CERTIFICATE OF CONFORMITY

FM Approvals

1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** **FM18US0136X**
3. **Equipment:**
   (Type Reference and Name) **JBM-100-A, JBS-100-A, JBU-100-A, JBM-100-L-A, JBS-100-L-A, JBU-100-L-A, JBS-100-A6, JBM-100-A6, JBU-100-A6, JBS-100- STB, JBM-100-STB and T100 Connection Kits**
4. **Name of Listing Company:** **Chemelex LLC**
5. **Address of Listing Company:** **899 Broadway St, Redwood City, California 94063-3104, United States of America**
6. The examination and test results are recorded in confidential report number:

   5D8A4.AX dated 28th December 1998

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

   FM 3600:2022, FM 3611:2004, FM 3810:2018, ANSI/UL 50E:2020, ANSI/IEEE 515:1997

8. 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.
9. 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.
10. Equipment Ratings:

    Non-incendive for Class I, Division 2, Groups A, B, C and D; and Suitable for Class II and III, Division 2, Groups F and G hazardous (classified) locations, indoors and outdoors; Type 4X.

11. The marking of the equipment shall include:

    See Annex

12. **Description of Equipment:**

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

4 February 2026
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. One Technology Way, Norwood, MA 02062 USA
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See Annex

13. **Specific Conditions of Use:**

    See Annex

14. **Test and Assessment Procedure and Conditions:**

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

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
28 December 1998	Original Issue.
20 May 2018	Supplement 8: Report Reference: RR214021 dated 20th May 2018 Description of the Change: 1) Name change to nVent Thermal LLC. 2) Updated the year on FM Class 3600 and FM Class 3810 standards to 2018 due to nontechnical changes in the latest editions of those standards.
26 January 2024	Supplement 9: Report Reference: PR466348 dated 26 January 2024. Description of the Change(s): Test and approval of new lens material, remove Class I Zone 1 Group II rating, update the certificate for Division 2 only and include for use with XTVR in the SCoU which was approved in project PR463437. Updated the year on FM Class 3600 to 2022 due to nontechnical changes in the latest editions of the standard. Add JBU which was approved in Project PR463437 and PR459751and is on FM18US0064XSupp14 and FM20US0147XSupp02 as part of the system. Reformat to Annex style.
4 February 2026	Supplement 10: Report Reference: RR249443 dated 4 February 2026. Description of the Change(s): Update format and change to new company name.

ANNEX

JBM-100-L-A, JBS-100-L-A, JBU-100-L-A

Markings:

JBM-100-L-A, JBU-100-L-A, JBS-100-L-A Connections Kits.
Class I, Division 2, Groups A, B, C and D T*; Class II/III, Division 2, Groups F and G T*;
Type 4X
(*) refer to specific conditions of use

Description of Equipment:

The JB*-100-L-As are lighted power connection kits, designed to connect power for BTV, QTVR, XTV, XTVR, HTV, or VPL heating cable(s). The JBM-100-L-A and JBS-100-L-A integrate the functions of connection kits and insulation entries. JBU-100-L-A is for the off-pipe installation. The JB*-100-L-As have a junction box with one through hole. The kits includes one stopping plug.

Specific Conditions of Use:

1. For use with BTV, QTVR, XTV, XTVR, HTV and VPL Electrical Heat Tracing Cables.
2. Temperature code is based on the rating of the electrical heat tracing cables for which the connection kits are intended to be used
3. Ambient temperature range is -40°F (-40°C) to 104°F (40°C)
4. The supply circuit shall be protected by a fuse capable of withstanding a protective short-circuit current of 1500 Amperes.
5. The JBL-100-G and JBL-100-R Light Modules shall be installed in such a manner that they are not exposed to Ultraviolet Light.

