

## Ship approvals

### VEGAWELL 51, 52

### VEGABOX 02

DNV GL - TAA00001BY

LR - 08/20045 (E3)

ABS 09-HG424726-PA

ABS 09-HG424726-1-PDA-DUP

CCS - HB17T00024\_01

CCS - WG15T00005\_02

RINA - ELE119013XG

BV - 20879/C0

RMROS - 18.40030.250

RMROS - 15.09133.381

ClassNK - TA18056M

KR - HMB21504-AE005



Document ID: 33792



# VEGA



### TYPE APPROVAL CERTIFICATE

#### This is to certify:

**That the Pressure Transmitter**

with type designation(s)

**VEGAWELL 51, VEGAWELL 52, VEGABOX 02**

Issued to

**VEGA Grieshaber KG**

**Schiltach, Germany**

is found to comply with

**DNV GL 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 GL.**

#### Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
<b>VEGAWELL 51, VEGAWELL 52</b>	<b>D</b>	<b>B</b>	<b>A</b>	<b>B</b>	<b>D (IP68)</b>
<b>VEGABOX 02</b>	<b>D</b>	<b>B</b>	<b>A</b>	<b>B</b>	<b>B (IP54)</b>

Issued at **Hamburg** on **2017-08-01**

This Certificate is valid until **2022-07-31**.

DNV GL local station: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**



Digitally Signed By: Rinkel, Marco  
for **DNV GL**

Signing Date: 2017-08-02

Location: Hamburg - On behalf of

**Joannis Papanuskas**  
**Head of Section**

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.



Form code: TA 251

Revision: 2016-12

www.dnvgl.com

Page 1 of 4

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Job Id: **262.1-004521-6**  
 Certificate No: **TAA00001BY**

## Product description

### VEGAWELL WL51/52. aM bc d e f g h i j k

**a** = Approval

- X** without Ex - Approval
- A...Z** in combination with Ex - Approval for use in hazardous atmospheres

**bc** = Process fitting

**AA/A1...ZZ/Z9** without, straining clamp, screwed connection, housing with cable locking\*

**d** = Material of suspension cable\*

- B** FEP
- D** PUR

**e** = Total length

**T** customer specific\*

**f** = Material sensor housing

**A...Z** Stainless Steel, PVDF, Titan

**g** = Measuring cell seal

**1/A...9/Z** FKM, FFKM, EPDM, others

**h** = Pressure / measuring range

**A...Z** gauge max.. 25 bar  
**1...9** absolute pressure max. 25bar (for VEGAWELL 52 up to 60 bar)

**i** = Electronics

- D** 4...20 mA / HART® + Pt100, 4-wire
- C** 4...20 mA / 2-wire

### VEGABOX BOX 02. aM b c d

**a** = Approval

- X** without Ex - Approval
- A...Z** in combination with Ex - Approval for use in hazardous atmospheres

**b** = Function

- A** Pressure compensation
- C** Pressure compensation and temperature transmitter 4...20mA / HART

**c** = Protective cover

- X** without
- W** with

**d** = identification label

- X** without
- V** of stainless steel, laser marking

\*Cable installation inside tank only; Connection with terminal box (e.g. VEGABOX) outside the tank has to be realized by the shortest possible cable length (not longer than 6m).

Job Id: **262.1-004521-6**  
Certificate No: **TAA00001BY**

## Place of manufacture:

VEGA Grieshaber KG  
Am Hohenstein 113  
77761 Schiltach  
GERMANY

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

## Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Cable installation inside tank only; Connection with terminal box (e.g. VEGABOX) outside the tank has to be realized by the shortest possible cable length (not longer than 6m).

The transmitters with plastics housing (PVDF) are approved for pressures up to 10 bar.

## Type Approval documentation

Operating instructions	VEGAWELL 51 32468-EN-070322
Safety instructions	VEGABOX 02 33451-EN-070625
Mechanical drawings	GE2472 rev.-, GE1825 rev.-, ZG2847 rev.-, ZG2848 rev.02, GE2322 rev.-, GE2326 rev.01
Electrical drawings	BS77 rev.-, SB1010 rev.02, SB1012 rev.02, SB1084 rev.09, SB1150 rev.0, SB1150 rev.0
Test reports	Hansecontrol No. 07-L-00339-01 dated 2007-04-20 Hansecontrol No. 07-L-00339-02 dated 2007-04-23 Hansecontrol No. 07-L-00954-01 dated 2007-07-21 Hansecontrol No. 07-L-00956-01 dated 2007-07-26 Hansecontrol No. 08-L-00256-01 dated 2008-02-27 paconsult No. 355-04 dated 20047-05-13 paconsult No. 08-1923 dated 2008-09-19 paconsult No. 07-1587 dated 2007-05-24 paconsult No. 07-1650 dated 2007-08-06 VEGA VZW0407 dated 2007-12-10 VEGA I-03-WELL_52_PVDF_F1_1 dated 2007-12-10 VEGA I-04-WELL_52_PVDF_F1_1 dated 2007-12-10 AUCOTEAM No. 2813 / 97 dated 1997-11-27
EC-Type Examination Certificate	TÜV 06 ATEX 553449 X

Type approval renewal assessment report issued at Augsburg on 2017-07-24.

Type approval renewal assessment report issued at Cincinnati (OH) on 2017-06-27.

## Tests carried out

Job Id: **262.1-004521-6**  
Certificate No: **TAA00001BY**

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

### Marking of product

VEGAWELL 51, VEGAWELL 52, VEGABOX 02

### 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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE



## Type Approval Certificate

*This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.*

This certificate is issued to:

<b>PRODUCER</b>	VEGA Grieshaber KG Am Hohenstein 113 77761 Schillach Germany
<b>DESCRIPTION</b>	Suspension pressure transmitter with integrated temperature sensor; Connection box with or without temperature transmitter.
<b>TYPES</b>	VEGAWELL WL51/52. aM bc d e f g h I  a = approval X without Ex - Approval A with Ex - Approval ATEX II 1G, II 2G Ex ia IIC T6 Further Ex - Approvals may be provided by the manufacturer  bc = process fitting AA/ A1...ZZ/ Z9 without, straining clamp, screwed connection, plastic housing with cable locking, others.  d = material suspension cable B FEP D PUR P PA  e = total length T customer specific (refer to "Other Conditions")

<b>Certificate No.</b>	08/20045 (E3)
<b>Issue Date</b>	31 August 2018
<b>Expiry Date</b>	01 September 2023
<b>Sheet</b>	1 of 4



Lloyd's Register EMEA  
71 Fenchurch Street, London EC3M 4BS

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Hamburg Technical Support Office  
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**TYPES CONTINUED**

- f = material sensor housing  
 K Stainless Steel with PE plastic - coating  
 V Stainless Steel (316 L)  
 T Titan  
 G Titan with glass feed through  
 P PVDF
- g = measuring cell seal  
 1 FKM  
 2 FFKM  
 3 EPDM
- h = pressure / measuring range  
 A...Z gauge max. 25 bar  
 1...9 absolute pressure max. 25 bar (for VEGAWELL 52 up to 60 bar)
- i = electronics  
 D 4...20 mA / HART® + Pt100, 4-wire  
 C 4...20 mA / 2 - wire

**VEGABOX BOX 02. aM b c d**

- a = Approval  
 X without Ex - Approval  
 A with Ex - Approval ATEX II 1G or II 2G Ex ia IIC T6
- b = function  
 A Pressure Compensation  
 C Pressure Compensation and Temperature Transmitter  
 4...20 mA / HART

**Certificate No.** 08/20045 (E3)  
**Issue Date** 31 August 2018  
**Expiry Date** 01 September 2023  
**Sheet** 2 of 4



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33792-EN-190214





## TYPES CONTINUED

- c = protective cover  
X without  
W with
- d = designation label  
X without  
V made of stainless steel (laser marking)  
W made of foil (laser marking)

## APPLICATION

Marine applications for use in environmental categories ENV1, ENV2, ENV3 and ENV5 as defined in LR Type Approval System, Test Specification Number 1 – 2002.

