



1. EU-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU

3. EU-Type Examination Certificate No: FM23ATEX0009X

4. Equipment or protective system:
(Type Reference and Name) Type BSX Parallel, Self-Regulating Heat Trace Cable Systems

5. Name of Applicant: Thermon Inc

6. Address of Applicant 100 Thermon Dr,
San Marcos, Texas 78667, USA

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

PR465052 dated 28 January 2024

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-30-1:2017, EN 60529:1991+A1:2000+A2:2013

10. 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.

11. This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

Certificate issued by:

Certification Manager, FM Approvals Europe Ltd.

Date 30 January 2024

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

FM Approvals Europe Ltd. One Georges Quay Plaza, Dublin. Ireland. D02 E440
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SCHEDULE

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12. The marking of the equipment or protective system shall include:



II 2 G Ex 60079-30-1 IIC T* Gb
II 2 D Ex 60079-30-1 IIIC T* Db
Min. Install. Temp. -60°C

* Temperature Class: T5/T100°C for BSX 10-1 & 10-2; T6/T85°C for all others

13. Description of Equipment or Protective System:

The electrical heat trace cable systems consist of type BSX parallel, self-regulating heating cables, to be installed using the manufacturer's separately certified integral components, connection and termination enclosures. The system is used in order to raise and maintain the temperature of a workpiece they are externally applied to. The cables are cut to length and terminated in the field with the Thermon Inc (manufacturer) supplied kits.

The cables are also intended to be installed using the manufacturer's separately certified Terminator Ex Equipment. The cables maintain environmental Degree of Protection (IP) ratings based on the separately certified connection and termination enclosures.

Voltage Rating: 110...277 Vac

Power Ratings :10 to 33 W/m @10°C (3 to 10 W/ft @50°F)

Ambient Temperature Range: -60°C to +55°C

Minimum Installation Temperature: -60°C

Minimum bend radius: 32 mm @ -60°C; 10 mm @ -15°C

Maximum Maintain Temperature: 65°C

BSX a-b-c. Parallel Self Regulating Heat Trace Cable System.

a = Power output:

3 - 3 W/ft (10 W/m) @ 50°F (10°C)

5 - 5 W/ft (16 W/m) @ 50°F (10°C)

8 - 8 W/ft (26 W/m) @ 50°F (10°C)

10 - 10 W/ft (33 W/m) @ 50°F (10°C)

b = Voltage:

1 - 120 Vac

2 - 240 Vac

c = Overjacket: OJ (Polyolefin overjacket), FOJ (Fluoropolymer overjacket)

14. Specific Conditions of Use:

1. For custom power outputs and operating voltages, Thermon is to provide design parameters for an engineered heating cable system for calculation of the Maximum Sheath Temperature (Temperature Class) in accordance with local applicable standards.
2. The electric heat trace cable systems are designed for use with the manufacturer's suitably rated connection kits. The IP rating for the electrical heat trace cable system is dependent on the rating of the connection kits.

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15. Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17. Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
30 January 2024	Original Issue.

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Blueprint Report

Thermon Inc (1000001137)

Class No 3770

Original Project I.D. 465052

Certificate I.D. FM23ATEX0009X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
A0108046	9	B PROFILE HEATING CABLE DESIGN SPEC (FOJ OPTION)	PR465052
A0108047	5	B PROFILE HEATING CABLE DESIGN SPECIFICATION	PR465052
RD000727	2	BSX Markings	PR465052
RD001382	1	Explosion Safety Aspects	PR465052