DNV·GL

Certificate No:
TAA000018F

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Test and Calibration Equipment

with type designation(s)
Temperature calibrators TC15M and TC65M

Issued to
IKM Instrutek AS
Larvik, Norway

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.

The instruments are only approved as portable temperature test- and calibration instruments.

Issued at **Høvik** on **2017-06-12**
This Certificate is valid until **2019-06-30**.
DNV GL local station: **Sandefjord**

Approval Engineer: **Nils Jarem**

for **DNV GL**

Odd Magne Nesvåg
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.

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Job Id: **262.1-007032-5**
Certificate No: **TAA000018F**

Product description

Temperature calibrator: TC15M
Temperature range: -40* to 150°C
* Relative to ambient temperature

Temperature calibrator: TC65M
Temperature range: 30°C to 650°C

The instruments are delivered with a valid calibration certificate.

Application/Limitation

The instrument is only approved as portable temperature test- and calibration instrument. The calibrator must hold a valid calibration certificate for use in connection with class notation E0.

Type Approval documentation

Tests carried out

Relevant EMC tests according to IEC 61326-1 Ed.1.0, with raised test levels according to class requirements.
24 hour functional test:
- TC15M temperature stability and accuracy tested at 0°C for 24 hours in 40°C environment, against reference instrument
- TC65M temperature stability and accuracy tested at 400°C (*) for 19 hours, against reference instrument

(*) The unit will automatically reduce set point temperature to 25°C if operated above 400°C at stable temperature for more than approximately 1,5 hour

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