## ADDITIONAL TESTS

Low temperature (-40°C/16 hrs), display is readable down to -15°C  
Dry heat (80°C/16 hrs)  
Enclosure test IP 66/68 (20 bar)

## DESIGN CODE

Manufacturer's specification

## OTHER CONDITIONS

Ratings for application in hazardous areas are to be obtained from the applicable Ex-Certificates.  
Cable installation inside tank only, connection with terminal box (e.g. VEGABOX) outside the tank has to be realized by the shortest possible length (not longer than 6m).

## PLACE OF PRODUCTION

VEGA Grieshaber KG  
Am Hohenstein 113  
77761 Schillach  
Germany

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

## Certificate No.

08/20045 (E3)

## Issue Date

31 August 2018

## Expiry Date

01 September 2023

## Sheet

3 of 4



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*The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.*

*The Design Appraisal Document No. HTS/ETS 37278 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

**Certificate No.** 08/20045 (E3)  
**Issue Date** 31 August 2018  
**Expiry Date** 01 September 2023  
**Sheet** 4 of 4



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## Part 3

### Transmitters / Transducers

Description of Product					Cert. No.
Type	Details of Approval	Application	Remarks		
Suspension pressure transmitter with integrated temperature sensor; connection box with or without temperature transmitter  TYPES VEGAWELL WL51/52, aM bc d e f g h I a = approval X without Ex - Approval A with Ex - Approval ATEX II 1C, II 2G Ex ia IIC T6 Further Ex - Approvals may be provided by the manufacturer  bc = process fitting AA/A1...ZZ/Z9 without, straining clamp, screwed Connection, plastic housing with cable locking, others.  d =material suspension cable B FEP D PUR P PA  e = total length T customer specific (see remark)  f = material sensor housing K Stainless Steel with PE plastic - coating V Stainless Steel (316 L) T Titan G Titan with glass feed through P PVDF	Power supply (Vdc): 24	ENV1 ENV2 ENV3 ENV5 (2002)  Low temperature (-40°/16 hrs) Dry heat (80°/16 hrs) Enclosure test IP 66/68 (20bar)	Expires: 01 September 2023  Ratings for application in hazardous areas are to be obtained from the applicable Ex Certificates. Cable installation inside tank only, connection with terminal box (e.g. VEGABOX) outside the tank has to be realized by the shortest possible length (not longer than 6m).	08/20045 (E3)	
Producer/Licence No.					
VEGA Grieshaber KG Am Hohenstein 113 77761 Schiltach Germany					

Part 3

Transmitters / Transducers

Producer / Licence No.	Description of Product				Cert. No.
	Type	Details of Approval	Application	Remarks	
	g = measuring cell seal 1 FKM 2 FKM 3 EPDM  h = pressure / measuring range A...Z gauge max. 25 bar 1...9 absolute pressure max. 25 bar (for VEGAWELL 52 up to 60 bar)  i = electronics D 4...20 mA / HART® + Pt100, 4-wire C 4...20 mA / 2 - wire  VEGABOX BOX 02. aM b c d  a = Approval X without Ex - Approval A with Ex - Approval ATEX II 1G or II 2G Ex Ia IIC T6  b = function A Pressure Compensation C Pressure Compensation and Temperature Transmitter 4...20 mA / HART  c = protective cover X without W with  d = designation label X without V made of stainless steel (laser marking) W made of foil (laser marking)				

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## Design Appraisal Document

Lloyd's Register EMEA  
Hamburg Technical Support Office  
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20457 Hamburg  
Telephone +49 (0)40 328107-0 Fax +49 (0)40 328107-480  
E-mail: hamburg-technical-support@lr.org

Date  
31 August 2018

Please quote this reference number on all future communications  
HPC1462196/37278-18/TW/KW

**THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2017  
ISSUED TO: VEGA GRIESHABER KG  
FOR: SUSPENSION PRESSURE TRANSMITTER WITH INTEGRATED TEMPERATURE SENSOR;  
CONNECTION BOX WITH OR WITHOUT TEMPERATURE TRANSMITTER.  
TYPE APPROVAL CERTIFICATE NO. 08/20045 (E3)**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System Procedure TA14 and this Design Appraisal Document forms part of the Certificate.

### APPROVAL DOCUMENTATION

Unnumbered	Application Checklist	22.05.2018
HTS/ETS 31360-15	Marine Design Appraisal Document for Certificate No. 08/20045(E2)	23.03.2015
08/20045(E2)	Type Approval Certificate Extension	23.03.2015
HPC1562053	Production Quality Assessment Form	16.04.2015
WO4007531	Production Quality Assessment Form	12.06.2015
01 100 1300573	DIN EN ISO 9001 : 2015 Certificate	31.05.2016



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FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Document no: HTS/ETS 37278-18  
Issue number 0  
Page 2 of 2

Date  
31 August 2018

Please quote this reference number on all future communications  
HPC1462196/37278-18/TW/KW

### Supplementary Type Approval Terms and Conditions

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.*

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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## Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 25-OCT-2022. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

**Product Name:** Pressure Level Gauging Transmitter  
**Model Name(s):** VEGAWELL Series WL51, WL52 & WL72

**Presented to:**  
VEGA GRIESHABER KG  
ZERTIFIKATSWESSEN  
AM HOHENSTEIN 113  
Germany

<b>Intended Service:</b>	Pressure measurement of gases, vapours and liquids on ACC, ACCU and ABCU classed vessels. Applicable for tank level measurements.
<b>Description:</b>	(a) Transmitters transforming pressure into electric signals by capacity change of sapphire-ceramic diaphragm. (b) Connection box with or without temperature transmitter
<b>Tier:</b>	3
<b>Ratings:</b>	Gauge and absolute pressure ranges: 0...0.1 through 0 ... 25 bar (60 bar); Ambient temperature range: -40°C ... 80°C; Output signals: 4 ... 20 mA, 4 ... 20 mA/ HART®; Power supply by approved unit, 24 V(DC), max. 36V(DC) non-Ex and max. 30V(DC) Ex; Degree of protection: IP 68 (30 bar, Transmitter), IP 68 (1 bar external housing); Explosion proof protection: IS/ I, II, III/ 1/ ABCDEFG/ T4 Ta=80°C, T6 Ta=60°C, GE2627, Entity: Type 4X/ 6P, IP68, I/ 0/ AEx ia/ IIC/ T4 Ta=80°C, T6 Ta=60°C GE2627, Entity: Type 4X/ 6P, IP68 (FM Approvals 3039829); II 1G, II 2G Ex ia IIC T6 Ga, Gb (TUEV 06 ATEX 553449 C); For approved components assembling / order specifications click on link 'Additional Product Details'.
<b>Service Restrictions:</b>	Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined. - Intrinsically safe electric systems for power supply/output wiring and shielded conductors are to be utilized for certified-safe type versions. - For



Certificate Number: 17-HG1677056-PDA

**Comments:**

passenger vessels, pressure/level gauges are not to be installed on flammable oil tanks where they require tank wall penetration below the tank top.

- Each particular application and installation is to be specifically approved in conjunction with the relevant systems and tank arrangements. - For certified-safe type equipment arrangements refer to 4-8-1/5.3.2 and 4-8-4/27 of the Rules. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

**Notes / Documentation:**

Drawing No. 06 ATEX 553449 X, ATEX Certificate, Revision: -, Pages: 1 Drawing No. 07-1650, Test Report, Vibration, 06/08/2007, Revision: 0, Pages: 1 Drawing No. 07-L-00954-01, Test Report, EMC, 21/07/2007, Revision: -, Pages: 1 Drawing No. 07-L-00956-01, Test Report, EMC, 26/07/2007, Revision: -, Pages: 1 Drawing No. 08-L-00256-01, Test Report, EMC, 27/02/2008, Revision: -, Pages: 1 Drawing No. 3039829, FM Approvals, Revision: -, Pages: 1 Drawing No. 35401, Operation Instruction, 4 ... 20 mA, Revision: -, Pages: 1 Drawing No. 35402, Operation Instruction, 4 ... 20 mA/HART PT100, Revision: -, Pages: 1 Drawing No. 36785, Operation Instruction, 4 ... 20 mA/HART, Revision: -, Pages: 1 Drawing No. WL52 XXX4BTD1AC1X, Dimension Drawing, Revision: 0, Pages: 1

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 17-HG1677056-PDA, dated 26/Oct/2017 remains valid until 25/Oct/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**ABS Rules:**

2017 Steel Vessel Rules 1-1-4/7.7, 4-1-Appendix 3 and 4, 4-6-4/13.5.6(b), 4-6-4/15.3.4(b), 4-8-3/13, 4-8-4/27.5.1, 4-9-8/13/Table 1

**National Standards:****International Standards:****Government Authority:****EUMED:****Others:**

None

**Model Certificate****Model Certificate No****Issue Date****Expiry Date**

PDA

17-HG1677056-PDA

27-OCT-2017

25-OCT-2022



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product, Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.



证书格式号/Form: T01.02-  
OD000148

证书编号/Certificate No. HB17T00024 01

**This is to certify** that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

## 压力变送器

### PRESSURE TRANSDUCER

制造厂/Manufacturer

**VEGA Grieshaber KG**

Am Hohenstein 113, D-77761 Schiltach, Germany

### 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》(2015)及其修改通报第7篇 第2章  
Chapter 2, Part Seven of China Classification Society Rules for Classification of Sea-going Steel Ships 2015 and its Amendments
2. 中国船级社《钢质海船入级规范》(2015)及其修改通报第4篇 第1章  
Chapter 1, Part Four of China Classification Society Rules for the Classification of Sea-going Steel Ships 2015 and its Amendments

证书有效期至/ This Certificate is valid until

2021年7月16日 / Jul. 16, 2021

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

签发日期 2017年9月12日  
Date Sep 12 2017

本证书根据中国质量万里行《全国商品质量万里行活动管理办法》及《关于全国商品质量万里行活动的说明》制定。当企业出具本证书时,即视为对本企业、本品牌、本商标的质量承诺具有完全的真实性、合法性、有效性,即证明其质量、信誉和价位均符合国家强制性认证证书的部分内容,本证书可作为代表本社对产品质量的说明,有关方面均可持证书向本社查询,并以此向消费者提供和获得相应的服务。The Certificate is issued pursuant to the Rules for Classification, Sealing, Storage and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society 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. This approval certificate does not constitute the suspicion of the Society about the quality of the unit/batch product. Related parties who are doubtful about the authenticity of the certificate may inquire of the Society or its offices.

**CCS**



中国船级社总部/CCS Headquarters 北京市东直门南大街9号船检大厦 邮编: 100007 电话/Tel: +86(10)58112908 传真/Fax: +86(10)58112911  
CCS Branch 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网站/Web Site: <http://www.ccs.org.cn>  
本地检验机构/CCS Local Office: 中国船级社武汉分社 CCS Branching Branch 电话/Tel: 0019-10-3800890 传真/Fax: 0019-10-3800891

HB88466737  
No. 16671805

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证书编号/Certificate No. HB17T00024\_01

**产品明细/ Product Description**

压力变送器/PRESSURE TRANSDUCER

产品型号/Type

: Suspension Pressure Transmitter  
VEGAWELL51, VEGAWELL52  
Connection box VEGABOX02

额定电压/Working Voltage

输出电流/Output Current

精度等级/Accuracy Class

外壳防护等级/Degree of Protection of Enclosure

: DC 24 ( range 9.6 ... 36 VDC ) V  
: 4...20 mA  
: 0.1 resp. 0.2  
: IP68 (25 bar, 1 bar external  
housing)**批准的图纸和设计计算书/ Approved Drawings and Design Calculations**

图纸批准号/ Drawings Approval No. : HB17A00018

**产品认可试验报告/ Approval Test Report**

试验报告编号/Test Report No.	:	07-L-00339-01
试验报告日期/Test Report Date	:	2007-04-20
试验单位/ Laboratory	:	Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	:	Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	:	07-L-00339-02
试验报告日期/Test Report Date	:	2007-04-23
试验单位/ Laboratory	:	Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	:	Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	:	07-L-00954-01
试验报告日期/Test Report Date	:	2007-07-21
试验单位/ Laboratory	:	Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	:	Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	:	07-L-00956-01
试验报告日期/Test Report Date	:	2007-07-26
试验单位/ Laboratory	:	Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	:	Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	:	08-L-00256-01
试验报告日期/Test Report Date	:	2008-02-27
试验单位/ Laboratory	:	Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	:	Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	:	07-1587
试验报告日期/Test Report Date	:	2007-05-24
试验单位/ Laboratory	:	paconsult GmbH
试验单位地址/ Test Address	:	Ulmenau 6-10, D-22087 Hamburg, Germany
试验报告编号/Test Report No.	:	07-1650
试验报告日期/Test Report Date	:	2007-08-06
试验单位/ Laboratory	:	paconsult GmbH
试验单位地址/ Test Address	:	Ulmenau 6-10, D-22087 Hamburg, Germany

**产品适用范围/ Application of the Product**

船舶与海上设施/Ships and Offshore Installations

**认可保持条件/ Maintenance Requirements of Approval**

1. 型式认可后, 如果产品及制造方法有所改变, 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, 且超过认可的范畴; 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,

Nº 17023749

证书编号/Certificate No. HB17T00024\_01

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CCS

证书编号/Certificate No. HB17T00024\_01

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告本社批准。

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。检查工作可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 periodical audit should be carried out within 3 months before and after the anniversary date which corresponds to the date of expiry of the relevant.

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

按照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.

#### 对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society:无/Nil.

产品如下原材料和零部件应经本社检验/The following materials and components of the product should be inspected by the Society:无/Nil.

产品如下原材料和零部件的制造厂清单,经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:无/Nil.

#### 责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证,并且不对与本社授权或检验无关的各方负责,不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

#### 其他/ Others

本证书由原型式认可证书(No. HB13T00018\_01)换新并替代原证书。

This certificate is renewed from and supersedes the previous Type Approval Certificate No. HB13T00018\_01.

