



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 Oxfordshire, OX14 4SD United Kingdom (UK)
Reference	Regulation (EU) 2018/773
Regulation Item (No & Item designation)	MED/3.30 PORTABLE OXYGEN ANALYSIS & GAS DETECTION EQUIPMENT
Product Type	GAS-PRO/GAS-PRO TK
Product Description	MULTI-GAS MONITOR
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 60079-0: 2012 Inc. A11 :2013, EN60079-1: 2014, EN 60079-10-1: 2015, EN 60079-11: 2012, EN 60079-29-1: 2016

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 2 September 2019 Expiry date 9 June 2020

Certificate No. MED 1500009/M5 Signed



Sheet No. 1 of 5 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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Issue number 1

DESIGN APPRAISAL DOCUMENT

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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1500009/M5

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 amendments of Certificate No. MED 1500009/M4

APPROVAL DOCUMENTATION

CDoc-9 Ver 11 EU Declaration of Conformity Gas-Pro, Gas Pro TK, Survitec Gas Pro, Survitec Gas Pro TK 9 Jul 2019

ENG-000130 Issue 5 Minimum Manual Content Gas-Pro INMETRO - Certification Control Document 10 May 2018

Q10105 Gas-Pro/Gas-Pro TK MED Assessment of Risk 19 Jan 2019

ENG-000028 Issue 7 Minimum Manual Content Gas-Pro-Certification Control Document 23 Nov 2017

ENG-000024 Issue 4 Gas-Pro Sensors-Certification Control Document 23 Nov 2017

DRAWINGS

GAS-PRO/GAS-PRO TK Electronic Certified Drawings

1004-1027-CD-CERT: Gas-Pro Display	03 Mar 2011
1004-1027-PCB-CERT: Gas-Pro Display	16 Mar 2011
1004-1027-PL-CERT: Gas-Pro Display Certified Parts List	03 Mar 2011
1004-1042-01-CD-CERT: Gas-Pro B3 Main PCB	31 Mar 2011
1004-1042-01-PL-CERT: Gas-Pro B3 Main PCB	15 Apr 2011
1004-1042-CD-CERT: Gas-Pro B3 Main PCB	18 Apr 2011
1004-1042-PCB-CERT: Gas-Pro B3 Main PCB	01 Mar 2011
1004-1042-PL-CERT: Gas-Pro B3 Main PCB Parts List	13 Apr 2015
1004-1047-01-CD-CERT: Gas-Pro B2 Main PCB	31 Mar 2011
1004-1047-01-PL-CERT: Gas-Pro B2 Main PCB Parts List	17 Apr 2011
1004-1047-CD-CERT: Gas-Pro B2 Main PCB	10 Mar 2011
1004-1047-PCB-CERT: Gas-Pro B2 Main PCB	10 Mar 2011
1047-1047-PL-CERT: Gas-Pro B2 Main PCB Parts List	15 Apr 2015
1004-1080- CD-CERT: Gas Pro B1 Main PCB	16 Dec 2015
1004-1080- PCB-CERT: Gas Pro B1 PCB	17 Dec 2011



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1004-1080-CD-CERT Issue 2: Gas Pro B1 Main PCB (Circuit Diagram)	16 Dec 2015
1004-1080-PCB-CERT Issue 2: Gas Pro B1 Main PCB (PCB Layout)	17 Dec 2015
1004-1080-CD-CERT: Gas-Pro B1 Main PCB	10 Mar 2011
1004-1080-PCB-CERT: Gas-Pro B1 Main PCB	10 Mar 2011
1004-1080-PL-CERT: Gas-Pro B1 Main PCB Parts List	17 Apr 2015
ECAD-000106-01-CD-CERT: Gas-Pro B4 Main PCB Version 4b	29 Sept 2013
ECAD-000106-01-PL-CERT: Gas-Pro Main PCB Version 4b Parts List	30 Apr 2015
ECAD-000106-CD-CERT: Gas-Pro B4 Main PCB Version 4	26 Sept 2013
ECAD-000106-PCB-CERT: Gas-Pro B4 Main PCB Version 4	19 Nov 2013
ECAD-000106-PL-CERT: Gas-Pro B4 Main PCB Version 4	30 Apr 2015

