Maritime & Coastguard Agency

Approved Body authorised by the MCA

Certificate No: LR2561647UKMB-02
Issue Date: 23/05/2025
Expiry Date: 09/06/2030

UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

Lloyd's Register Marine Limited (LRM Ltd) 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 the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, subject to any conditions in the schedule attached hereto.

Manufacturer	**Crowcon Detection Instruments Ltd**
Address	172 Brook Drive, Milton Park, Abingdon, OX14 4SD, United Kingdom
Reference	MSN1874 Amendment 10
Regulation Item (No. & Item Designation)	UK/3.30b Portable oxygen analysis 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
Trade Name	GAS-PRO/GAS-PRO TK
Specified Standard	EN 60945:2002 Including IEC 60945 Corrigendum 1: 2008, Cat 2: (Explosive Gas Atmospheres) EN 50104 :2019, incl. EN 50104:2019/A1:2023, EN IEC 60079-0:2018, incl. AC:2020, EN 60079-1:2014, incl.AC:2018-09, EN 60079-11:2012 and EN 60079-29-1:2016 incl. A1:2022 and A11:2022.

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 This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Matt Higgins

Electrical & Control - Senior Specialist
For and on behalf of Lloyd's Register Marine Ltd. (8512)

Lloyd's Register Marine Limited (Reg. no. 13281335) 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.

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Maritime & Coastguard Agency

Approved Body authorised by the MCA

Certificate No: LR2561647UKMB-02
Issue Date: 13/05/2025
Expiry Date: 09/06/2030

UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

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 approved body named on this certificate.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

The "UK 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 Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an Approved Body.

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ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2561647UKMB-02

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and the Merchant Shipping (Marine Equipment) Regulations 2016, as amended for the UK Type Examination of marine equipment for use on UK ships

This Design Appraisal Document forms part of the Certificate. LR2561647UKMB-02

This Certificate is an Amendment of Certificate Number LR2561647UKMB

APPROVAL/EXAMINED DOCUMENTATION

CDoC-9 Ver 11 EU Declaration of Conformity	26 Apr 2022
ISO Certificate identity number No 10309206	28 Nov 2020
ENG-000130 Issue 7 Minimum Manual Content Gas-Pro INMETRO	05 Mar 2022
MED Risk Assessment Declaration	25/04/2022
Q10105 Gas-Pro/Gas-Pro TK MED Assessment of Risk	19 Jan 2019
ENG-000028 Issue 10 Minimum Manual Content Gas-Pro-Certification Control Document	25 Feb 2021
ENG-000024 Issue 5 Gas-Pro Sensors-Certification Control Document	25 Feb 2021
Schedule of Accreditation MS Testing	22 Jun 2022

