



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 02ATEX3077** Issue: **2**

4 Equipment: **Minitracer (MTFJ) Constant Power Heating Cable**

5 Applicant: **Heat Trace Limited**

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

7 This equipment and any acceptable variation thereto is 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 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 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:

EN 50014:1997 (A1 and A2)      EN 50019:2000      IEC 62086-1:2001

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 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

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

12 The marking of the equipment shall include the following:



II 2G  
EEx e II T (see schedule)

Project Number 70046968

A C Smith  
Certification Manager

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**Sira Certification Service**

Unit 6, Hawarden Industrial Park,  
Hawarden, CH5 3US, United Kingdom



**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

**Sira 02ATEX3077  
Issue 2**

**13 DESCRIPTION OF EQUIPMENT**

The Minitracer (MTFJ) Heating Cables are constant power trace heating cables that are used to protect against freezing or maintain temperatures. The cables are rated at up to 33 W/m on a supply voltage up to 277 V. They comprise two insulated parallel bus wires, around which is extruded a layer of insulation. A resistance wire is spiralled over the core, which is notched at intervals so that the resistance wire connects to the bus wires underneath. A further layer of fluoropolymer insulation is extruded over the top of the resistance wire. The insulation is covered with a tinned copper braid and an additional anti-corrosive covering manufactured from fluoropolymer may be extruded over the braid.

The heating cables are cut to length to form a unit that is terminated at each end with a seal kit. The equipment is designed to be connected to a supply by means of suitable certified cable entries and junction boxes in accordance with the manufacturer’s installation instructions.

The maximum surface temperature is dependent on the maximum permissible workpiece temperature as shown in the following tables:

Table A		Maximum Permissible Workpiece Temperature					
Maximum surface temperature:		T6	T5	T4	T3	T2	T1
Product type	Nominal output (W/m)						
MTFJ...C	6.5	54	72	115	187	190	190
	13	30	45	87	173	179	179
	23	-	-	47	144	151	151
	33	-	-	-	102	111	111
MTFJ...CF	6.5	54	74	121	190	190	190
	13	21	41	90	180	187	187
	23	-	-	39	152	158	158
	33	-	-	-	103	113	113

Table B		Maximum Permissible Workpiece Temperature					
Maximum surface temperature:		T6	T5	T4	T3	T2	T1
Product type	Nominal output (W/m)						
MTFJ...C	6.5	58	77	119	189	190	190
	13	37	51	97	180	186	186
	23	-	-	60	157	165	165
	33	-	-	35	125	133	133
MTFJ...CF	6.5	60	80	123	190	190	190
	13	33	52	103	186	190	190
	23	-	-	58	161	169	169
	33	-	-	-	132	143	143

Table A: Stabilised design system or Protective System

Table B: Protective system with Heat Trace 'Powermatch' power controller

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**Sira Certification Service**

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

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Issue 2

**Variation 1** - This variation introduced the following changes:

- i. The company address was changed from Tracer House, Cromwell Road, Bredbury, Stockport, SK6 2RF to Meres Edge, Chester Road, Helsby, Frodsham, WA6 0DT.

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	07 March 2003	R53A8908A	The release of the prime certificate.
1	25 April 2006	R51A14380A	The introduction of Variation 1
2	17 December 2015	R70046968B	This Issue covers the following changes: <ul style="list-style-type: none"><li>• All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 to 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.</li><li>• Issued to correct a typographical error in Condition 17.3</li></ul>

#### 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 None

#### 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 An electric strength test of  $2 \times E + 1000$  V rms shall be applied between the conductors and the outer braid or jacket as appropriate for 60 seconds as required by clause 5.1.2 of IEC 62086-1:2001.

17.4 An electric strength test of the polymeric sheath (overjacket) used for corrosion resistance shall be carried out in accordance with the requirements of IEC 62806-1:2001 clause 5.2.1.

17.5 The manufacturer shall verify the output rating for each cable manufactured in accordance with IEC 62086-1-2001 clause 5.2.2

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# Certificate Annexe



**Certificate Number:** Sira 02ATEX3077  
**Equipment:** Minitracer (MTFJ) Constant Power Heating Cable  
**Applicant:** Heat Trace Limited

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## Issue 0

Drawing	Sheets	Rev	Date	Title
HC3301/S	1 of 1	0	14 Oct 02	MTFJ specification
BES1-PL	1 of 1	A	06 Mar 00	BES1 – End seal reference list
BES2-PL	1 of 1	A	06 Mar 00	BES2 – End seal reference list
BPS1-PL	1 of 1	A	06 Mar 00	BPS1 – Silicone boot power seal reference list
HES2-PL	1 of 1	A	06 Mar 00	HES2 – Shrink sleeve end seal reference list
HPS2-PL	1 of 1	A	06 Mar 00	HPS2 – Shrink sleeve power seal reference list

## Issue 1

Number	Sheet	Rev	Date (Sira stamp)	Description
HC3301/S	1 of 1	1	25 April 06	MTFJ specification

**Issue 2** No new drawings were introduced.

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