



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-11666**

This is to certify that the  
**Test and Calibration Equipment**

with type designation(s)  
**Temperature Calibrator**  
**TP17650, TP17650M and TP17650S;**  
**TP17165, TP17165M and TP17165S**

Manufactured by  
**Sika - Dr. Siebert & Kühn GmbH & Co. KG**  
**KAUFUNGEN HESSEN, Germany**

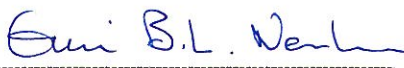
is found to comply with  
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application  
**The instruments are only approved as portable test instruments.**  
**Traceable calibration certificates are available from the manufacturer.**


Høvik, 2010-05-04  
for Det Norske Veritas AS



This Certificate is valid until  
**2014-06-30**

  
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**Odd Magne Nesvåg**  
**Head of Section**

DNV local office:  
**Essen**

  
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**Ståle Sneen**  
**Surveyor** *HLB020*

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.  
If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: A-11666  
File No.: 890.90  
Job Id.: 262.1-008938-1

## Product description

SIKA Temperature Calibrators comprising the following models:

Model	Calibration temperature range	Display resolution	Tolerance / Accuracy	Control stability
TP17650M	Ambient temperature to 650 °C	±1 °C	±1 °C	±0.1 °C
TP17650	Ambient temperature to 650 °C	±0.1 °C	±0.8 °C	±0.1 °C
TP17650S	Ambient temperature to 650 °C	±0.1 °C	±0.4 °C	±0.05 °C
TP17165M	-35 °C to 165 °C	±1 °C	±1 °C	±0.1 °C
TP17165	-35 °C to 165 °C	±0.1 °C	±0.4 °C	±0.1 °C
TP17165S	-35 °C to 165 °C	±0.1 °C	±0.2 °C	±0.05 °C

## Place of manufacture

Sika - Dr. Siebert & Kühn GmbH & Co. KG  
Struthweg 7-9  
34260 Kaufungen, Germany

## Application/Limitation

The Type Approval covers hardware listed under product description.

The instruments are only approved for use as portable test instruments.

The Type Approval is only valid for units with valid calibration certificate(s). For use in connection with the E0 notation, the temperature calibrator is to be calibrated yearly as specified by the manufacturer.

## Type Approval documentation

Drawings:	TP17650 : 400/23 391 00.00 rev. C, 400/23 391 10.00 rev. B, 400/30 391 00.00 rev. B TP17165 : 400/23 392 00.00 rev. B, 400/30 392 00.00 rev. A
Specification sheets:	Service Temperature Calibrators (TP Service_e 04/2010) Temperature Calibrators and Micro Calibration Bath (TP17000_e 04/2010)
Operating manuals:	Temperature Calibrator TP17...M (Ba_TP17M_en.pdf 04/2010) Temperature Calibrator TP17...(S) (Ba_TP17-TPM_en.pdf 04/2010)
Test reports:	SIKA Vibrationtest Prüfprotokoll Temperatur-Blockkalibrator TP17650 dated November 2005 SIKA Vibrationtest Prüfprotokoll Temperatur-Blockkalibrator TP17165 dated July 2006 Fehlersimulation TP17650 dated March 2005 Fehlersimulation TP17165 dated March 2006 Genauigkeits-_Stabilitätstest_TP17650 dated April 2010 Genauigkeits-_Stabilitätstest_TP17165 dated April 2010
Survey report:	Initial survey for Sika - Dr. Siebert & Kühn GmbH & Co. KG, DNV Essen 2009-01-08

## Tests carried out

- Vibration class A tests according to DNV Standard for Certification No. 2.4, April 2006
- SIKA performance and error simulation tests

## Marking of product

Each model is marked with manufacturer name, model name, part number, serial number and fabrication date.

## Certificate retention survey

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

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE