



Certificate No:
TAE00004JK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Heating Cable

with type designation(s)
Raychem HTV Self-Regulating Trace Heating Systems

Issued to

nVent Thermal LLC
Houston, TX, USA

is found to comply with

DNV 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.

Rated voltage (V)	See Page 2
Temp. class (°C)	205°C
Power [W/m] @ref. temp.	See Page 2
Suitable for Hazardous areas	Yes

Issued at **Høvik** on **2022-11-01**

This Certificate is valid until **2027-10-31**.

for **DNV**

DNV local station: **Long Beach**

Approval Engineer: **Maik Gagern**

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Marta Alonso Pontes
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Self-regulating trace heating system consisting of the aHTVb-CT self-regulating heating cable, associated junction and connection kits and special cable glands.

Nomenclature for the heating cable:

aHTVb-CT

a: Output, W / ft @ 10°C: 3, 5, 8, 10, 12, 15, 20

b: Voltage: 1 (120 VAC: 90 ~ 130 VAC) or 2 (240 VAC: 190 ~ 277 VAC)

Application/Limitation

Freeze protection and temperature maintenance

Raychem HTV Self-Regulating heating cables must be installed using the following nVent Thermal LLC's Components:

Connection Kits: JBM-100-E, JBM-100-A, JBM-100-EP, JBM-100-L-E, JBM-100-L-A, JBM-100-L-EP, JBS-100-E, JBS-100-A, JBS-100-EP, JBS-100-L-E, JBS-100-L-A, JBS-100-L-EP, JBU-100-E, JBU-100-A, JBU-100-EP, JBU-100-L-E, JBU-100-L-A, JBU-100-L-EP, T-100, E-100-E, E-100-A, E-100-L-E, E-100-L-A, C25-100, C25-21, C25-100-METAL, C25-100-M ETAL-NP, C25-100-METAL SS, C3/4-100-METAL, C3/4-100-METAL-NP, C3/4-100-METAL-SS, C75-100-A

Splice Kits / Integral Components: S-40 and E-40

*Note: All details about electrical explosion protection mentioned in this certificate are for information only. For relevant binding information the details of a valid corresponding Certificate of Conformity with regard to electrical explosion protection, issued by a recognised Authority, and the Special Condition for Safe Use listed therein shall be observed. Ex installations to be approved in each case according to the DNV Rules.

Heating cables are not to be installed in contact with woodwork or other combustible material. If installed close to such materials, a separation by means of a non-flammable material may be required.

Type Approval documentation

Tests carried out

EN IEC 60079-0:2018

EN 60079-1:2015***

EN 60079-7:2017***

EN 60079-18:2017***

EN 60079-31:2013***

*** Based on IECEx Certificate of conformity IECEx PTB 21.0007X – Issue No. 2

Marking of product

Heating Cable Unit Type

Heating Cable Reference

Unit Length

Total Wattage

Supply Voltage

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type Approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and 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.



Job Id: **262.1-037294-1**
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END OF CERTIFICATE