

# Ship approvals and installation instructions

## VEGAPOINT 21, 23, 31

DNV GL TAA00002KA8

ABS 20-HG1953823\_PDA

LR2002418TA

CCS - HB20PTB00021-02

RINA - ELE035720XG

BV - 62920/A0 BV



Document ID: 63539



# VEGA

## Contents

1	Installation instruction .....	3
2	DNV GL.....	4
3	ABS.....	8
4	LR .....	12
5	CCS.....	18
6	RINA .....	22
7	BV .....	24

## 1 Installation instruction

VEGAPOINT 21, 23, 31 must be installed and operated in metallic containers.

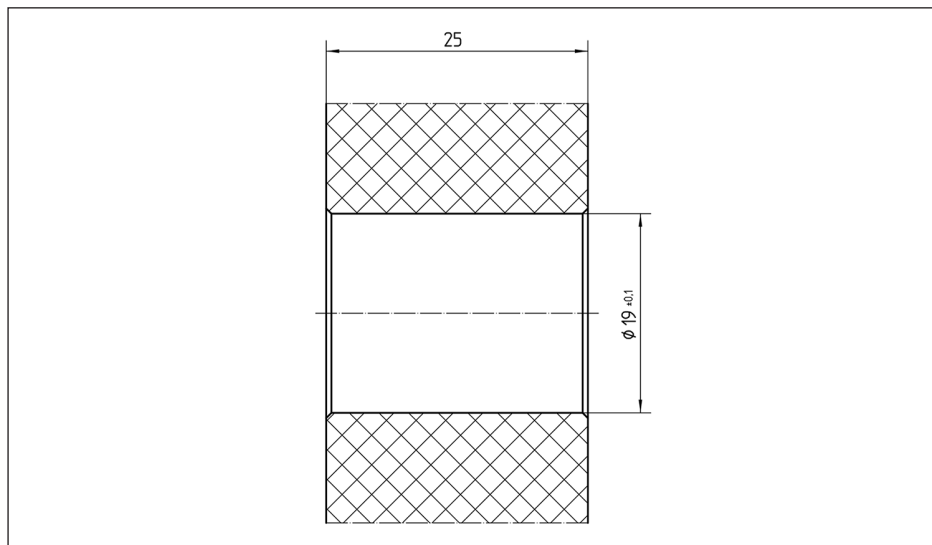
VEGAPOINT 21, 23, 31 must only be connected to controllers with appropriate ship approval and must not be powered directly from the on-board power supply.

VEGAPOINT 23 versions from a rod length of 251 mm must be guided according to the following table.

	Sensor length (from seal surface)	Einschränkungen
VEGAPOINT 21	Only one standard length available	None
VEGAPOINT 23	≤ 250 mm (9.84 in)	None
	251 ... 500 mm (9.85 ... 19.69 in)	Holding mechanism (acc. to drawing) at the end of the extension tube have to be used
	501 ... 1000 mm (19.7 ... 39.37 in)	Holding mechanism (acc. to drawing) in the middle of the extension tube have to be used
VEGAPOINT 31	Only one standard length available	None

### Holding mechanism

The rod guidance must correspond to the following drawing. The rod must not be clamped.



## 2 DNV GL

DNV·GL

Certificate No:  
**TAA00002K8**

# TYPE APPROVAL CERTIFICATE

### This is to certify:

That the **Level Switches**

with type designation(s)

**VEGAPOINT 21 (\*), VEGAPOINT 23 (\*), VEGAPOINT 31 (\*)**

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.**

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

Issued at **Hamburg** on **2020-01-30**

This Certificate is valid until **2025-01-29**.

DNV GL local station: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**



Digitally Signed By: Rinkel, Marco

for **DNV GL**

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

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.



## Product description

### VEGAPOINT 21 (\*), VEGAPOINT 31 (\*) - Variants / main features

1. Ventilation/pressure compensation
2. LED illuminated ring
3. Electronics (selectable)
  - Three-wire transistor
  - Three-wire transistor (including IO-Link)
4. Process fitting / Material (selectable)
  - Thread M24x1.5 PN25, DIN13 / 316L; EPDM
  - Thread G½ PN25, DIN3852-A / 316L
  - Thread G½ PN25, ISO228-1 / 316L (Ra<0.76µm); for ½" hygiene adapter
  - Thread ½NPT PN25, ASME B1.20.1 / 316L
  - Thread G¾ PN25, DIN3852-A / 316L
  - Thread ¾NPT PN25, ASME B1.20.1 / 316L
  - Thread G¾ PN25, ISO228-1 / 316L; for welded socket 21mm
  - Thread G¾ PN25, ISO228-1 / 316L; for welded socket 17mm
  - Thread G1 PN25, DIN3852-A / 316L
  - Thread G1 PN25, ISO228-1, hygiene design / 316L (Ra<0.76µm); EPDM; for hygiene adapter sealing with O-ring
  - Thread 1NPT PN25, ASME B1.20.1 / 316L
  - Thread G1 PN25, ISO228-1 / 316L; for welded socket 21mm
  - Thread G1 PN25, ISO228-1 / 316L; for welded socket 29mm
  - Thread G1 PN25, ISO228-1, cone 40° / 316L (Ra<0.76µm); for hygiene adapter metallically sealing
  - Clamp 1" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)
  - Clamp 1½" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)
  - Clamp 2" PN16, DIN32676, ISO2852 / 316L (Ra<0.76µm)
  - Collar connector DN25 PN25, DIN11851 / 316L (Ra<0.76µm)
  - Collar connector DN32 PN25, DIN11851 / 316L (Ra<0.76µm)
  - Collar connector DN40 PN25, DIN11851 / 316L (Ra<0.76µm)
5. Sensor
6. Tube
  - Only standard length available
7. Electrical connection / Protection (selectable)
  - 4-pole plug connection ISO4400 M16 / IP65
  - 4-pole plug connection with hinged lid ISO4400 M20 / IP65
  - 4-pole plug connection ISO4400 with QuickOn connection / IP67
  - M12x1 / IP66/67/69
  - M12x1 including 5m (approx. 16ft) cable / IP66/IP68 (0.2bar)

(\*) = Optional, one- or two-digit variable for production control

### Type VEGAPOINT 23 (\*) - Variants / main features

1. Ventilation/pressure compensation
2. LED illuminated ring
3. Electronics (selectable)
  - Three-wire transistor
  - Three-wire transistor (including IO-Link)
4. Process fitting / Material (selectable)
  - Thread G½ PN25, DIN3852-A / 316L
  - Thread ½NPT PN25, ASME B1.20.1 / 316L
  - Thread G¾ PN25, DIN3852-A / 316L
  - Thread ¾NPT PN25, ASME B1.20.1 / 316L
  - Thread G¾ PN25, ISO228-1 / 316L; for welded socket 21mm
  - Thread G¾ PN25, ISO228-1 / 316L; for welded socket 17mm
  - Thread G1 PN25, DIN3852-A / 316L
  - Thread G1 PN25, ISO228-1, hygiene design / 316L (Ra<0.76µm); EPDM; for hygiene adapter sealing with O-ring

Job Id: **262.1-031522-1**  
 Certificate No: **TAA00002K8**

- Thread 1NPT PN25, ASME B1.20.1 / 316L  
 Thread G1 PN25, ISO228-1 / 316L; for welded socket 21mm  
 Thread G1 PN25, ISO228-1 / 316L; for welded socket 29mm  
 Thread G1 PN25, ISO228-1, cone 40° / 316L (Ra<0.76µm);  
 for hygiene adapter metallically sealing  
 Clamp 1" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)  
 Clamp 1½" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)  
 Clamp 2" PN16, DIN32676, ISO2852 / 316L (Ra<0.76µm)  
 Collar connector DN25 PN25, DIN11851 / 316L (Ra<0.76µm)  
 Collar connector DN32 PN25, DIN11851 / 316L (Ra<0.76µm)  
 Collar connector DN40 PN25, DIN11851 / 316L (Ra<0.76µm)
5. Sensor
  6. Extension tube, length from seal surface (selectable)
    - 64 mm (appr. 2.9 inch)
    - 100 mm (appr. 3.9 inch)
    - 150 mm (approx. 5.9 inch)
    - 200 mm (approx. 7.9 inch)
    - 250 mm (approx. 9.8 inch)
    - 251...500 mm (9.85...19.69 in) individually selectable - with restriction<sup>(1)</sup>
    - 501...1000 mm (19.7...39.37 in) individually selectable - with restriction<sup>(2)</sup>
    - Restriction<sup>(1)</sup>: Holding mechanism at the end of the extension tube has to be used
    - Restriction<sup>(2)</sup>: Holding mechanism in the middle of the extension tube has to be used
    - Holding mechanism: A plastic or metal part according to drawing on page 3 in document 'Ship approvals and installation instructions VEGAPOINT 21, 23, 31 (Document-ID 63539)' must be used as holding mechanism
  7. Electrical connection / Protection (selectable)
    - 4-pole plug connection ISO4400 M16 / IP65
    - 4-pole plug connection with hinged lid ISO4400 M20 / IP65
    - 4-pole plug connection ISO4400 with QuickOn connection / IP67
    - M12x1 / IP66/67/69
    - M12x1 including 5m (approx. 16ft) cable / IP66/IP68 (0.2bar)
- (\*) = Optional, one- or two-digit variable for production control

## Approval conditions

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 classification of ships Pt.4 Ch.9 Control and monitoring systems.

## Type Approval documentation

Test reports: as the manufacturer's reference document VEGAZW-6-58564 rev. 3 (10.2 - Tests)  
 Technical documents: as the manufacturer's reference document VEGAZW-6-58564 rev. 3 (9 - Additional submitted documents)  
 Ship approvals and installation instructions VEGAPOINT 21, 23, 31 (Document-ID 63539)  
 Type approval assessment report issued at Augsburg on 2019-08-05

## Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.

## Marking of product

The products to be marked with:

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

Job Id: **262.1-031522-1**  
 Certificate No: **TAA00002K8**

## 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



CERTIFICATE NUMBER 20-HG1953823-PDA  
EFFECTIVE DATE 28-Feb-2020  
EXPIRY DATE 27-Feb-2025  
ABS TECHNICAL OFFICE Hamburg Engineering Department

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**VEGA GRIESHABER KG**

located at

**ZERTIFIKATSWESEN, AM HOHENSTEIN 113, D-77761 SCHILTACH  
, Germany**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

### Product Level Switch

**Model VEGAPOINT 21, VEGAPOINT 23, VEGAPOINT 31**

This Product Design Assessment (PDA) Certificate remains valid until 27/Feb/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

*Efstratios Maliatsos*  
Efstratios Maliatsos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Certificate of Product Design Assessment Rev.3  
of 1

Page 1

Sensitivity: Internal & Restricted

63539-EN-201029

**VEGA GRIESHABER KG**  
 ZERTIFIKATSWESSEN  
 AM HOHENSTEIN 113  
 D-77761 SCHILTACH  
 Germany  
 Telephone: 49-7-836-50-0  
 Fax: 49-7-836-50-8278  
 Email: a.reinberger@vega.com  
 Web: www.vega.com

## Tier: 2 - PDA Issued

**Product:** Level Switch  
**Model:** VEGAPOINT 21, VEGAPOINT 23, VEGAPOINT 31  
**Intended Service:**

Level detection in tanks on ACC, ACCU and ABCU Classed Vessels by means of frequency deviation method.

### Description:

VEGAPOINT 21: Capacitive level switch for level detection of water-based liquids, one standard sensor length available.

VEGAPOINT 23: Capacitive level switch for level detection of water-based liquids, various sensor lengths up to 1000mm.

VEGAPOINT 31: Capacitive level switch for level detection of fine-grained and powdery bulk solid, one standard sensor length available.

### Rating:

Operating voltage: 12 ... 35 V DC;

Process pressure: -1 ... 25 bar;

Process temperature: -40 ... +115 °C;

Ambient temperature: -40 ... +70 °C;

Three-wire Transistor output (PNP/NPN) with optional IO-Link;

IP66/IP67/IP68/IP69;

### Service Restriction:

1. 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.
2. The sensing devices are to be fitted with valves or arranged such that they may be isolated and removed without emptying tanks or without impairing the integrity of pressurized systems.
3. For Passenger Vessels, level switches are not to be installed on flammable oil tanks where they require tank wall penetration below the tank top.

### Comments:

1. Each particular application and installation is to be specifically approved in conjunction with the relevant systems and tank arrangements.
2. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
3. VEGAPOINT 21, 23, 31 must only be connected to controllers with appropriate ship approval and must not be powered directly from the on-board power supply.
4. VEGAPOINT 23: for lengths between 251mm L 500mm, holding mechanism at the end of the extension tube has to be used, for lengths between 501mm L 1000mm, holding mechanism in the middle of the extension tube has to be used. A plastic or metal part, according to drawing on page 3 in document: "Ship approvals and installation Instructions VEGAPOINT 21, 23, 31 (Document-ID 63539)" must be used as holding mechanism.

### Notes/Drawing/Documentation:

Drawing No. I-05 BAR38-2LEB\_N\_1\_Vibration-Sinus 1g\_Schiff\_Varivent, VEGA internal Vibration Test Report,

Revision: 1, Pages: 1

Drawing No. I-05 BAR38-2LEB\_N\_2\_Vibration-Sinus 1g\_Schiff\_clamp, VEGA internal Vibration Test Report,

Revision: 1, Pages: 1

Drawing No. I-05 POINT23\_F1\_1\_Vibration-Sinus 1g\_Schiff\_clamp, VEGA internal Vibration Test Report,

Revision: 1, Pages: 1

Drawing No. I-05 POINT23\_F1\_1\_Vibration-Sinus 1g\_Schiff\_lange Sensoren\_0,5m, VEGA internal Vibration Test

Report, Revision: 1, Pages: 1

Drawing No. 19-11203A, Vibration Climatic Test VEGAPOINT VEGABAR, Revision: 1, Pages: 1

Drawing No. 19-11203B, Salt Mist Test VEGAPOINT VEGABAR, Revision: 1, Pages: 1

**VEGA GRIESHABER KG**  
 ZERTIFIKATSWESSEN  
 AM HOHENSTEIN 113  
 D-77761 SCHILTACH  
 Germany  
 Telephone: 49-7-836-50-0  
 Fax: 49-7-836-50-8278  
 Email: a.reinberger@vega.com  
 Web: www.vega.com

#### Tier: 2 - PDA Issued

Drawing No. 1901-0178801R01, EMC Test Report, Revision: 1, Pages: 1  
 Drawing No. 1901-0178801R03, EMC Test Report, Revision: 1, Pages: 1  
 Drawing No. 1901-0178801R04, EMC Test Report, Revision: 1, Pages: 1  
 Drawing No. 63539, Ship approvals and installation instructions VEGAPOINT 21, 23, 31 (Initial version), Revision: 1, Pages: 1  
 Drawing No. 70213020, Hosedown Test, Revision: 1, Pages: 1  
 Drawing No. CB 153857-70218322, Test Report IEC 61010-1, Revision: 1, Pages: 1  
 Drawing No. Duranex 457EV, Datasheet, Revision: 1, Pages: 1  
 Drawing No. EPDM 70 10-02, Datasheet, Revision: 1, Pages: 1  
 Drawing No. FKM 70 16-06, Datasheet, Revision: 1, Pages: 1  
 Drawing No. GE4098, POINT21\_31 overview device setup, Revision: 1, Pages: 1  
 Drawing No. GE4151, POINT23 overview device setup up to 250mm, Revision: 1, Pages: 1  
 Drawing No. GE4152, POINT23 overview device setup 250mm and more, Revision: 1, Pages: 1  
 Drawing No. GE4222, POINT 21 31 ship process connection, Revision: 1, Pages: 1  
 Drawing No. GE4223, POINT 23 ship process connection, Revision: 1, Pages: 1  
 Drawing No. GE4226, Ring ø19 inside, Revision: 1, Pages: 1  
 Drawing No. KetronPEEK\_LSG D\_PDS\_0306, Datasheet, Revision: 1, Pages: 1  
 Drawing No. LEXAN 920, Datasheet, Revision: 1, Pages: 1  
 Drawing No. LEXAN 923A, Datasheet, Revision: 1, Pages: 1  
 Drawing No. LEXAN 925AU, Datasheet, Revision: 1, Pages: 1  
 Drawing No. LEXAN 925U, Datasheet, Revision: 1, Pages: 1  
 Drawing No. LUPOX HI1006FA, Datasheet, Revision: 1, Pages: 1  
 Drawing No. NBR P-584-RF, Datasheet, Revision: 1, Pages: 1  
 Drawing No. PBE Plastic M 6 x 0,75 1x087506G2TL7 EZM, Datasheet, Revision: 1, Pages: 1  
 Drawing No. PETERS elpeguard sl 1307, Datasheet, Revision: 1, Pages: 1  
 Drawing No. QA\_BAR2x 3x POINT23\_Vibrationtest-ship\_Clamp\_Varivent\_Test order, VEGA internal Vibration Test Report, Revision: 1, Pages: 1  
 Drawing No. SB1542, Schematic IMP20-3L(B), Revision: 1, Pages: 1  
 Drawing No. SB1544, Schematic IMP20-3L-M, Revision: 1, Pages: 1  
 Drawing No. SB1545, Schematic IMP20-3L-V, Revision: 1, Pages: 1  
 Drawing No. SB1554, Schematic IMP20-SENS, Revision: 1, Pages: 1  
 Drawing No. SB1591, Schematic IMP20-SVAR, Revision: 1, Pages: 1  
 Drawing No. SB1592, Schematic IMP20-S64, Revision: 1, Pages: 1  
 Drawing No. SB1593, Schematic IMP20-S100, Revision: 1, Pages: 1  
 Drawing No. SB1594, Schematic IMP20-S150, Revision: 1, Pages: 1  
 Drawing No. SB1595, Schematic IMP20-S200, Revision: 1, Pages: 1  
 Drawing No. SB1596, Schematic IMP20-S250, Revision: 1, Pages: 1  
 Drawing No. SB1609, Schematic IMP20-S64A, Revision: 1, Pages: 1  
 Drawing No. SB1610, Schematic IMP20-S100A, Revision: 1, Pages: 1  
 Drawing No. SB1611, Schematic IMP20-S150A, Revision: 1, Pages: 1  
 Drawing No. SB1612, Schematic IMP20-S200A, Revision: 1, Pages: 1  
 Drawing No. SB1613, Schematic IMP20-S250A, Revision: 1, Pages: 1  
 Drawing No. Test Report No 5-I POINT21-3L-PNP\_F1\_1, VEGA internal Radio-shielding, radiated emissions Test Report, Revision: 1, Pages: 1  
 Drawing No. VA04-11, Identification of the software version, Revision: 1, Pages: 1  
 Drawing No. VALOX 357XU, Datasheet, Revision: 1, Pages: 1  
 Drawing No. VEGAPOINT 21 PNP NC IO-LINK TestReport, VEGA internal IO-LINK Test Report, Revision: 1, Pages: 1  
 Drawing No. VEGAPOINT 21 PNP NO IO-LINK TestReport, VEGA internal IO-LINK Test Report, Revision: 1, Pages: 1  
 Drawing No. VEGAPOINT 23 NPN NO IO-LINK TestReport, VEGA internal IO-LINK Test Report, Revision: 1, Pages: 1

**VEGA GRIESHABER KG**  
 ZERTIFIKATSWESSEN  
 AM HOHENSTEIN 113  
 D-77761 SCHILTACH  
 Germany  
 Telephone: 49-7-836-50-0  
 Fax: 49-7-836-50-8278  
 Email: a.reinberger@vega.com  
 Web: www.vega.com

## Tier: 2 - PDA Issued

Drawing No. VEGAPOINT 31 NPN NC IO-LINK TestReport, VEGA internal IO-LINK Test Report, Revision: 1, Pages: 1  
 Drawing No. VEGAZW-6-58779, Technical description, Revision: 1, Pages: 1  
 Drawing No. VICTREX\_PEEK\_450G, Datasheet, Revision: 1, Pages: 1

### Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 27/Feb/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

### STANDARDS

#### ABS Rules:

2020 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/9.11.3, 4-6-4/11.7, 4-6-4/13.5.6(d), 4.6.4/15.3.4(d), 4-8-3/1.7, 4-8-3/1.11, 4-8-3/1.13, 4-8-3/1.17.1, 4-9-9/13.1, 4-9-9/Table 1  
 2020 Mobile Offshore Units Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-3/3.7, 4-2-4/13.7.6, 4-3-1/11, 4-3-1/15, 4-3-1/17.1

#### National:

NA

#### International:

NA

#### Government:

NA

#### EUMED:

NA

#### OTHERS:

NA



Page 1 of 1  
 Certificate No: LR2002418TA  
 Issue Date: 14.04.2020  
 Expiry Date: 13.04.2025  
 Reference: HTS/ETS 39782-20 /TW

**LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT**  
**ISSUED BY: HAMBURG TECHNICAL SUPPORT OFFICE (HPC1962061)**  
**ISSUED TO: VEGA GRIESHABER KG, SCHILTACH, GERMANY**  
**FOR: LEVEL SWITCHES**  
**TYPES VEGAPOINT 21 (\*), VEGAPOINT 23 (\*), VEGAPOINT 31 (\*)**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 03 (July 2017) and this Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

Unnumbered	Application Checklist	09.05.2019
HPC1962010/38301-TW/MCG	Request for Marine Services – Type Approval	05.02.2020
HPC1862096	Production Quality Assessment Form	11.03.2019
VEGAZW-6-58959	VEGAPOINT 21 (*), VEGAPOINT 23 (*), VEGAPOINT 31 (*) Technical description incl. documentation, drawings and test reports listed in section 9 Rev. 01	24.01.2020

  
 Thorsten Wolff  
 Hamburg Technical Support Office  
 Lloyd's Register EMEA

Thorsten Wolff  
 Senior Specialist  
 Electrotechnical Systems  
 Hamburg Technical Support Office  
 Lloyd's Register EMEA  
 T +49 (0)40 34970010-267  
 E thorsten.wolff@lr.org

**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 Lloyd's Register Type Approval System Procedure.*

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.







Lloyd's  
Register

Page 1 of 2  
Certificate No: LR2002418TA  
Issue Date: 14/04/2020  
Expiry Date: 13/04/2025

## 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.

<b>Manufacturer</b>	<b>Vega Grieshaber KG</b>
<b>Address</b>	Am Hohenstein 113, Schiltach, 77761, Germany
<b>Type</b>	Switches - Level
<b>Description</b>	refer to the Appendix for details
<b>Trade Name</b>	VEGAPOINT 21 (*), VEGAPOINT 23 (*), VEGAPOINT 31 (*)
<b>Application</b>	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2, ENV3 and ENV5 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – March, 2019.
<b>Specified Standard</b>	Manufacturer's specification IACS Unified Requirements E10 (Rev.7, Oct 2018)
<b>Additional Tests</b>	Low temperature test (-40°C/16hrs)
<b>Other Conditions</b>	For VEGAPOINT 23 with tube lengths between 251 to 1000 mm the manufacturer's guideline "Ship approvals and installation instructions VEGAPOINT 21, 23, 31" is to be followed.

**Thorsten Wolff**  
Senior Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS,  
United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

TA01 1.0.0



Page 2 of 2  
 Certificate No: LR2002418TA  
 Issue Date: 14/04/2020  
 Expiry Date: 13/04/2025

## Type Approval Certificate

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. HTS/ETS 39782-20/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS,  
 United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

TA01 1.0.0



## Appendix

### Description

VEGAPOINT 21 (\*), VEGAPOINT 31 (\*) - Variants / main features

1. Ventilation/pressure compensation
2. LED illuminated ring
3. Electronics (selectable)
  - Three-wire transistor
  - Three-wire transistor (including IO-Link)
4. Process fitting / Material (selectable)
  - Thread M24x1.5 PN25, DIN13 / 316L; EPDM
  - Thread G½ PN25, DIN3852-A / 316L
  - Thread G½ PN25, ISO228-1 / 316L (Ra<0.76µm); for ½" hygiene adapter
  - Thread ½NPT PN25, ASME B1.20.1 / 316L
  - Thread G¾ PN25, DIN3852-A / 316L
  - Thread ¾NPT PN25, ASME B1.20.1 / 316L
  - Thread G¾ PN25, ISO228-1 / 316L; for welded socket 21mm
  - Thread G¾ PN25, ISO228-1 / 316L; for welded socket 17mm
  - Thread G1 PN25, DIN3852-A / 316L
  - Thread G1 PN25, ISO228-1, hygiene design / 316L (Ra<0.76µm); EPDM;
  - for hygiene adapter sealing with O-ring
  - Thread 1NPT PN25, ASME B1.20.1 / 316L
  - Thread G1 PN25, ISO228-1 / 316L; for welded socket 21mm
  - Thread G1 PN25, ISO228-1 / 316L; for welded socket 29mm
  - Thread G1 PN25, ISO228-1, cone 40° / 316L (Ra<0.76µm);
  - for hygiene adapter metallically sealing
  - Clamp 1" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)
  - Clamp 1½" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)
  - Clamp 2" PN16, DIN32676, ISO2852 / 316L (Ra<0.76µm)
  - Collar connector DN25 PN25, DIN11851 / 316L (Ra<0.76µm)
  - Collar connector DN32 PN25, DIN11851 / 316L (Ra<0.76µm)
  - Collar connector DN40 PN25, DIN11851 / 316L (Ra<0.76µm)
5. Sensor

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



6. Tube  
Only standard length available  
7. Electrical connection / Protection (selectable)  
4-pole plug connection ISO4400 M16 / IP65  
4-pole plug connection with hinged lid ISO4400 M20 / IP65  
4-pole plug connection ISO4400 with QuickOn connection / IP67  
M12x1 / IP66/67/69  
M12x1 including 5m (approx. 16ft) cable / IP66/IP68 (0.2bar)  
(\*) = Optional, one- or two-digit variable for production control

#### VEGAPOINT 23 (\*) - Variants / main features

1. Ventilation/pressure compensation
2. LED illuminated ring
3. Electronics (selectable)  
Three-wire transistor  
Three-wire transistor (including IO-Link)
4. Process fitting / Material (selectable)  
Thread G $\frac{1}{2}$  PN25, DIN3852-A / 316L  
Thread  $\frac{1}{2}$ NPT PN25, ASME B1.20.1 / 316L  
Thread G $\frac{3}{4}$  PN25, DIN3852-A / 316L  
Thread  $\frac{3}{4}$ NPT PN25, ASME B1.20.1 / 316L  
Thread G $\frac{3}{4}$  PN25, ISO228-1 / 316L; for welded socket 21mm  
Thread G $\frac{3}{4}$  PN25, ISO228-1 / 316L; for welded socket 17mm  
Thread G1 PN25, DIN3852-A / 316L  
Thread G1 PN25, ISO228-1, hygiene design / 316L (Ra<0.76µm); EPDM; for hygiene adapter sealing with O-ring  
Thread 1NPT PN25, ASME B1.20.1 / 316L  
Thread G1 PN25, ISO228-1 / 316L; for welded socket 21mm  
Thread G1 PN25, ISO228-1 / 316L; for welded socket 29mm  
Thread G1 PN25, ISO228-1, cone 40° / 316L (Ra<0.76µm); for hygiene adapter metallically sealing  
Clamp 1" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)  
Clamp 1½" PN25 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.76µm)  
Clamp 2" PN16, DIN32676, ISO2852 / 316L (Ra<0.76µm)  
Collar connector DN25 PN25, DIN11851 / 316L (Ra<0.76µm)

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Collar connector DN32 PN25, DIN11851 / 316L (Ra<0.76µm)

Collar connector DN40 PN25, DIN11851 / 316L (Ra<0.76µm)

## 5. Sensor

### 6. Extension tube, length from seal surface (selectable)

64 mm (appr. 2.9 inch)

100 mm (appr. 3.9 inch)

150 mm (approx. 5.9 inch)

200 mm (approx. 7.9 inch)

250 mm (approx. 9.8 inch)

251...500 mm (9.85...19.69 in)

501...1000 mm (19.7...39.37 in)

### 7. Electrical connection / Protection (selectable)

4-pole plug connection ISO4400 M16 / IP65

4-pole plug connection with hinged lid ISO4400 M20 / IP65

4-pole plug connection ISO4400 with QuickOn connection / IP67

M12x1 / IP66/67/69

M12x1 including 5m (approx. 16ft) cable / IP66/IP68 (0.2bar)

(\*) = Optional, one- or two-digit variable for production control

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
HB20PTB00021\_02

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

位置开关传感器  
Level Switch Sensor  
传感器  
Sensor

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- 中国船级社《钢质海船入级规范》（2018）及其修改通报第4篇第1章  
Chapter 1, Part Four of China Classification Society Rules for Classification of Sea-Going Steel Ships 2018 and its Amendments
- 中国船级社《钢质海船入级规范》（2018）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 2018 and its Amendments

用于/Intended for

船舶与海上设施/Ships and Offshore Installations



证书有效期至/This Certificate is valid until 2023年04月01日/ Apr. 01, 2023

发证机构/中国船级社天津分社  
Issued by Tianjin Branch

签发日期 2020年06月18日  
Date Jun. 18, 2020

本证书根据中国船级社规范及相关规定签发，所有证书作为一个整体，必须同时使用。纸质证书与电子证书具有同等效力。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。有关方对证书的真实性有疑问时，可以向本社登记机构咨询。  
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 certificate 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 doubted 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:P020-24764089

产品明细/Product Description

传感器/Sensor (M0001)

名称/Name	属性 (值) /Value	单位/Unit
产品名称/Product Name	Capacitive sensor for point level detection in liquids & solids	
型号/Type	VEGAPOINT Series 21(*), 23(*), 31(*)	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No.: NP20PPP00879

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No.: 见附页 / 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.

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

证书编号/Certificate No. **HB20PTB00021\_02**

before and after the anniversary date which corresponds to the date of expiry of the relevant.

**备注/Remarks**

本证书基于原型式认可证书 (No. HB18PTB00002\_05) 变更, 原证书保持有效。

This Certificate is modified from the previous Type Approval Certificate No. HB18PTB00002\_05, the previous certificate remains valid.

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.

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	Capacitive sensor for point level detection in liquids & solids
Type	VEGAPOINT Series 21, 23, 31
Output Signal	Three wire with IO-Link (PNP/NPN)
Sensor length (from seal surface)	Only one standard length available (VEGAPOINT 21, 31) ≤ 250 mm (9.84 in) (VEGAPOINT 23) 252 ~ 500 mm (9.85 ~ 19.69 in) (VEGAPOINT 23) 501 ~ 1000 mm (19.7 ~ 39.37 in) (VEGAPOINT 23)

2. Approval Test Report

No	Test Report No.	Test Report Date	Laboratory / Address
1	1-4 POINT11 F1 1	2018.12.6	VEGA Grieshaber KG / Am Hohenstein 113, 77761 Schiltach, Germany
2	1-05 POINT23 F1 1	2019.12.11	
3	VEGAPOINT 21 PNP NC IO-LINK TestReport	2019.11.25	
4	VEGAPOINT 21 PNP NO IO-LINK TestReport	2019.11.25	
5	VEGAPOINT 23 NPN NO IO-LINK TestReport	2019.11.25	
6	VEGAPOINT 31 NPN NC IO-LINK TestReport	2019.11.27	PAConsult GmbH / Birkenau 3, 22087 Hamburg, Germany
7	19-11203A	2019.8.29	
8	19-11203B	2019.8.29	Hansecontrol Zertifizierungsgesellschaft GmbH / Schleidenstrasse 1, 22083 Hamburg, Germany
9	1901-0178801R01	2019.11.5	
10	1901-0178801R03	2019.11.7	
11	1901-0178801R04	2019.11.5	CSA Group Bayern GmbH / Ohmstrasse 1-4, 94342 Strasskirchen, Germany
12	C45446-00-00HG	2019-8-30	
13	CB 153857-70218322	2019-10-16	

TYPE APPROVAL CERTIFICATE  
 No. ELE035720XG

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</i>	<b>Capacitive level switches</b>
<i>Type</i>	<b>VEGAPOINT 21 (*), VEGAPOINT 23 (*), VEGAPOINT 31 (*)</b>
<i>Applicant</i>	<b>VEGA GRIESHABER KG Am Hohenstein 113 , D 77761 Schiltach GERMANY</b>
<i>Manufacturer</i>	<b>VEGA GRIESHABER KG</b>
<i>Place of manufacture</i>	<b>Am Hohenstein 113 , D 77761 Schiltach GERMANY</b>
<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 **June 26, 2020**. This Certificate is valid until **June 25, 2025**



RINA Services S.p.A.  
 Giuseppe Russo

This certificate consists of this page and 1 enclosure

**TYPE APPROVAL CERTIFICATE**

No. ELE035720XG

Enclosure - Page 1 of 1

**VEGAPOINT 21 (\*), VEGAPOINT 23 (\*), VEGAPOINT 31 (\*)****Description:**

VEGAPOINT series are a captive level switches for level detection of water-based liquids or of fine-grained and powdery bulk solids.

**Technical Data:**

Operating voltage: 12 V ... 35 V DC

Ambient Temperature: -40°C - +70°C

Process Temperature: -40°C - +115°C

Process Pressure: -1 bar - 25 bar

Output: Three-wire transistor output (PNP/NPN) with optional IO-link

Degree of Protection: IP66, IP67, IP68, IP69

(\*) - Optional, one- or two-digit variable for production control

**Restrictions:**

- For Passenger Vessels, level switches are not to be installed on flammable fluid tanks where they require tank wall penetration below the tank top.
- The sensing device is to be fitted with a valve or arranged such that they may be isolated and removed without emptying the tank or without impairing the integrity of pressurized system.

**Remarks:**

- Each particular application and installation is to be specifically approved in conjunction with the relevant systems and tank arrangements.
- VEGAPOINT 23: holding mechanisms are to be used according to manufacturer's installation instructions.

**Documentation:**

- VEGAZW-6-58872

**Test Reports:**

- 1-05, POINT23, F1, 1, Vibration-Sinus 1g
- 1901-0178801R01 EMC; 1901-0178801R03 EMC; 1901-0178801R04, EMC
- VEGAPOINT 21 PNP NC IO-LINK; VEGAPOINT 21 PNP NO IO-LINK; VEGAPOINT 23 NPN NO IO-LINK; VEGAPOINT 31 NPN NC IO-LINK

**HAMBURG June 26, 2020**

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



Marine & Offshore

Certificate number: 62920/A0 BV  
File number: AP4925  
Product code: 3840H

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

[www.veristar.com](http://www.veristar.com)

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*  
**VEGA Grieshaber KG**  
Schiltach - GERMANY  
*for the type of product*  
**LEVEL SWITCH**  
VEGAPOINT 21, 23, 31

**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: 26 Oct 2025**

**For Bureau Veritas Marine & Offshore,**  
At BV HAMBURG, on 26 Oct 2020,  
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](http://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=1161xn7h>  
BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

The VEGAPOINT 21 and 23 are capacitive level switches for level detection of water-based liquids. The VEGAPOINT 31 is a capacitive level switch for level detection of light/powdery bulk solids.

#### Main characteristics:

Process temperature: -40...115°C  
 Process pressure: -1...25bar  
 Power supply: 24V DC  
 Output signal: Plug M12x1: Transistor type with IO-Link; Valve Plug ISO4400: Transistor type  
 Housing material: Stainless steel and plastic (Valox)  
 Process fittings: Thread; Clamp; Collar connector  
 Extension tube: For VEGAPOINT 23: 64 mm to 250 mm; 251 mm to 500 mm; 501 mm to 1000 mm  
 Degree of protection: IP65/IP66/IP67/IP68/IP69 (depending on plug connection)

### 2. DOCUMENTS AND DRAWINGS:

- Operating/Installation Instructions: 56623-EN-191029 dated 2019-10-23; 56627-EN-191029 dated 2019-10-23; 62097-EN-191029 dated 2019-10-23; 62323-EN-191029 dated 2019-10-23; 62324-EN-191029 dated 2019-10-23; 62325-EN-191029 dated 2019-10-23; 63539-EN-200114 dated 2020-01-14  
 - Technical description: VEGAZW-6-58693 dated 2020-01-24  
 - Drawings: GE4098 dated 07.03.2019; GE4151 dated 06.05.2019; GE4152 dated 06.05.2019; GE4222 dated 04.12.2019; GE4223 dated 04.12.2019

### 3. TEST REPORTS:

- PAConcult: 19-11203A dated Aug 29, 2019; 19-11203B dated Aug 29, 2019  
 - Hansecontrol: 1901-0178801R01 dated 05.11.2019; 1901-0178801R03 dated 07.11.2019  
 - CSA Group: C45446-00-00HG dated 2019-08-30

### 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-JMS.  
 4.3 - Bureau Veritas Environmental Category, EC Code: 31 / 41S  
 4.4 - The equipment fulfils the EMC requirements for installation on the General Power Distribution and Deck Zone.  
 4.5 - For VEGAPOINT 23: Extension tube length from 251 mm to 500 mm with holding mechanism at the end of tube and from 501 mm to 1000 mm with holding mechanism in the middle of tube.  
 4.6 - The above products have been tested according to Bureau Veritas Rules dated Jan 2020.

### 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  
 77761 Schiltach  
 GERMANY

### 6. MARKING OF PRODUCT:

- Maker's name or trademark  
 - Equipment type or model identification  
 - Date of manufacture and/or serial number

### 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.

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

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfType.jsp?id=ill6ixdn7h>

BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)





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

© VEGA Grieshaber KG, Schiltach/Germany 2020

63539-EN-201029

VEGA Grieshaber KG  
Am Hohenstein 113  
77761 Schiltach  
Germany

Phone +49 7836 50-0  
Fax +49 7836 50-201  
E-mail: [info.de@vega.com](mailto:info.de@vega.com)  
[www.vega.com](http://www.vega.com)