2. The Ex-Proof parameters of the approved products originate from Ex-Certificate received from

No. 17023750

证书编号/Certificate No. HB17T00024\_01

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证书编号/Certificate No. HB17T00024\_01

manufacturer (Issuing Body: TUEV NORD CERT GmbH & Co. KG/CSA Group, Ex-Certificate No.: TUEV 06 ATEX 553449 X/ CSA 2501894 (LR 108043)/IECEX TUN 06.0014X/TUEV 07 ATEX 553685 X. Standards for Ex-Proof: EN 60079-0:2009; EN 60079-11:2007; EN 60079-26:2007; IEC60097-0:2011, IEC 60097-11:2011-06, IEC 60097-26:2006, EN 60079-0:2004, EN 50020:2002, EN 60079-26:2004), not approved by CCS.

This Type Approval Certification will be invalid if the approved products do not hold valid Ex-Certificate.

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.



\*\*\*\*\*本证书正文完/ End of Text\*\*\*\*\*

注: 本证书含有附页, 共1页

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

Nº 17023751

证书编号/Certificate No. HB17T00024\_01

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CCS

**Suspension Pressure Transmitter with integrated temperature sensor**

**Connection box with or without temperature transmitter VEGAWELL51, VEGAWELL52, VEGABOX02**

**VEGAWELL WL51/52. aM bc d e f g h i**

- a = Approval**
  - X without Ex - Approval
  - A with Ex - Approval, ATEX II 1G II 2G Ex ia IIC T6
- bc = process fitting**
  - AA/A1...ZZ/Z9 without, straining clamp, screwed connection, plastic housing with cable locking, others.
- d = Material Suspension cable**
  - B FEP
  - D PUR
- e = Total length**
  - T customer specific
- f = material sensor housing**
  - A...Z Stainless Steel, PVDF, Titan
- g = Measuring cell seal**
  - I/A...9/Z FKM, FFKM, EPDM, others
- h = Pressure / measuring range**
  - A...Z gauge pressure max. 25bar
  - I...9 absolute pressure max. 25bar (for VEGAWELL 52 max. 60bar)
- i = Electronics**
  - D 4...20 mA / HART+Pt100, 4-wire
  - C 4...20 mA / 2 - wire

**VEGABOX BOX 02. aM b e d**

- a = Approval**
  - X without Ex - Approval
  - A with Ex - Approval, ATEX II 1G or II 2G Ex ia IIC T6
- b = function**
  - A Pressure Compensation
  - C Pressure Compensation and Temperature Transmitter 4...20 mA / HART
- e = Protective Cover**
  - X without
  - W with
- d = Label**
  - X without
  - V made of stainless steel







中国船级社  
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: T01.02-  
QD000148

# 型式认可证书 CERTIFICATE OF TYPE APPROVAL

证书编号/Certificate No. WG15T00005 02

兹证明本证书所述制造厂生产的下列产品能够满足下面列明认可标准的要求。

This is to certify that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

认可产品/ Product Approved

压力变送器  
PRESSURE TRANSDUCER

制造厂/ Manufacturer

VEGA Americas, Inc.

4170 Rosslyn Drive, Cincinnati, Ohio 45209, USA

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》(2012)及其修改通报第4篇 第1章  
Chapter 1, Part 4 of CCS Rules for Classification of Sea-going Steel Ships 2012 and its Amendments
- 2.中国船级社《钢质海船入级规范》(2012)及其修改通报第7篇 第2章  
Chapter 2, Part 7 of CCS Rules for Classification of Sea-going Steel Ships 2012 and its Amendments
- 3.IEC 60079 and its Amendments: Explosive atmospheres

证书有效期至/ This Certificate is valid until

2019年7月1日 / Jul. 1, 2019

发证机构  
Issued by 中国船级社温哥华办事处  
CCS Vancouver Office

签发日期  
Date 2015年7月2日  
Jul. 2, 2015

本证书根据中国船级社《钢质海船入级规范》及有关规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页时，所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不得摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的担保。有关各方对所持证书的真实性负责。如有任何疑问，可向本社投诉机构咨询。

This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society 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. This approval certificate does not constitute the inspection of the Society about the quality of the certificate product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.

CCS  
中国船级社



WG20927061

中国船级社总部/CCS Headquarters: 北京市东直门南大街9号船检大厦 邮编: 100007 电话/Tel: +86(10)5812288 传真/Fax: +86(10)5812811  
CCS Wuxian, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: <http://www.ccs.org.cn>

本地检验机构/CCS Local Office: 中国船级社温哥华办事处 CCS Vancouver Office 电话/Tel: 001-604-278-1835 传真/Fax: 001-604-278-1856

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## 产品明细/ Product Description

压力变送器/PRESSURE TRANSDUCER  
产品型号/Type

: Suspension Pressure Transmitter  
VEGAWELL51, VEGAWELL52  
Connection box VEGABOX02

额定电压/Working Voltage  
输出电流/Output Current  
测量范围/Range of Detecting

: DC 24 ( range 9.6 ... 36 VDC ) V  
: 4...20 mA  
: 0...0.1 to 0...25  
bar (gauge/absolute)

精度等级/Accuracy Class  
外壳防护等级/Degree of Protection of Enclosure

: 0.1 resp. 0.2  
: IP68 (25 bar, 1 bar external  
housing)

## 批准的图纸和设计计算书/ Approved Drawings and Design Calculations

图纸批准号/ Drawings Approval No. : HB09T00014\_01

## 产品认可试验报告/ Approval Test Report

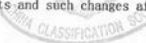
试验报告编号/Test Report No.	: 07-L-00339-01
试验报告日期/Test Report Date	: 2007-04-20
试验单位/ Laboratory	: Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	: Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	: 07-L-00339-02
试验报告日期/Test Report Date	: 2007-04-23
试验单位/ Laboratory	: Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	: Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	: 07-L-00954-01
试验报告日期/Test Report Date	: 2007-07-21
试验单位/ Laboratory	: Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	: Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	: 07-L-00956-01
试验报告日期/Test Report Date	: 2007-07-26
试验单位/ Laboratory	: Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	: Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	: 08-L-00256-01
试验报告日期/Test Report Date	: 2008-02-27
试验单位/ Laboratory	: Pruefinstitut HANSECONTROL GmbH
试验单位地址/ Test Address	: Wandsbeker Str. 13 e-f, D-22179 Hamburg, Germany
试验报告编号/Test Report No.	: 07-1587
试验报告日期/Test Report Date	: 2007-05-24
试验单位/ Laboratory	: paconsult GmbH
试验单位地址/ Test Address	: Ulmenau 6-10, D-22087 Hamburg, Germany
试验报告编号/Test Report No.	: 07-1650
试验报告日期/Test Report Date	: 2007-08-06
试验单位/ Laboratory	: paconsult GmbH
试验单位地址/ Test Address	: Ulmenau 6-10, D-22087 Hamburg, Germany

## 产品适用范围/ Application of the Product

船舶与海上设施/Ships and Offshore Installations

## 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



证书编号/Certificate No. WG15T00005\_02

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获本社批准。

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.

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

按照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.

#### 对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society: 无/Nil

产品如下原材料和零部件应经本社检验, 持有本社产品证书/The following materials and components of the product should be inspected and certificated by the Society: 无/Nil

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval: The details please refer to manufacturer submitted list No.Kopp T./2009-6-18"WELL52 List of Materials".

#### 责任声明/Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

#### 其他/Others

1. 防爆标志/Explosion-proof mark: ATEX II IG or II 2G EEx ia IIC T6

2. 本社已审核了产品“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.



中国船级社温哥华办事处

CCS Vancouver Office

\*\*\*\*\*本证书正文完/ End of Text\*\*\*\*\*

CCS  
CHINA CLASSIFICATION SOCIETY



## Suspension Pressure Transmitter with integrated temperature sensor Connection box with or without temperature transmitter VEGAWELL51, VEGAWELL52, VEGABOX02

VEGAWELL WL51/52. aM bc d e f g h i

- a = **Approval**
  - X without Ex - Approval
  - A with Ex - Approval, ATEX II 1G, II 2G Ex ia IIC T6
- bc = **process fitting**
  - AA/A1...ZZ/Z9 without, straining clamp, screwed connection, plastic housing with cable locking, others.
- d = **Material Suspension cable**
  - B FEP
  - D PUR
  - P PA
- e = **Total length**
  - K 6 m PE
  - F 12 m PE
  - M 27 m PE
  - T customer specific
- f = **material sensor housing**
  - K Stainless Steel with PE plastic - coating
  - V Stainless Steel (316 L)
  - T Titan
  - G Titan with glass feed through
  - P PVDF
- g = **Measuring cell seal**
  - 1 FKM
  - 2 FFKM
  - 3 EPDM
- h = **Pressure / measuring range**
  - A...Z gauge pressure max. 25bar
  - 1...9 absolute pressure max. 25bar (for VEGAWELL 52 max. 60bar)
- i = **Electronics**
  - D 4...20 mA / HART+Pt100, 4-wire
  - C 4...20 mA / 2 - wire

VEGABOX BOX 02. aM b c d

- a = **Approval**
  - X without Ex - Approval
  - A with Ex - Approval, ATEX II 1G or II 2G Ex ia IIC T6
- b = **function**
  - A Pressure Compensation
  - C Pressure Compensation and Temperature Transmitter 4...20 mA / HART
- c = **Protective Cover**
  - X without
  - W with
- d = **Label**
  - X without
  - V made of stainless steel



证书编号: WG15T00005\_02

- 1 -



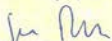


**TYPE APPROVAL CERTIFICATE**  
No. ELE135718XG

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description Type</i>	<b>Pressure transmitters</b>  VEGAWELL 51 VEGAWELL 52 VEGABOX 02
<i>Applicant</i>	<b>VEGA GRIESHABER KG</b> Am Hohenstein 113, D-77761 Schiltach GERMANY
<i>Manufacturer Place of manufacture</i>	<b>VEGA GRIESHABER KG</b> Am Hohenstein 113, D-77761 Schiltach GERMANY
<i>Reference standards</i>	<b>Rules for the classification of ships.- Part C - Machinery, systems and fire protection. - Ch.3, Sect. 6, Table 1.</b>

Issued in **HAMBURG** on **July 2, 2018**. This Certificate is valid until **July 1, 2023**

  
RINA Services S.p.A.  
Giuseppe Russo

This certificate consists of this page and 1 enclosure



RINA Services S.p.A.  
Via Corsica, 12 - 16128 Genova  
Tel +39 010 53851  
Fax +39 010 5351000



## TYPE APPROVAL CERTIFICATE

No. ELE135718XG

Enclosure - Page 1 of 2

VEGAWELL 51

VEGAWELL 52

VEGABOX 02

### Product description:

VEGAWELL 51 and 52 suspension cable pressure transmitters with integrated temperature sensor for level and gauge measurement. The sensor element is a dry ceramic-capacitive measuring cell.

The hydrostatic pressure causes a capacitance change in the measuring cell, via the ceramic diaphragm.

VEGABOX 02 Connection box: Breather housing for pressure transmitters with connection cable with integrated capillary tube, with or without temperature transmitter for PT100

### WL 51/ 52 - a M b c d e f g h i j k

- a= Approval (note 1)  
X without Ex - Approval  
A...Z in combination with Ex Approval for use in hazardous atmospheres
- bc= Process fittings  
AA/ A1...ZZ / Z9 without straining clamp, screw connection, housing with cable locking
- d= Material Suspension cable  
B FEP  
D PUR  
P PA
- e= Total length  
T customer specific
- f= Transmitter Material / Diameter  
A...Z Stainless Steel, PVDF, Titan;  
22 mm resp. 32 mm
- g= Measuring cell seal  
1...9/A...Z FKM, FFKM, EPDM
- h= Pressure / measuring range  
A...Z gauge pressure max. 25 bar  
1...9 absolute pressure max. 25 bar  
(VEGAWELL 52 up to 60 bar max)
- i= Electronics  
D 4...20mA / HART +PT100, 4 wire  
C 4...20mA 2 wire
- j= Accuracy class:  
1 0.20%; 2 0.10%
- k= Transmitter Option:  
w without,  
v with impact protection

### BOX 02 - a M b c d

- a= Approval (note 1)  
X without Ex - Approval  
A...Z in combination with Ex Approval for use in hazardous atmospheres
- b= Function  
A Equalisation  
C Equalisation and temperature transmitter 4...20mA / HART
- c= Protection cap  
X with  
W without
- d= Label  
X without  
V made of Stainless Steel  
F of foil, laser marking

Note 1: For use in hazardous area the requirement / instruction of the relevant safety certificates must be taken into consideration.

### Safety references:

VEGAWELL 51/52 type VEGA WELLS 51/52 A\*\*\*\*\*C/D\*

Certificate: TUV 06 ATEX 553449 X 3. Supplement

Marking: II 1 G or II 2 G Ex ia IIC T6 Gb, Gb

### VEGABOX 02 BOX 02.C. \*\*\*

Certificate: TUV 07 ATEX 553685 X

Marking: II 1 G or II 2 G Ex ia IIC T6 Gb, Gb



RIWA Services S.p.A.  
Via Corsica, 12 - 16128 Genova  
Tel +39 010 53851  
Fax +39 010 5351000

**TYPE APPROVAL CERTIFICATE**

No. ELE135718XG

Enclosure - Page 2 of 2

VEGAWELL 51

VEGAWELL 52

VEGABOX 02

**Documents:**

Operating Instructions: - 35401-EN-180523; 35402-EN-180523; 36785-EN-180523; 42240-EN-131108  
Safety Instructions: - VEGAWELL WL51 /52.A \*\*\*\*\*C/D\* and VEGABOX 02 BOX 02.C\_\*\*\*.

**Test reports:**

Paconsult: - 07-1587 dated 24/05/2007; 07-1650 dated 06/08/2007;  
Hanse Control: - 07-L-00339-01 / 02 dated 20-23/04/2007; 07-L-00954-01 dated 21/07/2007;  
- 07-L-00956-01 dated 26/07/2007; 08-L-00256-01 dated 27/02/2008  
VEGA Grieshaber: - 2-03\_WELL51-F1\_1 dated 27/02/08; 1-03-WELL52-PVDF\_F1\_1 dated 10/12/07;  
- 1-4-WELL-PVDF\_F1\_1 dated 10/12/07

**Remarks:**

This certificate annuls and replaces the previous one n° ELE119013XG.

HAMBURG July 02, 2018



*For Rina*

RINA Services S.p.A.  
Via Corsica, 12 - 19128 Genova  
Tel +39 010 53851  
Fax +39 010 5351000





Marine & Offshore

Certificate number: 20879/C0 BV

File number: AP3944

Product code: 3891H

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

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**VEGA Grieshaber KG**

Schiltach - GERMANY

*for the type of product*

**PRESSURE TRANSMITTERS / TRANSDUCERS**

VEGAWELL 51/52 and VEGABOX 02/03

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31 / 41S.

*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: 11 Dec 2023**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 11 Dec 2018,

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/veristarnb/jsp/viewPublicPdfType.jsp?id=nhqaeqj7m>  
BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)



## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

VEGAWELL 51/52 Pressure Transmitters and VEGABOX 02/03 are intended to measure liquid levels in tanks.

#### **1.1 - Main Characteristics:**

Measuring Range: Max = 25bar gauge / absolute (up to 60bar in absolute)  
 Ambient Temperature: Depending on Ex category and / or connection cable type  
 Process Fitting: Depending on type  
 Power Supply: 24V DC  
 Output Signal: 2/4 wire - 4-20 mA / HART + Pt100 (depending on electronic type)  
 Ingress Protection Index: IP 68 (25bar for Pressure Transmitter, 1 bar for Terminal Box)  
 Firmware Version: 1.12.xx (4-20mA/HART); 1.04.xx (4-20mA)

#### **1.2 - Type designation:**

VEGAWELL

WLS1/52 a M b c d e f g h i

a = Ex approval or not  
 b = Process fitting  
 c = Material suspension cable  
 d = Total length  
 e = Material sensor housing  
 g = Measuring cell seal  
 h = Measuring range  
 i = Electronics

VEGABOX

BOX 02 a M b c d

a = Ex approval or not  
 b = Function  
 c = Protection cap  
 d = Label

BOX 03 a b c d e f

a = Scope: A, I, C, R, G, B  
 b = Approval: M, O  
 c = Version: A  
 d = Housing: K, A, V  
 e = Degree of protection: I, N  
 f = Cable entry: M, S, T, K, U, V, L, O, D, N, J, P  
 g = Mounting: A, C, D, E

### 2. DOCUMENTS AND DRAWINGS:

- CD ROM, Level Measurement - Switching - Pressure Products (2006/07).
- Safety instructions 32895, 32896, 27711; Operating Instruction 32798-EN-080206
- Drawings: GE 2472, GE 1825, ZG2847, GE23xx, SB10xx/11xx/12xx
- TÜV 07ATEX 553685 X dated 16.05.2007; TÜV 06 ATEX 553449 X 3.Ergänzung dated 08.05.2012
- BVS 08 ATEX E 032 X dated 14.07.2008
- For C0 version:
- Operating instructions 35401-EN-180523, 35402-EN-180523, 36785-EN-180523, 45925-EN-170202
- Safety instruction 42240-EN-131108, 47899-EN-140513
- TÜV 13 ATEX 7478 X dated

### 3. TEST REPORTS:

- paconsult GmbH: 355-04 dated May 13th, 2004; 07-1587 Rev.1 dated Sept. 2nd, 2008; 07-1650 dated Aug. 06th, 2007
- Hanse control: 07-L-00339-01 dated 20 April 2007; 07-L-00339-02 dated 23 April 2007; 07-L-00954-01 dated 21 July 2007
- 07-L-00956-01 dated 26 July 2007; 08-L-00256-01 dated 27 February 2008.
- EMV Services: 04/4080-2-1 dated August 06th, 2004; 04/4080-3-1 dated August 06th, 2004.
- AUCOTEAM: 2813/97 dated 27.11.1997
- VEGA: VZW0407 undated; WELL 52-PVDF, In-house IP and Pressure Tests dated 10.12.07.
- For C0 version:
- paconsult GmbH: 14-5756 dated 20. March 2014; 18-10723C Rev.1 dated Nov 12, 2018

#### **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 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zone and Deck Zone.
- 4.4 - Bureau Veritas Environmental Category, **EC Code: 31 / 41S**.
- 4.5 - Only Hardware and Firmware / Software 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.

#### **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 recognised 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**

- 5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

#### **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

#### **7. OTHERS:**

- 7.1 - It is the responsibility of **VEGA Grieshaber KG - GERMANY** 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° 20879/B1 BV issued on 25 Jun 2015 by the Society.

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

**РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА  
RUSSIAN MARITIME REGISTER OF SHIPPING**

Стр. 1 / 2  
Page.

6.8.3



**СВИДЕТЕЛЬСТВО О ТИПОВОМ ОДОБРЕНИИ  
TYPE APPROVAL CERTIFICATE**

Изготовитель  
Manufacturer

**VEGA Grieshaber KG  
(DE143 030 199)**

Адрес  
Address

**Am Hohenstein 113, 77761 Schiltach, Germany.**

Изделие\*  
Product\*

**Преобразователи давления типа VEGAWELL: WL52 .**

**Pressure transmitters of VEGAWELL type: WL52.**

Код номенклатуры  
Code of nomenclature

**15110102**

На основании освидетельствования и проведенных испытаний удостоверяется, что вышеупомянутое(ые) изделие(я) удовлетворяет(ют) требованиям Российского морского регистра судоходства.

This is to certify that on the basis of the survey and tests carried out the above mentioned item(s) complies(ly) with the requirements of Russian Maritime Register of Shipping.

Часть XV Автоматизация "Правил классификации и постройки морских судов" (2018); Раздел 12 Части IV "Правил технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов" (2018)

Part XV Automation of "Rules for the Classification and construction of Sea-Going Ships" (2018); Section 12 of part IV of the "Rules for technical supervision during construction of ships and manufacture of materials and products for ships" (2018)

Настоящее Свидетельство о типовом одобрении действительно до **08.10.2023**  
This Type Approval Certificate is valid until

Настоящее Свидетельство о типовом одобрении теряет силу в случаях, установленных в Правилах технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов.

This Type Approval Certificate becomes invalid in cases stipulated in Rules for the Technical Supervision during Construction of Ships and Manufacture of Materials and Products.

Дата выдачи  
Date of issue

**08.10.2018**

№ **18.40030.250**

Российский морской регистр судоходства  
Russian Maritime Register of Shipping



Подпись  
(signature)

**Морозов В.В. / V.Morozov**

( фамилия, инициалы )  
name

\*Дополнительную информацию см. на обороте.  
Additional information see overleaf.



Технические данные  
Technical data

Давление / диапазон измерения, кПа:	0...6000
Напряжение питания, В :	24 постоянного тока;
Рабочая температура, °C	от минус 40 до плюс 80
Выходной сигнал:	4...20 mA; 4...20 mA/HART +PT100
Маркировка взрывозащиты:	ATEX: II 1G, 2G Ex ia IIC T6 Ga, Gb ;
Степень защиты:	IP68 (3000кПа).
Pressure/ measuring range, kPa:	0...6000;
Supply voltage, V	24 DC;
Operating temperature, °C	from -40 to +80;
Output signal:	4...20 mA; 4...20 mA/HART +PT100
Explosion protection:	ATEX: II 1G, 2G Ex ia IIC T6 Ga, Gb ;
Degree of protection:	IP68 (3000kPa).

Техническая документация и дата ее одобрения Российским морским регистром судоходства  
Technical documentation and the date of its approval by Russian Maritime Register of Shipping  
Техническая документация одобрена письмом № 250-A-3085-274980 от 08.10.2018.

Technical documentation was approved by RS letter No. 250-A-3085-274980 of 08.10.2018.

Образец изделия испытан под техническим наблюдением Российского морского регистра судоходства.  
Product's specimen has been tested under the technical supervision of Russian Maritime Register of Shipping.

Акт № 18.60062.250 от 08.10.2018  
Report No. of

Область применения и ограничения  
Application and limitations

Преобразователи давления типа VEGAWELL: WL52 предназначены для использования на морских судах, плавучих сооружениях, стационарных платформах.  
Pressure transmitters of VEGAWELL type: WL52 are intended for using on sea-going ships, floating constructions and fixed offshore platforms.

Вид документа, выдаваемого на изделие  
Type of document issued for product

Изделие должно поставляться с копией настоящего Свидетельства о типовом одобрении.

