



EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00006S4

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Fixed hydrocarbon gas detection system

with type designation(s)
MGS-1000

Issued to

Crowcon Detection Instruments (Beijing) Ltd.
Beijing, China

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2022/1157,
item No. MED/3.65. SOLAS 74 as amended, Regulation II-2/4 and IMO FSS Code 16 and IMO MSC.1/Circ.1370,
Circular MSC.1/Circ.1527.

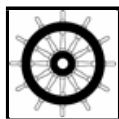
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-07-09**.

Issued at **Hamburg** on **2023-07-10**

DNV local unit:
Dalian NB & CMC

Approval Engineer:
Dariusz Lesniewski



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
Head of Notified Body

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

MGS-1000 Fixed Hydrocarbon Gas Detection System

System main components/Main specification:

GC-100 (incl. HMI)	gas detection and alarm cabinet
GC-200	gas detection and control cabinet
SR-200	gas detection rotating sampling cabinet
SC-100/200/300	gas detection continuous sampling cabinets
Flame arrestors	BS&B 931-B or other suitable ²⁾
Beacons	MW BBJ81-R ¹⁾ or other suitable ²⁾
Infrared gas detectors	¹⁾ Sensitron SMART S-MS MED infrared sensor or other suitable and MED-certified ²⁾ ¹⁾ Gastron GIR-3000 or other suitable and MED certified ²⁾
Pelistor gas detector	¹⁾ Sensitron SMART S-MS MED catalytic sensor or other suitable and MED-certified ²⁾
Repeater alarm units	¹⁾ Beijer X2-Pro7-B2 or other suitable and MED-certified ²⁾

¹⁾not scope of this certification

²⁾scope of a separate verification

System power supply:	220V / 60Hz
Com. interface to IAS:	Modbus link RS485 (dual)
Com. interface to VDR:	Modbus link RS485
Potential free contacts:	for 60% LEL and 30% LEL
Software versions:	V1.00 for MGS-1000 V1.00 for GC-100 PLC V1.00 for GC-200 PLC V1.00 for SR-100 PLC V1.00 for HMI V1.00 for Repeater

DNV Location Classes:

Temperature: C | Humidity: B | Vibration: A | EMC: A | Enclosure: B

Application/Limitation

For components marked with the notes ¹⁾, ²⁾ applicable certificates to be considered (e. g. MED, ATEX)

Type Examination documentation

Tests carried out

- IMO MSC.1/Circ.1370,
- EN IEC 60079-0:2018 incl. AC:2020,
- EN 60079-29-1:2016,
- IEC 60092-504:2016,
- IEC 60533:2015.

Marking of product

- manufacturer name
- product name / system components names
- Instruments Serial Number