certification Label Type 1	15 May 2018
MCAD-003220, Rev. 02 T4 Atex/IECex MED Certification label type 2	20 Apr 2018
MCAD-003221, Rev. 02 T4 UL MED Certification Label Type 1	15 May 2018
MCAD-003222, Rev. 02 T4 UL MED Certification Label Type 2	15 May 2018

TEST REPORTS & CERTIFICATION

TL19061C- EMC	15 Jul 2019
4788284719.1.1: DEMKO 15ATEX1411 Rev 2	25 Apr 2018
ExTR Package DK ULD ExTR15.0003/02	25 Apr 2018
IECEx ULD 15.0002 Issue 2: IECEx Certificate of Conformity	25 Apr 2018
TL15070-EMC Test Report	25 Aug 2015
TL15070-ENV Test Report Environmental Compatibility	08 Sept 2015
TL15070-ENV BS EN 50104 Compatibility Test Report	11 Sep 2015
TL15070-ENV BS EN 60079-29-1 Compatibility Test Report	11 Sep 2015

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2011430MB-02

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 following Standards are not applicable for this certificate;
EN 60079-15: 2010
EN 60079-26: 2007

PLACE OF PRODUCTION

Crowcon Detection Instruments Ltd
172 Brook Drive
Milton Park
Abingdon
OX14 4SD



Matt Higgins
Electrical Specialist
Engineering Systems
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038