

## EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that :

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), specified as a "notified body" under the terms of The Merchant Shipping (Marine Equipment) Regulations S.I. 1999 No. 1957, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Commission Directives 98/85/EC, 2001/53/EC, 2002/75/EC, 2002/84/EC, 2008/67/EC, 2009/26/EC, 2010/68/EU, 2011/75/EU, 2012/32/EU, 2013/52/EU and 2014/93/EU subject to any conditions in the Design Appraisal Document attached hereto.

<b>Manufacturer</b>	Crowcon Detection Instruments Ltd
<b>Address</b>	172 Brook Drive Milton Park Abingdon Oxon OX14 4SD
<b>Annex A1 Item</b>	<b>A.1/3.30 PORTABLE OXYGEN ANALYSIS &amp; GAS DETECTION EQUIPMENT</b>
<b>Product Type</b>	<b>T4</b>
<b>Product Description</b>	PORTABLE OXYGEN ANALYSIS AND GAS DETECTION EQUIPMENT
<b>Specified Standard</b>	EN 60945:2002 Including IEC 60945 Corrigendum 1: 2008, IEC 60092-504: 2001 Including IEC 60092-504 Corrigendum 1: 2011, IEC 60533: 1999. <b>Cat 2: (Explosive Gas Atmospheres)</b> EN 50104: 2010, EN 60079-29-1: 2007, EN 60079-0: 2012, EN60079-1: 2007 including IEC 60079-1 Corrigendum 1:2008, EN 60079-10-1: 2009, 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 5 November 2015 Expiry date 4 November 2020

Certificate No. MED 1500019

Signed

*P.A. Huntley-Hawkins*



Sheet No 1 of 4

Name

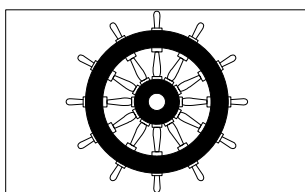
Lloyd's Register Verification Ltd  
P.A. Huntley-Hawkins

LR427.2013.12

For and on behalf of Lloyd's Register Verification  
LRV EC Distinguishing No. 0038

Note:

**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.**



Subject to compliance with the conditions in the attached Design Appraisal Document (schedule), which forms part of this certificate, and those of Articles 10.1(i) and 11 of the Directive, the Manufacturer is allowed to affix the "Mark of Conformity" to the Product described herein.

yy Last two digits of year mark affixed.

**This certificate is issued under the authority of the MCA.**

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 subsidiary of Lloyd's Register Group Limited.

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## Lloyd's Register Verification Limited

Lloyd's Register EMEA  
Lloyd's Register Global Technology Centre, Southampton  
Boldrewood Innovation Campus, Burgess Road,  
Southampton, SO16 7QF

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Document number MED 1500019
Issue number 1

### DESIGN APPRAISAL DOCUMENT

Date 5 November 2015	Quote this reference on all future communications MTES/ETS/TB/ WP22730987
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#### ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1500019

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.

#### APPROVAL DOCUMENTATION

T4 MED Application Checklist  
Request for marine service  
T4 User & Operator Manual Issue 2

16 July 2015  
Oct 2015

#### DRAWINGS

##### T4 Electronic Certified Drawings

ECAD-000143-CD-CERT: T4 Main PCB, issue 12(4 pages)	25 March 2015
ECAD-000143-PL-CERT: T4 Main PCB issue 12-certified parts list (1 page)	25 March 2015
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 March 2015
ENG-000754: Firmware MED Compliance	14 Sep. 2015
ENG-000754: Firmware MED Compliance	14 Sep. 2015

##### 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. 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. 02 T4 Vibrator	30 Sep 2015
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



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Date	5 November 2015	Quote this reference on all future communications	MTES/ETS/TB/ WP22730987
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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-003218, Rev. 01 T4 Atex/IECex MED Certification label type 1	23 Sep 2015
MCAD-003220, Rev. 01 T4 Atex/IECex MED Certification label type 2	23 Sep 2015

#### TEST REPORTS & CERTIFICATION

ACF-4787048649: 15ATEX1411 DEMKO 15 ATEX 1411 REV.1 Cert	22 Oct 2015
AICP-4787048649: 15ATEX1411 IECEx Test Report Cover	22 Oct 2015
AIEA-4787048649: 15ATEX1411 IECEx Test Report Addendum	22 Oct 2015
AITR-4786386470- IEC60079-0 Ed.6: IECEx Test Report	05 May 2015
AIIT-4786386470- IEC60079-11 Ed.6: IECEx Test Report	05 May 2015
AIND-4787048649-15ATEX1411 IEC60079-0 ED.6: IECEx Test Report of National Differences	22 Oct 2015
AIEA-4787048649-15ATEX1411 IEC60079-1 ED.6: IECEx Test Report Addendum	22 Oct 2015
AIND-4787048649-15ATEX1411 IEC60079-11ED.6: IECEx Test Report of National Differences	22 Oct 2015
IECEX ULD 15.0002X Issue 1: IECEx Certificate of Conformity	22 Oct 2015
EC Doc T4 Declaration of Conformity 2015-001-Version 002	24 July 2015
ISO 9001 2008 certificate of approval	01 June 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

#### 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



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Date 5 November 2015	Quote this reference on all future communications MTES/ETS/TB/ WP22730987
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### PLACE OF PRODUCTION

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



LR427/2013.12  
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For and on behalf of Lloyd's Register Verification  
**LRV EC Distinguishing No. 0038**