

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Transmitter

with type designation(s)
VEGAPULS 64...

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	D
Humidity	B
Vibration	A
EMC	B
Enclosure	C, D

Issued at **Hamburg** on **2017-10-26**

This Certificate is valid until **2022-10-25**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Dariusz Lesniewski**

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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.



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.

Product description

VEGAPULS : Radar Sensor for continuous level measuring

Type designation: VEGAPULS PS 64(*)**.a b c de f H X g h i X j**

a = **1-Digit alphanumeric Code for Scope: A** Europe, **I** Worldwide, **F** USA, **C** Canada and others

b = **1-Digit alphanumeric Code: M, O, Q** for Ship Approval and combination with different Ex -Approvals (Ex-proof certificates to be provided by the manufacturer)

c = **Antenna version / Second Line of Defense**

B	with plastic horn antenna/ without
D	with plastic horn antenna/ with
T	Thread with integrated horn antenna / without
U	Thread with integrated horn antenna / with
F	Flange with encapsulated antenna system / without
G	Flange with encapsulated antenna system / with
H	Hygienic fitting with encapsulated antenna system / without
I	Hygienic fitting with encapsulated antenna system / with

de = **Process fitting / Material**

2- Digit alphanumeric code for Flange, Thread, Bolting, Clamp and further standard process connections / 316L and equivalent Alloys

f = **Material / Seal / Process Temperature**

1 – Digit alphanumeric code for material / sealing and the thereby corresponding process temperature range:

A, B, C, D, E, F, G, H, I, J, K, L, P, Q, R, S, T, U, V, W, Y

*Minium process Temperature: -40 °C.

For lower temperatures see manufactirer's specification.

g = **housing**

K	Plastic-1- Chamber/ IP66/IP67
A	Aluminium-1- Chamber / IP66/IP68 (0,2bar)
H	Special Colour Aluminium-1-Chamber / IP66/IP68 (0,2bar)
3	Aluminium-1- Chamber / IP66/IP68 (1bar)
D	Aluminium-2-Chamber / IP66/IP68 (0,2bar)
S	Special Colour Aluminium-2-Chamber / IP66/IP68 (0,2bar)
4	Aluminium-2-Chamber / IP66/IP68 (1bar)
V	StSt-1- Chamber / IP66/IP68 (0,2bar)
5	StSt-1- Chamber / IP66/IP68 (1bar)
W	StSt-2-Chamber / IP66/IP68 (0,2bar)
R	Plastic-2-Chamber / IP66/IP67

h = **1-digit alphanumeric code for cable entry cable connection**

i = **X** without display/adjustment module
A with display/adjustment module PLICSCOM

Job Id: **262.1-002275-7**
Certificate No: **TAA00001FK**

F without display/adjustment module; lid with inspection window
B laterally mounted; with display/adjustment module PLICSCOM
K with display/adjustment module PLICSCOM; with Bluetooth; magnetic pen operation
L laterally mounted; with display/adjustment module PLICSCOM; with Bluetooth; magnetic pen operation

j = Additional certificates

X No
M Yes

Place of manufacture

VEGA Grieshaber KG	VEGA Americas, Inc.
Am Hohenstein 113	4241 Allendorf Drive
77761 Schiltach	Cincinnati, OH 45209
GERMANY	USA

Application/Limitation

For the PLICSCOM-module reference is made to the type approval certificate no. TAA000019V.
Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to DNV GL Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out

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

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

END OF CERTIFICATE