The product shall be delivered with a copy of this Type Approval Certificate.



06/2015

18.40030.250

РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА  
RUSSIAN MARITIME REGISTER OF SHIPPING

6.8.3



**СВИДЕТЕЛЬСТВО О ТИПОВОМ ОДОБРЕНИИ**  
**TYPE APPROVAL CERTIFICATE**

Изготовитель  
Manufacturer **VEGA AMERICAS, INC.**

Адрес  
Address **4241 Allendorf Dr., Cincinnati, OH 45209, USA**

Изделие\*  
Product\*

**Преобразователи давления типа VEGAWELL: WL52.**  
**Pressure transmitters of VEGAWELL type: WL52.**

Код номенклатуры  
Code of nomenclature **15110102**

На основании освидетельствования и проведенных испытаний удостоверяется, что вышеупомянутое(ые) изделие(я) удовлетворяет(ют) требованиям Российского морского регистра судоходства.  
This is to certify that on the basis of the survey and tests carried out the above mentioned item(s) complies(ly) with the requirements of Russian Maritime Register of Shipping.

*ч. XV "Правил классификации и постройки морских судов" (2015), раздела 12, ч. IV "Правил технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов" (2014);* *p. XV of the Rules for the classification and construction of sea-going ships (2015), section 12, p. IV of the "Rules for technical supervision during construction of ships and manufacture of materials and products for ships" (2014).*

Настоящее Свидетельство о типовом одобрении действительно до **15.06.2019**  
This Type Approval Certificate is valid until

Настоящее Свидетельство о типовом одобрении теряет силу в случаях, установленных в Правилах технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов.

This Type Approval Certificate becomes invalid in cases stipulated in Rules for the Technical Supervision during Construction of Ships and Manufacture of Shipboard Materials and Products.

Дата выдачи  
Date of issue **15.06.2015**

№ **15.09133.381**

Российский морской регистр судоходства  
Russian Maritime Register of Shipping

М.П.  
L.S.

(подпись)  
signature

**В.А. Андреев/V. Andreev**  
(фамилия, имя, отчество)  
name

\*Дополнительную информацию смотри на обороте.  
Additional information see overleaf.

33792-EN-190214

## Технические данные Technical data

Давление / диапазон измерения, кПа: 0...2500  
 Напряжение питания, В: 24V DC;  
 Рабочая температура, °C: от минус 40 до плюс 80  
 Выходной сигнал: 4...20 мА; 4...20 мА/HART +PT100  
 Маркировка взрывозащиты: ATEX: II 1 G, 2G Ex ia IIC T6;  
 Степень защиты: IP68 (3000кПа).

Pressure/ measuring range, kPa: 0...2500;  
 Supply voltage, V: 24V DC;  
 Operating temperature, °C: from -20 to +80;  
 Output signal: 4...20 mA; 4...20 mA/HART +PT100  
 Explosion protection: ATEX: II 1G, 2G Ex ia IIC T6;  
 Degree of protection: IP68 (3000kPa).

Техническая документация и дата ее одобрения Российским морским регистром судоходства  
 Technical documentation and the date of its approval by Russian Maritime Register of Shipping

Техническая документация на преобразователи давления типа VEGAWELL: WL52 одобрена письмом  
 No. 317-09-132710 от 09.07.2013.  
 Technical Documentation for Pressure transmitters of VEGAWELL type: WL52 has been approved by letter  
 No. 317-09-132710 dd 09.07.2013.

Образец изделия испытан под техническим наблюдением Российского морского регистра судоходства.  
 Product's specimen has been tested under the technical supervision of Russian Maritime Register of Shipping.

Акт № 15.00073.268 от 21.05.2015  
 Report No. of

Область применения и ограничения  
 Application and limitations

Преобразователи давления типа VEGAWELL: WL52 предназначены для использования на морских  
 судах, плавучих сооружениях, стационарных платформах.  
 Pressure transmitters of VEGAWELL type: WL52 are intended for using on sea-going ships, floating  
 constructions and fixed offshore platforms.

Вид документа, выдаваемого на изделие  
 Type of document issued for product

Изделия должны поставляться с копией настоящего СТО (ф. 6.8.3).  
 The products shall be delivered with a copy of present Type Approval Certificate (f. 6.8.3).

02/2015

15.09133.381



NIPPON KAIJI KYOKAI

**TYPE APPROVAL CERTIFICATE  
FOR LIQUID LEVEL GAUGE / HIGH LEVEL ALARM**

Certificate No. TA18056M

**This is to certify** that the undernoted product(s) has/have been approved in accordance with the requirements specified in the Chapter 7, Part 6 and Chapter 4, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	<b>VEGA Grieshaber KG</b>
Place of Manufacturing:	<b>Am Hohenstein 113, 77761 Schiltach, Germany</b>
Product description:	<b>Pressure type level gauge</b>
Model:	<b>VEGAWELL 52.*M*****</b>

Approval No.:	<b>13LG001</b>
Valid until:	<b>5 February 2023</b>

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 31 January 2018.



**F. Taguchi**  
General Manager  
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

## NIPPON KAIJI KYOKAI

Attached sheet -1/3 to the Certificate No. TA18056M

### Specification & documents:

#### 1. Ratings:

Power supply: DC 24V

Measuring ranges: +10 ~ +2500 kPa

Ambient temperature: -20 ~ 80°C

Detail of Model:

(1) VEGAWELL WL52.aM bc d e f g h i

a = Approval

X without Ex – Approval

A...Z in combination with EX – Approval for use in hazardous atmospheres

bc = process fitting

AA / A1 ~ ZZ / Z9 without, straining clamp, screwed connection, housing with cable locking

d = material of suspension cable

B FEP

D PUR

e = Total length

T individually selectable length (PUR/FEP)

f = material sensor housing

A ~ Z Stainless Steel, PVDF, Titan

g = Measuring cell seal

1 FKM

3 EPDM

P FFKM

h = Pressure / measuring range

A ~ G rel. max 1000kPa

2 ~ 3 abs. max 500kPa

i = Electronics

C = 4 ~ 20mA

D = 4 ~ 20mA / HART + Pt100, 4-wire

- To be continued -

## NIPPON KAIJI KYOKAI

Attached sheet -2/3 to the Certificate No. TA18056M

## (2) VEGABOX BOX 02. aM b c d

a = Approval

X without Ex – Approval

A...Z in combination with EX – Approval for use in hazardous atmospheres

b = Function

A Equalization

C Equalization and temperature Transmitter 4 ~ 20ma / HART

c = protection cap

X with

W without

d = Label

X without

V made of Stainless Steel

## 2. Components and reference drawings:

VEGAWELL 52 – 34733-EN-111227, VEGAWELL 52 – 34734-EN-111227, GE2788, GE2472, GE1825, ZG2847, ZG2848-1 02, GE2330 01, GE2380 02, GE2336 01, GE2337 01, GE2326 01, GE2356, GE2372, GE2378, GE2379, GE2381, BS 77, SB1010 02, SB1012 02, SB1084 09, SB1150, SB1269-1-00-0, SB1277-1-04-0, SB1284-1-03-0, Quality- and test plan for VEGAWELL52

## 3. Documentation and Test Reports:

Test Report:

Paconsult No. 355-04, 07-1587, 07-1650, 08-1923

EMV Services No. 04 / 4080-2-1, 04 / 4080-3-1

hansecontrol No. 07-L-00339-01, 07-L-00339-02, 07-L-00954-01, 07-L-00956-01, 08-L-00256-01

