

TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB000094S

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

This is to certify:

that the **Water level detectors**

with type designation(s)
VEGABAR (*)82(*)..., (*)86(*)...,

issued to

VEGA Grieshaber KG
Schiltach, Germany

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

Regulation (EU) 2024/1975,

item No. MED/8.1. SOLAS 74 as amended, Regulation II-1/22-1, II-1/25, II-1/25-1 & XII/12, IMO Res. MSC.188(79), IMO Res. MSC.302(87), IMO Res. A.1021(26) and IMO MSC.1/Circ.1572, Rev 1.

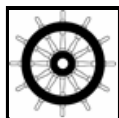
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-12-17**.

Issued at **Hamburg** on **2024-12-18**

DNV local unit:
Augsburg

Approval Engineer:
Dariusz Lesniewski



Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 USD 300 000.

Product description

Sensors for flooding detection system in watertight spaces on passenger ships as required by the IMO MSC.1/Circ.1291.

VEGABAR (*)82(*).a b d f g h i j k l m n o p q

VEGABAR (*)86(*).a b c d e f g h i k l m n o p q

(*) 1- or 2-digit(s) alphanumeric code for customer specific labelling

a	Scope: A, I, F, C or others
b	Approval: M, N, O, P, Q
c	for 86: Version / Process temperature: B Suspension cable FEP / -20...100°C, C Suspension cable PUR / -20...80°C, D Connection tube 316L / -20...80°C up to 0,5 m
d	Process fitting / Material: 2-digit alphanumeric code for TRI- CLAMP, DN or ASME industry type flange with pressure ratings and any complying with an international or national standard
e	for 86: Transmitter options: 1-digit alphanumeric code for versions: X without, P with PE plastic coating, G Thread G½-G¼, N Thread 1/2 NPT hole Ø 11mm, K Thread G1", A Transmitter of PVDF full material, V G1½ (DIN 3852-A) PN3, W Impact protection
f	Sealing concept: 1-digit alphanumeric code for Single, Double resp. Form seal
g	Process seal / Process temperature: 1-digit alphanumeric code for FKM, EPDM, FFKM -seal for temperatures -40...150 °C (depending on version)
h	Pressure: A Absolute, G Relative, K Relative / Climate-compensated
i	Measuring range: 1-digit alphanumeric code for pressure range -1...100.0 bar (-100... 10000kPa) or other national standard units (depending on version)
j	Accuracy class: H 0.050%, E 0.1 %, S 0.2%
k	Electronics: A Two-wire 4...20mA/HART® with SIL – Qualification T Slave electronics for electronic differential pressure with SIL-Qualification
l	Supplementary Electronics: X without, Z Additional Current Output
m	Housing: A Aluminum, D Aluminum double chamber, V Stainless steel (precision casting) 316L W Stainless steel double chamber (precision casting)
n	Housing Version/Protection: D, N, M (IP 68, 1bar)
o	Cable Entry/Connection: N, C, A
p	Indicating and adjustment module plicscom: X without display/adjustment module A with display/adjustment module PLICSCOM F without display/adjustment module; lid with inspection window B laterally mounted; with display/adjustment module PLICSCOM K with display/adjustment module PLICSCOM; with Bluetooth; magnetic pen operation L laterally mounted; with display/adjustment module PLICSCOM; with Bluetooth; magnetic pen operation
q	Certificate: M yes (e.g. FDA; EN 10204-3.1; NACE), X no

Application/Limitation

- Sensors for installation in watertight spaces below the bulkhead deck on passenger ships as required by the IMO MSC.1/Circ.1291.

- Not intended for installation in cargo tanks.

- Required alarms of flooding detection system not included.

- Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according

to DNV Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Examination documentation

Tests carried out

IEC-60092-504:2016,
IEC 60529 Ed. 2.2:2013 incl. Corr1:2013 and Corr2:2015,
IMO MSC.1/Circ.1291.

Not applicable standards:

IMO Res. MSC.188(79),
IEC 62923-1:2018,
IEC 62923-2:2018.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings