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**

for **DNV GL**

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.

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

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(1)
   501…1000 mm (19.7…39.37 in) individually selectable - with restriction(2)
   Restriction(1): Holding mechanism at the end of the extension tube has to be used
   Restriction(2): 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

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

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