JBS-100-A, JBU-100-A, JBM-100-A

Markings:

***JBS-100-A, JBU-100-A, JBM-100-A* Connection Kit.**
Class I, Division 2, Groups A, B, C and D T*; Class II/III, Division2, Groups F and G T*;
Type 4X
(*) refer to specific conditions of use

Description of Equipment:

The JB*-100-As are power connection kits, designed to connect power for BTV, QTVR, XTV, XTVR, HTV, or VPL heating cable(s). The JBM-100-A and JBS-100-A integrate the functions of connection kits and insulation entries. JBU-100-A is for the off-pipe installation. The JB*-100-As have a junction box with one through hole. The kits includes one stopping plug.

Specific Conditions of Use:

1. For use with BTV, QTVR, XTV, XTVR, HTV and VPL Electrical Heat Tracing Cables.
2. *Temperature code is based on the rating of the electrical heat tracing cables for which the connection kit is intended to be used.
3. Ambient temperature range is -75°F (-60°C) to 132°F (56°C)

JBS-100-A6, JBM-100-A6, JBU-100-A6

Markings:

JBS-100-A6, JBM-100-A6, JBU-100-A6 Connection Kit.
Class I, Division 2, Groups A, B, C and D T*; Class II/III, Division2, Groups F and G T*;
Type 4X
(*) refer to specific conditions of use

Description of Equipment:

The JB*-100-A6s are power connection kits, designed to connect power for BTV, QTVR, XTV, XTVR, HTV, or VPL heating cable(s) and power wires up to 6AWG. The JBM-100-A6 and JBS-100-A6 integrate the functions of connection kits and insulation entries. JBU-100-A6 is for the off-pipe installation. The JB*-100-A6s have a junction box with one through hole. The kits includes one stopping plug.

Specific Conditions of Use:

1. For use with BTV, QTVR, XTV, XTVR, HTV and VPL Electrical Heat Tracing Cables.
2. *Temperature code is based on the rating of the electrical heat tracing cables for which the connection kit is intended to be used.
3. Ambient temperature range is -75°F (-60°C) to 132°F (56°C)

JBS-100-STB, JBM-100-STB

Markings:

JBS-100-STB, JBM-100-STB Connection Kits
Class I, Division 2, Groups A, B, C and D T*; Class II/III, Division 2, Groups F and G T*;
Type 4X
(*) refer to specific conditions of use

Description of Equipment:

The JB*-100-STBs are power connection kits with a screw terminal block, designed to connect power for BTV, QTVR, XTV, XTVR, HTV, or VPL heating cable(s). The JBM-100-STB and JBS-100-STB integrate the functions of connection kits and insulation entries. The JB*-100-STBs have a junction box with one through hole. The kits includes one stopping plug.

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Specific Conditions of Use:

1. For use with BTV, QTVR, XTV, XTVR, KTV and VPL Electrical Heat Tracing Cables.
2. Not for use in Class I, Zone 1 locations when used with VPL cables.
3. *Temperature code is based on the rating of the electrical heat tracing cables for which the connection kit is intended to be used.
4. Ambient temperature range is -75°F (-60°C) to 132°F (56°C)

T-100 Splice/Tee

Markings:

T-100 Splice/Tee Connection Kit
Class I, Division 2 Group A, B, C, and D T*; Class II/III Division 2 Group F and G T*;
Type 4X
(*) refer to specific conditions of use

Description of Equipment:

The T-100 serves as an above-insulation splice or tee connection for up to three BTV, QTVR, XTV, XTVR, HTV, or VPL heating cables and integrates the functions of connection kits and insulation entries. The rugged stand protects the heating cable and allows for up to four inches (100 mm) of thermal insulation. The electrical connections in the T-100 are made with insulated crimps.

Specific Conditions of Use:

1. For use with BTV, QTVR, XTV, XTVR, HTV and VPL Electrical Heat Tracing Cables.
2. *Temperature code is based on the rating of the electrical heat tracing cables for which the connection kit is intended to be used.
3. Ambient temperature range is -75°F (-60°C) to 132°F (56°C)

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