

Ship approvals and installation instructions

VEGADIS 81, 82

VEGABOX 03

DNV - TAA00002DB

BV - 43816/B0 BV

CCS - HB23PTB00021_01



Document ID: 48866



VEGA



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA00002DB
Revision No:
1

This is to certify:

that the **Peripheral Equipment**

with type designation(s)
VEGADIS 81/82, VEGABOX 03

issued to

VEGA Grieshaber KG
Schiltach, Germany

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	C/D*

*Depending on the enclosure IP Degree of Protection

Issued at **Hamburg** on **2024-07-09**

This Certificate is valid until **2029-07-08**.

DNV local unit: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**

for DNV



Digitally Signed By:
Jowita Permoda

Location: **DNV Høvik, Norway**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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.



Form code: TA 251

Revision: 2023-09

www.dnv.com

Page 1 of 3



Job ID: 262.1-030846-2
 Certificate no.: TAA00002DB
 Revision No: 1

Product description

Indicating Unit, Indicating and Adjustment Unit, Connection Box

VEGADIS 81/82

DIS 81(*)/82(*) **a b c d e f g h i**

a Scope: **A, I, C, F, U, G, B, N, M, K**

b Approval: **M, O, Q**

c Electronics: **X** 2-wire, **H** 2-wire HART®, **I** Digital (I²C-Bus, DIS81 only)

d Housing: **K, A, V, S**

e Protection: **N, I**

f Cable entry / connection: **M, K, D, N, J, O, P, S, T, U, V, 6, 8**

g Indicating/adjustment module (PLICSCOM): **X** without, **A** mounted

h Mounting: **A, D, E, C, F**

Software version: 1.xx.yy

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

VEGABOX 03

BOX03 **a b c d e f g h**

a Scope: **A, I, C**

b Approval: **M, O, P, Q**

c Version: **A** Pressure compensation

d Housing: **K, A, V**

e Protection: **I, N**

f Cable Entry: **M, K, D, N, J, O, P**

g Mounting: **A, D, E, C**

h Certificates: **X** no, **M** yes

Place of manufacture

VEGA Grieshaber KG
 Am Hohenstein 113
 77761 Schiltach, GERMANY

VEGA Americas, Inc.
 3877 Mason Research Pkwy,
 Mason, OH 45036 Unites States

VEGA India Level and Pressure Measurement Pvt. Ltd.
 Plot No. 1, Gat No. 181 Village - Phulgaon, Tal. Haveli
 412216 Pune India

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

Overall Reference Document No.1031517_000.docx Rev ID: 01 (Issue 00, dated 03.07.2024)

Software Release Document acc. NE 53 dated 2021-03-16

Type approval assessment report issued at Augsburg on 2024-06-18

Type approval assessment report issued at Certification & Inspection Services on 2024-07-01

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

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



Job ID: **262.1-030846-2**
Certificate no.: **TAA00002DB**
Revision No: **1**

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE



Marine & Offshore

Certificate number: 43816/B0 BV

File number: AP4646

Product code: 2617H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

VEGA Grieshaber KG

Schiltach - GERMANY

for the type of product

SIGNALING AND CONTROL DEVICES

VEGADIS 81/82 and VEGABOX 03

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31 / 41BS

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 14 Jul 2026

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 14 Jul 2021,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarnb.com/veristamb/jsp/viewPublicPdftypc.jsp?id=ir7kirlaaq>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

VEGADIS 81 and 82 series are external display units and adjustment units.
VEGABOX 03 is an external connection box for VEGAWELL sensors.

1.1 - Main characteristics:

Power supply: 24V DC
Output: 4..20mA/HART (for VEGADIS 82)
Degree of protection: IP66/67 (plastic housing)
IP66/68 (0.2bar) (aluminium and stainless steel housing)
Software version: 1.xx.xx.xx (for VEGADIS 81 / 82 only)

1.2 - Types:

VEGADIS 81

DIS81. a b l c d e f g ...

a = Scope:

A; B; C; G; I; M; R; U; F; N; K; D

b = Approval:

M; O; Q

c = Housing:

A; K; V;

d = Degree of protection:

I; N

e = Cable entry:

6; 8; D; J; K; M; N; O; P

f = Indication module:

A; X; F; K

g = Mounting:

A; C; D; F

VEGADIS 82

DIS82. a b c d e f g h ...

a = Scope:

A; I; C; F; R; U; G; B; N; M; K; E; D

b = Approval:

M; O; Q

c = Electronic:

X; H

d = Housing:

K; A; V

e = Degree of protection:

I; N; S;

f = Cable entry:

6; 8; D; J; K; M; N; O; P; X

g = Indication module:

A; X; F; K

h = Mounting:

A; C; D; F

VEGABOX 03

BOX 03. a b A c d e f ...

a = Scope:

A; I; R; G; B; C

b = Approval:

M; O

c = Housing:

K; A; V

d = Degree of protection:

I; N

e = Cable entry:

D; K; J; M; N; O; P

f = Mounting:

A; C; D; F

2. DOCUMENTS AND DRAWINGS:

- 43814-EN-150630; 45300-EN-150114; 45925-EN-140526; 46591-EN-150114
- GE3306 dated 20.05.2014; GE3344 dated 08.07.2014
- Dekra Certification B.V.: DEKRA 14ATEX0098X issue 1; IECEX DEK 14.0075X dated 2015-06-01;
- IECEX DEK 14.0048X dated 2015-05-20
- Dekra Exam GmbH: IECEX BVS 13.0069 dated 2013-07-23;
- Physikalisch-Technische Bundesanstalt (PTB): IECEX PTB 06.0048 issue; 1 dated 2013-5-23
- TÜV Rheinland Industrie Service GmbH: IECEX TUR 14.0007X dated 2014-05-12
- For B0 version:
 - 43814-EN-170913; 45300-EN-210216; 45925-EN-170202; 46591-EN-210216
 - GE3618-01 dated 19.09.2016; GE3626-02 dated 12.09.2016; SB1503-1-02-0 dated 30.08.2016
 - TÜV 15 ATEX 161127 U issue:01 dated 2019-10-15; IECEX TUN 16.0002U issue:2 dated 2019-11-15

3. TEST REPORTS:

- Aucoteam GmbH: 3766/01 dated 30.11.2001
- Hanscontrol Zertifizierungsgesellschaft mbH: 09-L-01252-01 dated 20 November 2009;
- Paconsult GmbH: 14-5756 dated 20 March 2014; 08-2268 - Rev. 1 dated 24 Februar 2009
- VEGA Grieshaber KG: 1-03_DIS81_M20X1,5_F1_3; 1-03_DIS81_M20X1,5_F1_4; 1-03_DIS81_M20X1,5_F1_5;
- 1-03_DIS82_F2_1; 1-05_DIS81_M20X1,5_F1_8
- For B0 version:
 - Hanscontrol Zertifizierungsgesellschaft mbH: 2101-0046101R06A dated 23.03.2021; 2101-0046101R07A dated 24.03.2021;
 - 1701-0012401R01 dated 09.05.2017; 2101-0046104R01B dated 28.04.2021

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfType.jsp?id=ir7kirlaaq>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

4. APPLICATION/LIMITATION:

- 4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships
4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
4.3 - Bureau Veritas Environmental Category, **EC Code: 31 / 4IBS**
4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zones.
4.5 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev7.
4.6 - Only Hardware and Firmware successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.
4.7 - Ex-certification is not covered by this certificate. Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for Safe Use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.
4.8 - The installation shall comply with the Manufacturer's recommendation described in the above-referenced documentation.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned products are to be supplied by **VEGA Grieshaber KG** in compliance with the type described in this certificate.
5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
5.3 - **VEGA Grieshaber KG** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

VEGA Grieshaber KG
Am Hohenstein 113
D-77761 Schiltach
GERMANY

VEGA Americas Inc.
4241 Allendorf Drive
Cincinnati, OH 45209
USA

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Equipment type or model identification.
- Date of manufacture and/or serial number.
- Ex marking, as relevant
- The title and version of each software element included in the installed software system shall be marked on command on the equipment.

7. OTHERS:

- 7.1 - It is the responsibility of **VEGA Grieshaber KG** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate N° 43816/A0 BV issued on 11 Dec 2015 by the Society.

***** END OF CERTIFICATE *****



中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
HB23PTB00021_01

型式认可证书
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。
This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

VEGA Grieshaber KG

地址/Address

Am Hohenstein 113, D-77761 Schiltach, Germany

产品名称/Product

显示与调整模块
Display and adjustment module
电工仪表
Electric Meter

附加标志/Notations

无/Nil.

认可标准/Approval Standard

1. 中国船级社《钢质海船入级规范》(2022)及其变更通告 第4篇第1章, 第7篇第2章
Part Four Chapter 1, Part Seven Chapter 2 of China Classification Society Rules for Classification of Sea-Going Steel Ships 2022 and its Change Notices

用于/Intended for

船舶/Ships

产品明细/Product Description

电工仪表/Electric Meter (M0001)

名称/Name	属性(值)/Value	单位/Unit
产品名称/Product Name	Display and adjustment module	
型号/Type	VEGADIS 81/82; Connection Box: VEGABOX 03	
规格/Specification	see additional pages	

证书有效期至/This Certificate is valid until 2027年06月30日/ Jun. 30,2027

发证机构/Issued by 中国船级社 汉堡分社
CCS Hamburg Branch

签发日期/Date 2023年06月26日
Jun. 26,2023

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体, 必须同时使用。纸质证书每页均须由本社盖章方为有效, 电子证书含数字签名方为有效。本证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。有关方对所持证书的真实性有疑问时, 可向本社检验机构咨询。This Certificate is issued pursuant to the Rules of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubtful about the authenticity of the certificate may inquire of the Society or its offices.

Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)



UTN:P023-86633892

第1页共3页/Page 1 of 3

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : NP15A00630

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : see additional pages
试验报告日期/ Test Report Date :

认可后的产品检验方式/ Method of Product Inspection after Approval

按规范只认可不进行产品检验的产品/The product approved only in term of the rules:
认可后的产品检验由制造厂按本社批准的产品检验计划进行检验, 经检验合格后由制造厂签发合格证明, 并连同该产品的本社认可证书复印件一并交付用户, 制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。
After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

认可保持条件/ Maintenance Requirements of Approval

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。
After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.
2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。
The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.
3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。
Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.
4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。
Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.
5. 如果属于获得型式认可 B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作应在周年日的前后三个月内进行。
If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

备注/Remarks

本证书由原型式认可证书 (No. HB18PTB00002_08) 变更并换新。
This certificate is modified and renewed from the previous Type Approval Certificate No. HB18PTB00002_08.

本社已审核了产品厂无石棉声明, 但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society.
However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

Manufacturer/Address:

1. VEGA Grieshaber KG / Am Hohenstein 113, 77761 Schiltach, Germany
2. VEGA Americas, Inc. / 3877 Mason Research Parkway, Mason, OH 45036, USA
3. VEGA India Level and Pressure Measurement Pvt. Ltd. / Plot No.1, Gat No. 181, Village-Phulgon, Tal. Haveli, 412216 PUNE, India

中国船级社汉堡分社

CCS Hamburg Branch

注：本证书含有附页，共1页

Note: The certificate is attached with additional 1 page(s)

1. Product Description:

Name	Display and adjustment module
Type	VEGADIS 81/82
Power source	Depending on corresponding VEGA plics®-Sensor Family
Description	Only applicable as part of VEGA plics®-Sensor Family
Accuracy	Depending on corresponding VEGA plics®-Sensor Family
Measure Range	Depending on corresponding VEGA plics®-Sensor Family
Firmware	1.xx
Degree of protection	IP66/IP67, IP66/IP68 (0.2 bar)
Explosion-Proof marking	It has IECEx etc. certificate, such as follow: Ex ia IIC T6 Ga or Ex ia IIC T6 Gb IECEX Certificate of Conformity No.: IECEX PTB 06.0048X Issuing Body: Physikalisch-Technische Bundesanstalt (PTB) Ex ia IIC T6...T1 Ga or Ex ia IIC T6...T1 Gb IECEX Certificate of Conformity No.: IECEX DEK 14.0048X Issuing Body: DEKRA Certification B.V.

Name	Breather housing with ventilation filter
Type	VEGABOX 03
Degree of protection	IP66/IP67, IP66/IP68 (0.2 bar)
Explosion-Proof marking	It has IECEx etc. certificate, such as follow: Ex ia IIC T6...T1 Ga or Gb IECEX Certificate of Conformity No.: IECEX TUR 14.0007X Issuing Body: TUV Rheinland Industrie Service GmbH

2. Approval Test Report

No	Test Report No.	Test Report Date	Laboratory / Address
1	09-L-01252-01	2009.10.15	Hansecontrol Zertifizierungsgesellschaft GmbH / Schleidenstrasse 1, 22083 Hamburg, Germany
2	1701-0012401R01	2017.05.09	
3	2101-0046101R06A	2021.03.24	
4	2101-0046101R07A	2021.03.24	
5	2101-0046104R01B	2021.04.28	
6	14-5756	2014.03.20	PAConsult GmbH / Birkenau 3, 22087 Hamburg, Germany
7	20-13294A	2020.06.22	
8	GL-14-060129	2014.02.01	VEGA Grieshaber KG / Am Hohenstein 113, 77761 Schiltach, Germany

3. Limitation/Application:

Please see production operating instructions.

The Ex-Proof parameters of the approved products originate from Ex- Certificate received from manufacturer, not approved by CCS.

The above mentioned devices can be installed with an Ex-approval as well as without Ex-approval according to the field of application.

If the device is used for explosive-proof purposes, the explosion-proof certificate is essential, and the Type Approval Certification will be invalid if the Ex-approved products do not hold valid Ex Certificate. For Ex-devices it is absolutely necessary to affix the above ignition protection label to the device.

Whereas an application in non-explosive area does not require an Ex-certificate.

Printing date:

VEGA

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

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48866-EN-240715

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