



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate No.: **Sira 18ATEX3038X** Issue: **0**

4 Equipment: **HTM type 211-4**-*11-***, HTA type 211-4**-*12-***, HTP type 211-4**-*13-*** and BTC type 211-4**-*24-*** Heating Systems**

5 Applicant: **SDB «Gamma» LLC**

6 Address: Fabrichnyj proezd 1
Ivanteevka
Moscow region
141280
Russian Federation

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 Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 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 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 60079-0:2012+A11:2013 IEC/IEEE 60079-30-1:2015 Ed.1.0

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 Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-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:

HTM, HTA and HTP



II 2 GD
Ex 60079-30-1 IIC T6 Gb
Ex 60079-30-1 IIIC T85°C Db

BTC



II 2 GD
Ex 60079-30-1 IIC T3 Gb
Ex 60079-30-1 IIIC T200°C Db

Project Number 70172366


C Ellaby
Deputy Certification Manager

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**Sira 18ATEX3038X
Issue 0**

13 DESCRIPTION OF EQUIPMENT

The HTM type 211-4**-*11-***, HTA type 211-4**-*12-***, HTP type 211-4**-*13-***, BTC type 211-4**-*24-*** heating system, (hereafter the heating systems) are trace heating systems used to raise or maintain the temperature of a workpiece, with a rated voltage of 230 VAC at 50 Hz.

The heating systems consist of the Self Limiting Parallel Trace Heaters, either HTM type 211-111-***-2**, HTA type 211-113-***-2**, HTP type 211-115-***-2** or BTC type 211-125-***-2** (Sira 17ATEX3335U) and the integral components TKR type 211-212-411-001, TKL type 211-212-411-002, CP-6 type 211-211-111-001, CP-7 type 211-211-112-001 or TKT/M type 211-211-211-001.

Table 1: Thermal Parameters of Self Limiting Trace Parallel Trace Heaters

Thermal Parameter	Heating System	Parameter
Ambient Temperature Range	HTM, HTA, HTP, BTC	-60°C to 55°C
Minimum Installation Temperature	HTM, HTA, HTP with TPO overjacket	-30°C
	HTM, HTA, HTP, BTC with fluoropolymer overjacket	-60°C
Maximum continuous exposure temperature (De-energized)	HTM, HTA, HTP	85°C
	BTC	200°C
Maximum maintain temperature (Energized)	HTM, HTA, HTP	65°C
	BTC	120°C
Minimum Bending Radius	HTM, HTA, HTP with TPO overjacket	25mm at -30°C
	HTM, HTA, HTP, BTC with fluoropolymer overjacket	25mm at -60°C
Degree of Protection (IP rating)	HTM, HTA, HTP, BTC	IP67

Table 2: Combinations with connections technology integral components

Self Limiting Parallel Trace Heater	Type of heating system		
	211-424-1**-*11-***	211-411-1**-*12-***	211-412-1**-*13-***
	Combinations with connections technology integral components		
	Trace heater in-box^ + end termination	Trace heater – trace heater or Trace Heater – power cable^	Trace heater – power cable^ + end termination
211-111-***-2** (HTM)	TKR	CP-6 for heaters with TPO overjacket CP-7 for heaters with fluoropolymer overjacket	TKT/M for heaters with TPO overjacket
211-113-***-2** (HTA)	TKR		
211-115-***-2** (HTP)	TKR		
211-125-***-2** (BTC)	TKL	CP-7	-

^ For clarification, the term "power cable" refers to a "cold lead" and "in-box" refers to a junction box/control panel. Both the cold leads and junction boxes were not assessed as part of this certificate, therefore they are subject to a "specific conditions of use". See section 15.3.