Aucoteam No. 2813 / 97

Vega No. 2-03\_WELL 51\_F1\_1, 1-03-WELL52-PVDF\_F1\_1, 1-4WELL52-PVDF\_F1\_1,  
VZW0407

Additional documents:

Datasheet for fire resistance SOLEF 6010 / 0000

TÜV 06 ATEX 553449 X

TÜV 07 ATEX 553685 X

Operating Instructions VEGAWELL 51 (32465-EN-080604)

- To be continued -

## NIPPON KAIJI KYOKAI

Attached sheet -3/3 to the Certificate No. TA18056M

### Test items & approval conditions:

1. Test items: (Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature $85^{\circ}\text{C} \times 16$ hours)		X
Damp heat test		X
Vibration test (Acceleration $\pm 0.7\text{g} \times 1.5$ hours)		X
Inclination test		--
Cold test (Temperature $-40^{\circ}\text{C} \times 16$ hours)		X
Salt mist test		X
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Mechanical test for float		X
Flame retardant test		--

### 2. Approval condition:

- (1) The product is to be applied for F.O. tank, L.O. tank, Water tank and etc. (except for Cargo tank).  
 (2) The following tests for individual products are to be carried out at the manufacturing plant combined with proper barriers and level indicating equipment.

(a) Visual Inspection (b) Performance Test (c) High Voltage Test (d) Insulation Test

Note : The equipment containing circuits in which electronic apparatus could be removed at the test of (c) and (d).

- The End -



# TYPE APPROVAL CERTIFICATE

**Certificate No.** : HMB21504-AE005 **Initial Approval** : 30th January, 2019  
**Product** : Level Transmitter  
**Manufacturer** : VEGA Grieshaber KG  
 Am Hohenstein 113, 77761 Schiltach, Germany  
**Product Description** : Type : VEGAWELL 52 and VEGABOX 02/03  
 " See Appendix 1 "

**Approval Condition** : " See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification of Steel Ships.

This Certificate is valid until 29th January, 2024

Issued at Busan, Korea on 30th January, 2019



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "http://e-cert.krs.co.kr" by using the tracking No (ME19001696031) and certificate No.(HMB21504-AE005).



KOREAN REGISTER OF SHIPPING

*Jung Eun. Kim*

General Manager of  
Marine & Ocean Equipment Team

*Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or in the Rules of this Society.  
 2. This certificate will be invalid from the expiry date if mentioned unless the extension or renewal has been granted to the applicant or the manufacturer.  
 3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.  
 4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.*



## Appendix 1

### Product Description and/or Approval Condition

Certificate No : HMB21504-AE005

Date of Issue : 30th January, 2019

#### A. Product Description

##### 1. Product Specification

- 1) System Description (Type : VEGAWELL 52 and VEGABOX 02/03)

VEGAWELL 52 is suitable for continuous level measurement of liquids.  
VEGABOX 02/03 is connection box for transmitter.

- Power supply : 24 V DC
- Max. measuring range : 25 bar gauge / 60 bar absolute
- Process temperature : Depending on connection cable type
- Ex-proof grade : II 1 G or II 2 G Ex ia IIC T6
- Firmware Version : 1.12.xx (4-20mA/HART); 1.04.xx (4-20mA)

- 2) Type designation VEGAWELL 52 : VEGAWELL 52 aM bc d e f g h i

a = Approval

X without Ex-Approval, A-Z in combination with Ex-Approval

bc = Process fitting

AA/A1-ZZ/Z9 without, straining clamp, screwed connection,  
housing with cable locking

d = Material of suspension cable : B FEP, D PUR

e = Total length

f = Material sensor housing

A-Z Stainless Steel, PVDF, Titan

g = Measuring cell seal

1/A-9/Z FKM, FFKM, EPDM, others

h = Pressure/measuring range

A-Z gauge max : 25 bar  
1-9 absolute pressure : 25 bar

i = Electronics

D 4-20mA / HART + Pt100, 4-wire  
C 4-20mA / 2-wire

- 3) Type designation VEGABOX 02 : VEGABOX 02 aM b c d

a = Approval

X without Ex-Approval, A-Z in combination with Ex-Approval

b = Function : A Pressure compensation

c = Pressure compensation and temperature transmitter 4-20mA / HART

C Protection cover, X without, W with

d = Identification label

X without,  
V of stainless steel, laser marking

- 4) Type designation VEGABOX 03 : VEGABOX 03 a bc d e f

a = Scope

A Europe, I Worldwide, C Canada, R Russia, G Kazakhstan, B Belarus

b = Approval

M Ship Approval

O ATEX II 1G, 2G, EX ia IIC T6 Ga, Gb + Ship Approval

c = Version : A Pressure compensation

d = Housing : K Plastic, A Aluminium, V Stainless Steel

## Appendix 1

### Product Description and/or Approval Condition

**Certificate No :** HMB21504-AE005

**Date of Issue :** 30th January, 2019

e = Degree of protection  
I IP66/IP68 NMEA 6P (0.2 bar)  
N IP66/IP67 NMEA 4x

f = Cable entry : M, S, T, K, U, V, L, O, D, N, J, P

g = Mounting  
A wall mounting with Aluminium or StSt housing  
D carrier rail with Aluminium of StSt housing  
E tube mounting (29-60mm) with mounting material

#### 2. Approved Drawings and Documents

- 1) Mechanical Drawings
  - VEGAWELL 52  
GE2472-E, GE1825, ZG2847, ZG2848-1 03, GE2330 02, GE2322, GE2336 01,  
GE2379, GE2380 02, GE2381
  - VEGABOX 02/03  
GE2356, GE2372, GE2378
- 2) Circuit Drawings
  - SB1269-1-00-0, SB1277-1-04-0, SB1284-1-03-0
- 3) Data sheet / Ex-proof Certificate
  - Operating instruction  
VEGAWELL 52 : 35401, 35402, 36785  
VEGABOX 02/03 : 32798, 45925
  - ATEX Certificate : TUV 06 ATEX 553449 X  
FM Approval : 3039829

#### 3. Test Reports, etc.

- 1) Environmental / EMC Test Report
  - Paconsult Test Report No. 07-1587, 07-1650, 08-1923, 14-5756
  - Hansecontrol GmbH Test Report  
No. 07-L-00339-01, 07-L-00339-02, 07-L-00954-01, 07-L-00956-01, 08-L-00256-01
- 2) Pressure Test Report
  - VEGA No. 1-04\_ WELL52\_F1\_1
- 4) IP Test Report
  - VEGA No. 1-03- WELL52-PVDF\_F1\_1
  - WELL72\_1.3\_F1\_1
  - QS-Auftrag DIS82

## B. Approval Condition

#### 1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- 2) The manufacturer should inform this Society of all kinds of revisions of the equipment including software. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- 3) Explosion-proof certification by a notified/recognized Certification Body is not covered by this certificate. Ratings and Special Condition for Safe Use in hazardous areas are to be obtained from the relevant valid Ex-Certificate.

#### 2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is not required.

#### 3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

Appendix 1

Product Description and/or Approval Condition

Certificate No : HMB21504-AE005

Date of Issue : 30th January, 2019

4. Others

1) Test condition

Test	Condition	Remark
EMC	All locations including the bridge and deck zone	-
Temperature	-40 ~ +80℃	-
Vibration	Acceleration ±0.7g	-
Degree of protection	IP68 for Transmitter IP68 for Vegabox	- -
Salt mist	Applied	-

< The End >



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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