



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 12ATEX3157U** Issue: **0**

4 Component: **BPS4, BPS5, HPS2, BES4, BES5, and HES2 Termination Kits**

5 Applicant: **Heat Trace Limited**

6 Address: **Meres Edge
Chester Road
Helsby
Frodsham WA6 0DJ
UK**

7 This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

IEC 60079-0:2011 EN 60079-30-1:2007 EN 60079-31:2009

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any special conditions for safe use are listed in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:



II 2 GD
Ex e IIC Gb
Ex t IIIC Db

Project Number 25433

C Ellaby
Deputy Certification Manager

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 12ATEX3157U
Issue 0

13 **DESCRIPTION OF COMPONENT**

These devices are used for field terminating trace heating cable for voltages up to 277 Vac. The **BES4, BES5, HES2 End Termination Kits** provide a blank end for the cable and the **BPS4, BPS5, HPS2 Power Seal Kits** not only seal the end of the cable but also enable it to be connected to the supply. The devices have an IP67 Ingress Protection Rating and are constructed as described below:

Seal type	Construction
BES4 and BES5	A silicone rubber boot filled with RTV silicone sealant*; a ferrule crimp is provided for braided cable.
HES2	Two different lengths of HTAT heat shrink tubing; the tubing has an adhesive liner and the lengths are applied in two layers. A crimp is used for braided heaters
BPS4 and BPS5	A silicone rubber boot that is filled with RTV silicone sealant*; an earth sleeve and ring crimp are provided for braided cable.
HPS2	A length of 'Sumitube' heat shrink tubing is applied over each buswire, a larger diameter ATUM heat shrink tubing completes the termination; an earth sleeve and ring crimp is provided for braided cable.

(Note: two types of sealant are available to provide two temperature ranges)

Trace heating cable type	Seal type and suitability					
	BES4	BES5	HES2	BPS4	BPS5	HPS2
FSM without outer-sheath	Yes	No	Yes	Yes	No	Yes
FSM with outer-sheath	Yes	No	Yes	Yes	No	Yes
FSLe without outer-sheath	Yes	No	Yes	Yes	No	Yes
FSLe with outer-sheath	Yes	No	Yes	Yes	No	Yes
FSR without outer-sheath	Yes	No	Yes	Yes	No	Yes
FSR with outer-sheath	Yes	No	Yes	Yes	No	Yes
FSE without outer-sheath	Yes	No	Yes	Yes	No	Yes
FSE with outer-sheath	Yes	No	Yes	Yes	No	Yes
FSEw without outer-sheath	No	Yes	Yes	Yes	No	Yes
FSEw with outer-sheath	No	Yes	Yes	No	Yes	Yes
FSS without outer-sheath	Yes	No	Yes	Yes	No	Yes
FSS with outer-sheath	Yes	No	Yes	Yes	No	Yes
FSU without outer-sheath	Yes	No	Yes	Yes	No	Yes
FSU with outer-sheath	Yes	No	Yes	Yes	No	Yes
FSUw without outer-sheath	No	Yes	Yes	Yes	No	Yes
FSUw with outer-sheath	No	Yes	Yes	No	Yes	Yes
FLV without outer-sheath	Yes	No	Yes	Yes	No	Yes
FLV with outer-sheath	Yes	No	Yes	Yes	No	Yes
FLVw without outer-sheath	Yes	No	Yes	Yes	No	Yes
FLVw with outer-sheath	Yes	No	Yes	Yes	No	Yes
MTFJ without outer-sheath	Yes	No	Yes	Yes	No	Yes
MTFJ with outer-sheath	Yes	No	Yes	Yes	No	Yes
PHT without outer-sheath	Yes	No	Yes	Yes	No	Yes
PHT with outer-sheath	Yes	No	Yes	Yes	No	Yes
AHT	Yes	No	Yes	Yes	No	Yes
FS+C without outer-sheath	Yes	No	Yes	Yes	No	Yes
FS+C with outer-sheath	Yes	No	Yes	Yes	No	Yes

Note: The number suffix in the type reference refers to the diameter of cable that can be accommodated.

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Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
 Fax: +44 (0) 1244 681330
 Email: info@siracertification.com
 Web: www.siracertification.com



SCHEDULE

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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	14 November 2012	R25433G/00	The release of the prime certificate.

15 SPECIAL CONDITIONS FOR SAFE USE

15.1 These termination kits and the cable that enters them shall be fixed to a secure mounting point.

15.2 The component shall only be used with constant power or self-regulating trace heating cables within the following ranges:

Product Ref	Limiting temperature range
HES2	-40°C to 105°C
HPS2	-40°C to 90°C
BES4, BES5, BPS4, BPS5 (Standard RTV)	-40°C to 180°C
BES4, BES5, BPS4, BPS5 (High temp RTV)	-40°C to 250°C

This is particularly relevant when the trace heating cable is installed on pipework that has a temperature outside these ranges, in this situation, the termination devices shall be positioned outside the insulation, and the user/installer shall ensure that they are not exposed to UV radiation.

15.3 When these components are used with the heating cable types listed in the description and installed in accordance with the above conditions and manufacturer's instructions, no further testing is required.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 The packaging of these devices shall bear all the relevant marking information detailed in report no. R25433G/00 including the appropriate limiting temperature range detailed in clause 15.2.

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Certificate Annexe

Certificate Number: Sira 12ATEX3157U
Component: BPS4, BPS5, HPS2, BES4, BES5, and HES2
Termination Kits
Applicant: Heat Trace Limited



Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
BES4-PL	1 of 1	5	08 Nov 12	BES4 – End seal reference List
BES5-PL	1 of 1	5	08 Nov 12	BES5 – End seal reference List
BPS4-PL	1 of 1	5	08 Nov 12	BPS4 – Boot Power Seal reference List
BPS5-PL	1 of 1	5	08 Nov 12	BPS5 – Boot Power Seal reference List
HES2-PL	1 of 1	4	08 Nov 12	HES2 – Shrink Sleeve End Seal reference List
HPS2-PL	1 of 1	4	08 Nov 12	HPS2 – Shrink Sleeve Power Seal reference List
TK0492-X/0	1 of 1	0	08 Nov 12	BES4 – Silicone Boot Power Seal
TK0494-X/0	1 of 1	0	08 Nov 12	BES5 – Silicone Boot Power Seal
TK0512-X/0	1 of 1	0	08 Nov 12	BPS4 – Silicone Boot Power Seal
TK0514-X/0	1 of 1	0	08 Nov 12	BPS5 – Silicone Boot Power Seal
TK0555/S	1 of 1	0	08 Nov 12	Certification Label Drawing For Packaging

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