

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Temperature Sensor

with type designation(s)
W653P12021, W653P24021, W653P31021

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.

Temperature B

Humidity B

Vibration B

EMC N/A*

Enclosure Required protection according to DNV GL Rules shall be provided upon installation on board

*) Due to the nature of the equipment (passive resistors) EMC testing has not been performed.

Issued at **Hamburg** on **2018-08-30**

This Certificate is valid until **2023-08-29**.

DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Didier Girardin**

.....
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

Measuring range: -25°C ... +105 °C
Measuring insert: 1 x Pt100, 2 x Pt100
1 x Pt1000, 2 x Pt1000
Class B and other special sensors
Material: Stainless steel 1.4571

Thread connection: M10x1

Application/Limitation

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 RU SHIP Pt. 4 Ch. 9 Sec. 1.

Type Approval documentation

Test report : Paconsult no. 08-1977 of 16.04.2008, SiKA Test Reports of 17.04.2008 and of 21.04.2008;

Tests carried out

Applicable Tests according to Class Guideline DNV GL CG-0339, November 2016

Marking of product

Maker, type, serial-number

Periodical assessment

The scope of the retention/renewal survey 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 survey 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