

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pressure Transmitter**with type designation(s)
VEGABAR12, VEGABAR14

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:**

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	B

Issued at **Hamburg** on **2018-02-15**This Certificate is valid until **2023-02-14**.DNV GL local station: **Augsburg**for **DNV GL**Approval Engineer: **Dariusz Lesniewski**

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

Model variants:

BAR12.M **a e c**

BAR14.M **a b c d**

a	Pressure / Measuring range
	1A ...Z9 absolute and relative pressure from 0...60 bar
b	Electrical connection / Protection
	A1 4-pole plug connection DIN 43650 resp. ISO 4400 A PG9 / IP 65 A2 4-pole plug hinged cover / IP 65 C1 direct cable outlet with 5m cable / IP 67 C2 direct cable outlet with cable / IP 68 (0.5 bar) M1 circular plug connection 4-pole, screwed plug M12 x 1/ IP65 M2 plug connection 4-pole M12x1 with 5m connection cable / IP 65 M3 circular plug connection 4-pole, screwed plug (drwg. MB3517) M12 x 1/ IP65 M4 circular plug connection 4-pole, screwed plug M12 x 1/ IP68
c	Process fitting / Material
	AA...ZZ several Tread connections
d	Seal measuring cell
	1...9 FKM, EPDM, FFKM
e	Electrical connection / Protection
	3-pole connection clamp / IP 20

Software: V1.xx

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.

Application/Limitation

Cable installation inside tank only.

Connection outside tanks has to be realized by the shortest possible cable length and not longer than 6m.

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)

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- 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