DNV·GL

Certificate No:
TAA00000K8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Temperature Transmitter

with type designation(s)
248, 644, 848T

Issued to
Rosemount Inc.
Chanhassen MN, United States

is found to comply with
DNV GL rules for classification – Ships
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	**B / IP66: Al, C / IP66: SST**

This Certificate is valid until **2021-07-15**.

Issued at **Hamburg** on **2016-07-16**

for **DNV GL**

DNV GL local station: **New York**

Approval Engineer: **Andrea Grün**

Duy Nam Le
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: **262.1-003064-11**
Certificate No: **TAA00000K8**

Product description

Rosemount Temperature Transmitters comprising the following models:

248 – Temperature Transmitter, Head Mount
644 – Temperature Transmitter, Head Mount
848T – High Density Temperature Transmitter with FOUNDATION™ fieldbus

Place of manufacture

Rosemount Inc.
8200 Market St. Chanhassen
MN 55317, USA

Rosemount Inc.
6021 Innovation Blvd
Shakopee, MN 55379, USA

Emerson Process Management Asia Pacific Pte. Ltd.
(Rosemount Measurement)
1 Pandan Crescent, Singapore 128461, Republic of Singapore

Beijing Rosemount Far East Instrument Co., Ltd.
(Emerson (Beijing) Instrument Co., Ltd.)
No.6 North Street, Hepingli, Dong Cheng District, Beijing 100013, P.R. China

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

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification**/** Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Connection heads in Aluminum are approved for use enclosure class B areas. Material SST is required for use in enclosure class C areas.

The transmitters are to be supplied by a galvanic isolated 10 Vdc to 42.4Vdc power supply of approved type.

Type Approval documentation

Rosemount 248:

Reference manual	00809-0100-4825, Rev. CA, July 2010
Product data sheet	00813-0100-4825, Rev. HC, August 2010
Quick installation guide	00825-0100-4825, Rev. DA, June 2010
EC Declaration of Conformity	RMD 1049 Rev. B, 2008-03-24
Environmental test report	Bureau Veritas EK1441-3, issue 2, 2012-07-11
Enclosure test report	Rosemount statement (IP66 according to IEC 60529), 2010-11-01

Rosemount 644:	
Reference manual	00809-0100-4728, Rev. KA, July 2010
Reference manual	00809-0200-4728, Rev. NB, September 2012
Product data sheet	00813-0100-4728, Rev. RE, January 2013
Quick installation guide	00825-0100-4728, Rev. BB, June 2010 – (Smart Temperature Transmitters)
Quick installation guide	00825-0100-4829, Rev. BA, July 2010 – (Foundation™ Fieldbus)
Quick start guide	00825-0200-4728, Rev. AC, November 2012 – (4-20 mA HART)
Quick installation guide	00825-0300-4728, Rev. AA, July 2010 – (Profibus PA)
EC Declaration of Conformity	RMD 1016 Rev. J, 2012-10-10
Environmental test report	Bureau Veritas EK1441-2, issue 2, 2012-07-11
Environmental test report	Bureau Veritas EM3468-1, issue 1, 2013-01-24
Enclosure test report	Rosemount Inc. statement (IP66 according to IEC 60529), 2010-11-01

Rosemount 848T:	
Reference manual	00809-0100-4697, Rev. DA, November 2010
Product data sheet	00813-0100-4697, Rev. KA, October 2010
Quick installation guide	00825-0100-4697, Rev. DA, September 2010
EC Declaration of Conformity	RMD 1047 Rev. E, 2009-06-14
Environmental test report	Bureau Veritas EK1441-1, issue 2, 2012-07-11
Enclosure test report	Rosemount statement (IP66 according to IEC 60529), 2010-11-01

Tests carried out

Applicable tests according to Class Guideline DNV GL-CG-0339, November 2015.

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