GAS-PRO/GAS-PRO TK Mechanical Certified Drawings

1004-1005: Front Case Moulding	12 Nov 2013
1004-1006: Rear Case Moulding Rev 4	23 Nov 2017
1004-1008: Pumped Flow Plate Assembly	08 Apr 2010
1004-1009: Pumped Flow Plate	08 Apr 2010
1004-1014: Battery Tray	15 Jun 2010
1004-1016: B2 Potting Box	22 Oct 2010
1004-1022: Non Pumped Flow Plate Assembly	08 Apr 2010
1004-1023: Non Pumped Flow Plate	15 Jun 2010
1004-1049: Gas-Pro-Certification GA MCAD Issue 5	25 Apr 2016
1004-1075: Gas Pro Battery Assembly Issue 2	26 Aug 2010
1004-1076 Gas Pro ATEX Certification Label Issue 4	07 July 2010
1004-1077: B3 Potting Box	07 July 2010
1004-1086: Display Board PCB Assembly	15 Jun 2010
1004-1089: Display Board PCB Assembly Wireless	04 Aug 2010
1004-1090: Display to Main Board Connection	10 Nov 2010
1004-1091: B3 and B4 Main Board Potting Detail	18 Sept 2010
1004-1093: B1 Potting Box	09 Feb 2011
1004-1094: B2 Main Board Potting Detail	21 Feb 2011
1004-1095: B1 Main Board Potting Detail	21 Feb 2011



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1004-1096: Charging Cables	09 Apr 2010
1004-1098: Charger Certification Label	01 Feb 2011
1004-1099: B3 Sensor Insulator	20 Jan 2011
1004-1101: B2 Sensor Insulator	23 Feb 2011
1004-1266: B1 Sensor Insulator	23 Feb 2011
1004-2501: Comms Certification Label	01 Feb 2011
1004-2502: Power & Comms Certification Label	01 Feb 2011
1004-2503: Car Charger Certification Label	01 Feb 2011
1004-6000: Battery Connection	22 Feb 2011
1004-6003: Pump Cable Restraint	22 Feb 2011
1004-6005: KNF Pump-PJ25004-NMS020	23 Feb 2011
1004-6010: Flow Plate Assembly Two	08 Apr 2010
1004-7001: Standard Parts	22 Feb 2011
1004-7002: Connecting Cable- Main Board to Display Board	22 Feb 2011
1004-7003: Piezo Transducer	23 Feb 2011
3072: Grip Clip	21 Feb 2011
CAB HARM MAIN_Issue 4	12 Aug 2010
GA Harmony Conn_Issue 2	05 Jan 2011
GASPRO LCD and Backlight	14 Mar 2011
MCAD-003241 Issue : IR Sensor Shield	13 Jan 2016
MCAD-003242 Issue 1: Front Case RFI Shielding	13 Jan 2016
MCAD-003243 Issue 1: Rear Case RFI Shielding	13 Jan 2016
MCAD-000713: Dust Filter Plate	05 Sept 2013
MCAD-000743: Dust Filter Flow Plate Assy	05 Sept 2013
MCAD-002434: B4 Sensor Insulator	19 Sept 2013
MCAD-003205: MED Atex/IECEX Certification Label Rev 2	07 July 2010
MCAD-003224: MED Inmetro Certification Label Rev 2	21 Dec 2017
MCAD-003235: MED UL Certification Label Rev 2	21 Dec 2017

TEST REPORTS & CERTIFICATION

ACF-3371468.935278 DEMKO 11 ATEX 1031772X Rev. 6	2017/12/04
DK ULD ExTR 11.0005 06 DEMKO A/S	2017/12/04



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IECEX ULD 11.0004X Issue 7: IECEX Certificate of Conformity	2017/12/04
TL19061C- EMC Including TL16038-EMC Gas-Pro IR	15 Jul 2019
TL16038 Crowcon Gas Pro EMC Report Issue 2	04 Apr 2016
TL14065A-EMC Test Report	03 Dec 2014
TL14065A-ENV Test Report	22 Dec 2014
TL14065B-ENV BS EN 50104 Compatibility Test Report	08 Jan 2015
TL14065C-ENV Test Report BS 60079-29-1 Compatibility	09 Jan 2015
TL14065B-EMC BS EN 50270 & BS EN 61000-6-3 +A1 Test Report	03 Dec 2014

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