

CERTIFICATE OF CONFORMITY



- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM18US0015X
- Equipment:** XMI-A
(Type Reference and Name) Mineral Insulated Heat Trace Cable Systems
- Name of Listing Company:** nVent Thermal Canada Ltd
- Address of Listing Company:** 250 West St
Trenton, ON K8V 5S2
Canada
- The examination and test results are recorded in confidential report number:
3004763 dated 8th February 2002
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:
FM Class 3600:2018, FM Class 3615:2018, ANSI/IEEE 515:2011, ANSI/IEEE 515.1:2012
- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
- Equipment Ratings:**
Explosionproof for Class I, Divisions 1 and 2, Groups A, B, C and D; and Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G; Class III, Division 1, hazardous (classified) locations and ordinary (unclassified) locations
- The marking of the equipment shall include:

Certificate issued by:



J. E. Marquardt
VP, Manager, Electrical Systems

29 May 2018

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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SCHEDULE



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Class I, Division 1, Groups A, B, C and D T*

Class II/III, Division 1, Groups E, F and G T*

(*) refer to conditions of use

12. Description of Equipment:

General - The XMI-A heating cables provide solutions for industrial freeze protection and process- temperature maintenance applications up to 1022°F (550°C) and maximum exposure temperatures up to 1200°F (650°C).

They are available as 300 V and 600 V rated heating cables and are approved for applications up to 61 watts per foot (200 watts per meter) of power output, and can be used for pipe and vessel tracing in both hazardous and non-hazardous area applications.

XMI-A heating cables are constructed using an Alloy 825 sheath and are ideally suited for heating applications where high power output, high exposure temperatures, or extreme resistance to environmental corrosives is needed.

Ratings - The XMI-A Mineral Insulated Heat Trace Cable Systems have a Maximum continuous exposure temperature for heating cable of 1200°F (650°C). The Maximum continuous exposure temperature for brazed components (such as hot/cold joints and end cap) is 1022°C (550°C). The T-Code is established by calculating the maximum sheath temperature using TraceCalc Pro software.

abcde XMI-A Mineral Insulated Electric Heating Cable Systems.

a = Voltage rating: 3 (300V) or 6 (600V).

b = Number of conductors: 1 or 2.

c = Sheath material: C(Copper), S(Alloy 825, Discrete) or W(Alloy 825, Continuous) or H(HDPE jacketed copper sheath cables). Jacket required for Group A on copper cables

d = Conductor material: A(Nichrome), B(Constantan), C(Copper), D(Everdur 655), E(Everdure 651), F(Nichrome F), L(Ni-Clad CU), P(Alloy 30), Q(Alloy 60), R(Alloy 90), or T(Alloy 180).

e = Four digit code representing resistance in Ohms/ft @ 20°C. 1st digit, Move decimal point from the end of this number, number of places to the left. 2nd to 4th digits, Resistance in Ohms/cable foot (used in conjunction with the 1st digit).

13. Specific Conditions of Use:

1. Pentair Thermal Management Canada Ltd is to provide design parameters for an engineered system for the specific installation application which will include the Maximum Sheath Temperature (T code rating).
2. The Mineral Insulating cables have a Maximum Exposure Temperature (Power off) of 1238°F (670°C) and a Maximum Maintain Temperature of 1022°F (550°C).
3. The Mineral Insulated Cables require the use of an NRTL Approved enclosure that is appropriately rated for the hazardous (classified) location area use of the heating cable.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

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15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
8 th February 2002	Original Issue.
1 st April 2018	<u>Supplement 7:</u> Report Reference: 3062159 dated 1 st April 2018. Description of the Change: 1. Update to new certificate format. 2. Update to later editions of the identified standards. 3. Added to identify the latest version of TraceCalc Pro Software Standard Operating Procedure to the database (document SOP # R0834 under lab qual project ID 0B4Q1.AX).
29 th May 2018	<u>Supplement 8:</u> Report Reference: RR214095 dated 29 th May 2018. Description of the Change: Name change to nVent Thermal Canada Ltd.

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