



EC TYPE EXAMINATION (MODULE B) CERTIFICATE

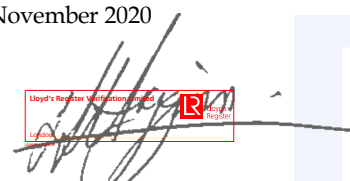
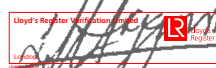
This is to certify that:

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), did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Fire protection equipment requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission Implementing Regulation (EU) 2018/773 indicating design, construction and performance requirements and testing standards for marine equipment, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer (Applicant)	Crowcon Detection Instruments Ltd
Address	172 Brook Drive Milton Park Abingdon Oxon OX14 4SD
Reference	Regulation 2018/773
Regulation Item	MED/3.30 PORTABLE OXYGEN ANALYSIS & GAS DETECTION EQUIPMENT
Product Type	T4
Product Description	PORTABLE OXYGEN ANALYSIS AND GAS DETECTION EQUIPMENT
Specified Standard	EN 60945:2002 Including IEC 60945 Corrigendum 1: 2008, IEC 60092-504: 2001 Including IEC 60092-504 Corrigendum 1: 2011, IEC 60533: 1999. Cat 2: (Explosive Gas Atmospheres) EN 50104: 2010, EN 60079-29-1: 2007, EN 60079-0: 2012 Inc A11 :2013, EN60079-1: 2014, EN 60079-10-1: 2015, EN 60079-11: 2012.

The attached Design Appraisal Document (schedule) forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue	23 January 2019	Expiry date	4 November 2020
Certificate No.	MED 1500019/M2	Signed	 
Sheet No.	1 of 4	Name	M. J. Higgins For and on behalf of Lloyd's Register Verification LRV EC Distinguishing No. 0038

Note:

This certificate is issued under the authority of the MCA.

This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.

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Lloyd's
Register

Lloyd's Register Verification Limited

71 Fenchurch Street, London, EC3M 4BS

Telephone 020 7423 2416 Fax 020 7423 2053

Email med@lr.org

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Document number MED 1500019/M2
Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 14 February 2019	Quote this reference on all future communications UKITSO/TS/ETS/MJH/WP34562755
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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1500019/M2

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 Certificate is an amendment to MED 1500019/M1

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

APPROVAL DOCUMENTATION

ISO 9001 2015 certificate of approval, Number 10086516	28 May 2018
Q10107 T4 MED Assessment of Risk	19 Jan 2019

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)	6 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
ENG-000754: Firmware MED Compliance	14 Sep. 2015
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

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



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MCAD-002548, Rev. 01 T4 Sensor insulator	05 Aug 2014
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. 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

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
EC Doc T4 Declaration of Conformity 2015-001-Version 007	24 Jul 2015
TL15070-EMC Test Report	25 Aug 2015
TL15070-ENV Test Report Environmental Compatibility	08 Aug 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



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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
Oxon
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