

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Flow Switch**

with type designation(s)
VH 500 NI, VH 500 NM

Issued to

SIKA Dr. Siebert & Kühn GmbH & Co. KG
Kaufungen, 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.

Type	Temperature	Humidity	Vibration	Enclosure ¹⁾
VH 500 NI	B	B	B	B
VH 500 NM	B	B	B	B

¹⁾ **IP54**

Issued at **Hamburg** on **2017-02-20**

This Certificate is valid until **2022-02-19**.

DNV GL local station: **Magdeburg**

for **DNV GL**

Approval Engineer: **Didier Girardin**

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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.



Product description

Water / oil flow detector / switch

Pipe Sizes	DN 25	DN 32	DN 40	DN 50
Paddle Segment	25x30	25x30	25x30	25x30
(mm)	---	25x38	25x38	25x38
	---	---	25x46	25x46
	---	---	---	25x58

Setpoint ranges: 1050 I/h up to 8500 I/h (in water)
Setpoint adjustable, tolerance +/- 15%

Connection: Direct mounting into pipe,
M33x2 (VH 500 NM), G1 (VH 500 NI)

Change-over contact:

Rating: 24 V DC 5 A (res. load), 4 A (react. load)
60 V DC 1 A (res. load), 0.5 A (react. load)
250 V AC 10 A (res. load), 10 A (react. load, pf 0.75)

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 Ships Pt.4 Ch.9 Control and Monitoring Systems.

Application/Limitation

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Nov 2016.

Marking of product

The products to be marked with:

- model name
- manufacturer name
- serial number

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