SCHEDULE

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**Sira 18ATEX3038X
Issue 0**

Table 3: Nomenclature and application of Connection Technology products

$\frac{2}{a} \frac{1}{b} \frac{1}{c} - \frac{2}{d} \frac{1}{e} \frac{X}{f} - \frac{X}{g} \frac{X}{h} \frac{X}{i} - \frac{X}{j} \frac{X}{j} \frac{X}{j}$

Position	Explanation	Possible values	Value explanation
a, b, c, d, e	General product selector	211-21	Industry group self limiting parallel trace heater – accessories, connection kits
f	Sealing method	CP-6, CP-7, TKT/M	1 Heat-shrink
		TKR, TKL	2 Silicone boot + sealant (cold)
g	Application	CP-6, CP-7	1 Trace heater – trace heater (repair) or trace heater – power cable
		TKT/M	2 Power termination without junction box + end termination without junction box
		TKR, TKL	4 Power termination inside junction box + end termination without junction box
h	Branches	1	No branches (single input – single output)
		2	One branch (single input – two outputs)
i	Temperature group	1	Low temperature
		2	High temperature
j	Revision code	000 - 999	Revision number

Table 4: Types of Heating System Nomenclature and types of Heating System

$\frac{2}{a} \frac{1}{b} \frac{1}{c} - \frac{4}{d} \frac{X}{e} \frac{X}{f} - \frac{X}{g} \frac{X}{h} \frac{X}{i} - \frac{X}{j} \frac{X}{j} \frac{X}{j}$

Position	Explanation	Possible values	Value explanation
a, b, c, d,	General product selector	211-4	Industry group self limiting parallel trace heater – heating systems, with connection technology parts
e	Connection technology method	CP-6, CP-7, TKT/M	1 Heat-shrink
		TKR, TKL	2 Silicone boot + sealant (cold)
f	Application use cases	CP-6, CP-7	1 Trace heater – trace heater (repair) or trace heater – power cable
		TKT/M	2 Power termination without junction box + end termination without junction box
		TKR, TKL	4 Power termination inside junction box + end termination without junction box
g	Branches	1	No branches (single input – single output)
		2	One branch (single input – two outputs)

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SCHEDULE

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Sira 18ATEX3038X
Issue 0

Position	Explanation	Possible values	Value explanation
h	Temperature group	1	Low temperature
		2	High temperature
i	Trace heater used	1	211-111-***-2** (HTM)
		2	211-113-***-2** (HTA)
		3	211-115-***-2** (HTP)
		4	211-125-***-2** (BTC)
j	Revision code	0 - 9	Revision number
k	Revision code	00 - 99	Revision number

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	15 March 2018	R70172366A	The release of the prime certificate.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 Testing for outdoor exposure, in accordance with the relevant clause of IEC/IEEE 60079-30-1, was not conducted; therefore, these heating systems shall not be exposed to a combination of both UV light and moisture in service.
- 15.2 Integrated components parts for each Self Limiting Parallel Heater shall be chosen per manufacturer's selection list; see product description of this certificate.
- 15.3 The power connections shall be installed in a suitably certified junction box or control panel, which shall contain the label to be used as indicated in drawing no. NS-030.00.000 SB. The cold leads to be used with these integral components shall be suitable, and shall be appropriate for use in the Group IIC or IIIC explosive atmospheres if they are installed in the hazardous area.

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 MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Issue 0

- 17.3 The manufacturer's drawings no. NS-029.00.000 SB (integral components kits label details) and NS-030.00.000 SB (junction box/control panel label details) shall be provided with delivery of the heating systems to the end user.
- 17.4 The products covered by this certificate incorporate the following, previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.
- Self Limiting Parallel Trace Heaters, Certificate Number Sira 17ATEX3335U

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Certificate Annexe

Certificate No.: Sira 18ATEX3038X
Equipment: Heating Systems Types HTM, HTA, HTP & BTC
Applicant: SDB «Gamma» LLC



Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
NS-024.00.000 SB	Total 2	-	19 Feb 18	Kit TKR
NS-028.00.000 SB	Total 3	-	19 Feb 18	Kit CP-7
NS-027.00.000 SB	Total 3	-	19 Feb 18	Kit CP-6
NS-023.00.000 SB	Total 2	-	19 Feb 18	Kit TKL
NS-026.00.000 SB	Total 2	-	19 Feb 18	Kit TKT/M
G.PRM.4011.00.00.00.00 BP	Total 2	-	19 Feb 18	List of non-metallic materials received from suppliers
NS-029.00.000 SB	Total 1	-	19 Feb 18	Marking plate drawing for kit packaging and process pipe
NS-030.00.000 SB	Total 1	-	19 Feb 18	Marking plate drawing for heating systems (fixed on junction boxes/control panel)
G PRM.201.00.00.00.000 M	Total 10	-	21 Feb 18	Instruction manual for the end user of the heating systems

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