DRAWINGS

GAS-PRO, GAS-PRO TK Electronic Certified Drawings

1004-1027-CD-CERT: Gas-Pro Display ver 8	16 Mar 2011
1004-1027-PCB-CERT: Gas-Pro Display ver 8	16 Mar 2011
1004-1027-PL-CERT: Gas-Pro Display Certified Parts List ver 8	31 May 2011
1004-1042-01-CD-CERT: Gas-Pro B3 Main PCB ver 1	18 Apr 2011
1004-1042-01-PL-CERT: Gas-Pro B3 Main PCB ver 2	15 Apr 2015
1004-1042-01-PL-CERT: Gas-Pro B3 Main PCB ver 5	26 Feb 2021
1004-1042-CD-CERT: Gas-Pro B3 Main PCB ver 6	18 Apr 2011
1004-1042-CD-CERT: Gas-Pro B3 Main PCB ver 9	30 Nov 2021
1004-1042-PCB-CERT: Gas-Pro B3 Main PCB ver6	01 Mar 2011
1004-1042-PL-CERT: Gas-Pro B3 Main PCB Parts List ver 8	13 Apr 2015
1004-1042-PL-CERT: Gas-Pro B3 Main PCB Parts List ver 11	25 Feb 2021
1004-1047-01-CD-CERT: Gas-Pro B2 Main PCB ver 1	31 Mar 2011
1004-1047-01-CD-CERT: Gas-Pro B2 Main PCB ver 4	30 Nov 2021
1004-1047-01-PL-CERT: Gas-Pro B2 Main PCB Parts List ver 2	17 Apr 2011
1004-1047-01-PL-CERT: Gas-Pro B2 Main PCB Parts List ver 5	25 Feb 2021
1004-1047-CD-CERT: Gas-Pro B2 Main PCB ver 1	10 Mar 2011
1004-1047-CD-CERT: Gas-Pro B2 Main PCB ver 4	30 Nov 2021
1004-1047-PCB-CERT: Gas-Pro B2 Main PCB ver 1	10 Mar 2011
1047-1047-PL-CERT: Gas-Pro B2 Main PCB Parts List ver 2	15 Apr 2015
1047-1047-PL-CERT: Gas-Pro B2 Main PCB Parts List ver 5	24 Feb 2021
1004-1080-CD-CERT Issue 2: Gas Pro B1 Main PCB (Circuit Diagram)	16 Dec 2015
1004-1080-CD-CERT: Gas Pro B1 Main PCB (Circuit Diagram) ver 5	29 Nov 2021
1004-1080-PCB-CERT Issue 2: Gas Pro B1 Main PCB (PCB Layout)	17 Dec 2015
1004-1080-PL-CERT: Gas-Pro B1 Main PCB Parts List ver 2	17 Apr 2015
1004-1080-PL-CERT: Gas-Pro B1 Main PCB Parts List ver 5	22 Feb 2021

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ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2561647UKMB-02

ECAD-000106-01-CD-CERT: Gas-Pro B4 Main PCB Version 4b rev 1	26 Sept 2013
ECAD-000106-01-CD-CERT: Gas-Pro B4 Main PCB Version 4b rev 4	01 Dec 2021
ECAD-000106-01-PL-CERT: Gas-Pro Main PCB Version 4b Parts List rev 2	30 Apr2015
ECAD-000106-01-PL-CERT: Gas-Pro Main PCB Version 4b Parts List rev 5	26 Feb 2021
ECAD-000106-CD-CERT: Gas-Pro B4 Main PCB ver1	26 Sept 2013
ECAD-000106-CD-CERT Issue 2: Gas-Pro B4 Main PCB ver 4	05 Feb 2021
ECAD-000106-PCB-CERT: Gas-Pro B4 Main PCB ver 2	18 Nov 2013
ECAD-000106-PL-CERT: Gas-Pro B4 Main PCB ver 2	30 Apr 2015
ECAD-000106-PL-CERT: Gas-Pro B4 Main PCB ver 4	26 Feb 2021

GAS-PRO, GAS-PRO TK Mechanical Certified Drawings

1004-1005: Front Case Moulding rev 2	12 Nov 2013
1004-1006: Rear Case Moulding Rev 4	23 Nov 2017
1004-1008: Pumped Flow Plate Assembly rev 1	08 Apr 2010
1004-1009: Pumped Flow Plate rev 1	08 Apr 2010
1004-1014: Battery Tray rev 1	15 Jun 2010
1004-1016: B2 Potting Box rev 1	22 Oct 2010
1004-1022: Non Pumped Flow Plate Assembly rev 1	08 Apr 2010
1004-1023: Non Pumped Flow Plate rev 1	02 May 2025
1004-1049: Gas-Pro-Certification GA MCAD Issue 6	25 Apr 2016
1004-1075: Gas Pro Battery Assembly Issue 4	26 Aug 2010
1004-1076 Gas Pro ATEX Certification Label Issue 6	07 Jul 2010
1004-1077: B3 Potting Box rev 1	15 Jun 2010
1004-1086: Display Board PCB Assembly rev 1	04 Aug 2010
1004-1090: Display to Main Board Connection rev 1	10 Nov 2010
1004-1091: B3 and B4 Main Board Potting Detail rev 2	18 Sept 2013
1004-1093: B1 Potting Box rev 1	09 Feb 2011
1004-1094: B2 Main Board Potting Detail rev 1	21 Feb 2011
1004-1095: B1 Main Board Potting Detail rev 1	21 Feb 2011
1004-1099: B3 Sensor Insulator rev 1	20 Jan 2011
1004-1101: B2 Sensor Insulator rev 1	23 Feb 2011
1004-1266: B1 Sensor Insulator rev 1	23 Feb 2011
1004-6000: Battery Connection rev 1	22 Feb 2011
1004-6003: Pump Cable Restraint rev 1	22 Feb 2011
1004-6005: KNF Pump-PJ25004-NMS020 rev 1	23 Feb 2011
1004-6010: Flow Plate Assembly Two rev 1	08 Apr 2010
1004-6011: Flow Plate Two rev 1	08 Apr 2010
1004-7001: Vibrator rev 1	22 Feb 2011
1004-7002: Connecting Cable- Main Board to Display Board rev 1	22 Feb 2011
1004-7003: Piezo Transducer	23 Feb 2011
3072: Grip Clip rev 10	21 Feb 2011
3072: Grip Clip rev 11	21 Feb 2011
MCAD-003241 Issue : IR Sensor Shield rev 2	04 Nov 2024
MCAD-003242 Issue 1: Front Case RFI Shielding rev 1	13 Jan 2016
MCAD-003243 Issue 1: Rear Case RFI Shielding rev 1	13 Jan 2016
MCAD-003401-Gas-Pro-Rear-Case-Orange-RFI-Shielding Rev 01	07 Mar 2016
MCAD-003408-Gas-Pro-Front-Case-Orange-RFI-Shielding Rev 01	07 Mar 2016

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ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2561647UKMB-02

MCAD-000743: Dust Filter Flow Plate Assy rev 1	05 Sept 2013
MCAD-002434: B4 Sensor Insulator rev 1	19 Sept 2013
MCAD-003205: MED Atex/IECEx Certification Label Rev 5	07 July 2010
MCAD-003224: MED Inmetro Certification Label Rev 4	07 July 2020
MCAD-003840 GasPro ATEX Certification Label (China) rev 1	18 Mar 2020
MCAD-003844 GasPro ATEX Certification Label (China) rev 3	24 Mar 2020
MCAD-003849 GasPro MED ATEX/IECEx Certification Label rev 4	24 Mar 2020
MCAD-003850 GasPro ATEX Certification Label rev 3	24 Mar 2020
MCAD-004154 GasPro UK MCA MED Certification Label rev 1	24 Mar 2020

TEST REPORTS & CERTIFICATION

ExTR Report Package DK ULD ExTR11.0005 10	2021/12/10
IECEx ULD 11.0004X Issue 11: IECEx Certificate of Conformity	2021/12/10
TL19061C EMC Including TL16038	15 Jul 2019
TL19061A-EMC including TL14065A-EMC	03 July 2019
L19061A-ENV including TL14065C-ENV	15 July 2019
TL19061A-ENV including TL14065B-ENV	15 July 2019
TL19061C-ENV BS 60079-29-1 Compatibility	15 July 2019
TL19061C-ENV BS EN50104 Compatibility	15 July 2019
TL16038- EMC Crowcon Gas Pro EMC Report Issue 2	04 Apr 2016

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), as applicable. The UK Conformity Mark cannot be affixed to the product until a conformity assessment module is in place.
2. Each item, batch or lot of the subject equipment is to be issued with a “UK Declaration of Conformity” and have the “UK Conformity Mark” affixed after a conformity assessment module is in place.
3. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products are fully compliant with the relevant statutory regulations as applicable and are designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.
4. The following Standards are not applicable for this certificate:

   EN 60079-15: 2010

   EN 60079-26: 2015

   EN60079-10-1:2015

   IEC60092-504:2016

   IEC60533:2015
5. Should a change of Place of Production from that stated below be required i.e., where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained.
6. The manufacturer must keep a copy of the UK type-examination certificate, its annexes, and additions together with the technical documentation at the disposal of the national authorities for a period of at least 10 years after the UK Conformity Mark has been

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ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2561647UKMB

affixed on the last product manufactured and, in no case for a period shorter than the expected life of the marine equipment concerned.

PLACE OF PRODUCTION

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



Matt Higgins
Electrical Specialist
Engineering Systems
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Marine Ltd.
(LRM Ltd) - UK Approved Body 8512

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