



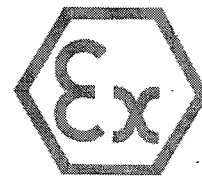
ISSEP
Institut scientifique
de service public

Métrologie environnementale
Recherche - Analyses
Essais - Expertises

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- (1) **EC TYPE EXAMINATION CERTIFICATE**
- (2) **Equipment or protective system intended for use
in potentially explosive atmospheres
Directive 94/9/EC**
- (3) EC type examination certificate number: **ISSeP08ATEX009X**
- (4) Equipment or protective system: housing for electrical heating apparatus
Type: D-8660
- (5) Applicant – Manufacturer :
Sinus Jevi Electric Heating B.V.
- (6) Address: Nijverheidsweg 2
1671 GC Medemblik
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) ISSeP, notified body n° 492 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in annex II to the Directive.
- The examination and test results are recorded in confidential report no 06089
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0: 2006 (IEC 60079-0: 2004) EN 60079-1: 2007 (IEC 60079-1: 2007)
EN 60079-7: 2007 (IEC 60079-7:2006)
EN 61241-0: 2006 (IEC 61241-0: 2004) EN 61241-1: 2004 (IEC 61241-1: 2004)
- (10) If the symbol "X" is placed after the certificate number, it indicates that the equipment or protective system 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, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of this Directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include the following indications:

II 2 G D Ex de IIC T6 to T1 Ex tD A21 IP66 T110°C

Colfontaine, the 07.03.2008

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer - B7340 Colfontaine (Wasmes)
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Marcel Lambert,
Manager.

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(13)

SCHEDULE

(14)

EC TYPE EXAMINATION CERTIFICATE No ISSeP08ATEX009X

(15) Description of the equipment :

Electrical heating apparatus allotted to the heating of inert liquids and gases. This apparatus bears the type designation D-8660 and consists of:

- a certified flameproof connection box
- certified electrical heating elements
- a manually rearmed protective device

The length "H" (to see drawing 953.D8660-01) required to not exceed the temperature limit of 80°C inside the connection box in accordance with the different temperature classes is listed in the here-below table

Temperature class	Length "H" (mm)
T6	50
T5	75
T4	100
T3	150
T2	200
T1	250

Remark :

When the heating elements are fitted on the bottom plate of the housing, the temperature is limited by a safety thermostat and an additional marking is foreseen for the cables (to see drawing 953.D8521-04)

Temperature classes

TEMPERATURE CLASS	TEMPERATURE SETTING OF THE THERMOSTAT (°C)					
	Inert liquids	Gases				
	Power dissipated by the heating element (W/cm ²)	Power dissipated by the heating element (W/cm ²)				
	7,5	2	1,5	1	0,5	0,2
T6	90	----	----	----	----	----
T5	110	----	----	----	----	65
T4	145	----	----	----	70	85
T3	210	----	----	90	110	130
T2	310	130	135	150	190	250
T1	-----	230	250	300	----	----

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SCHEDULE

EC TYPE EXAMINATION CERTIFICATE No ISSeP08ATEX009X

Electrical parameters

Voltage supply: 110 up to 690 V

Eventual prescriptions

The ambient temperature range: -30 °C to + 50°C

Routine tests

The manufacturer shall make the routine verifications and tests to ensure that the electrical apparatus produced complies with the specification submitted to the testing station together with the prototype. Each empty enclosure shall be submitted to a routine test under the pressure of 10.5 bar maintained during at least 10 seconds (maximum 60 seconds)

- (16) Report n° 06089 of 4.03.2008 composed of 29 pages
The descriptive and technical note from the manufacturer dated of 25.05.2007 related to heating apparatus – size 6" (6 and 3 pages)
The additional descriptive note dated 1.08.2007 (2 pages)
The notices of instruction (8 pages)
A data sheet related to the sealing gasket dated 1.09.2006
The drawings
953.D6150-10 of 19.11.2002 Rev.1 of 28.01.2008
953.D8521-04 of 14.08.2006
953.D8615-20 of 18.02.2008
953.D8640-13 of 20.05.2005
953.D8640-20 of 8.12.2003
953.D8660-01 of 26.08.2002
953.D8660-02 of 9.12.2002
953.D8660-03 of 30.12.2004
953.D8660-11 of 7.03.2000
953.D8660-12 of 6.03.2000 – Rev.1 of 21.01.2008
953.D8660-13 of 30.12.2004
953.D8660-31 of 8.05.2007 – Rev.1 of 18.02.2008
953.D8660-32 of 8.05.2007 – Rev.1 of 18.02.2008
- (17) Special conditions for safe use: symbol X
- The layer of dust accumulated on the housing shall not exceed 5 mm.
 - The ignition temperature of the dust shall be higher than 185°C
 - The setting of the protective device to the limit temperature ensuring the temperature class shall be realised for each apparatus under the responsibility of the manufacturer. Furthermore this device shall be sealed and its setting shall not be modified later.
 - The temperature sensor of the protective device shall be placed as nearest as possible to the tube containing the heating elements.
 - When the apparatus is energised the tube containing the heating elements shall be completely immersed in the liquid – the depth of immersion above the tube is at least 50 mm.
 - The values of the power dissipated by the heating elements mentioned in the table (page 2) cannot be exceeded
- (18) Essential Health and Safety Requirements: covered by the standards listed at 9 and by the descriptive documents of the manufacturer

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP08ATEX009X/1

(14) Equipment: housing for electrical heating apparatus type D-8660

(15) Subject to the variation:

To allow the manufacturing of this equipment under the name of the company JEVI/SA located at Godthaabsvej 7 – 7100 Velje - Denmark

Marking : Unchanged except the addition of the name and address of the mother company

Eventual Prescriptions :

Ambient temperature range: $-30^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$

(16) Report n°09102 of 5.10.2009 (5 pages) completed by the descriptive documents below:

The drawings

953.D8615-12 of 2.09.2009

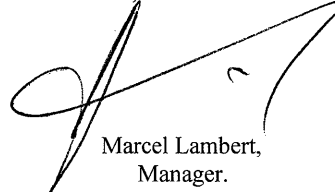
953.D8660-31 of 8.05.2007 – Rev.2 of 2.10.2009

953.D8660-32 of 8.05.2007 – Rev.2 of 2.10.2009

(17) Special conditions for safe use: unchanged

(18) Essential Health and Safety Requirements: covered by the standards listed at point 9 of the initial certificate and by the descriptive documents of the manufacturer.

Colfontaine, 07.10.2009



Marcel Lambert,
Manager.

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
VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP08ATEX009X/2

(15) Equipment: Housing for electrical heating apparatus type D-8660.

Subject of the variation

- To permit the ambient temperature range $-50\text{ °C} \leq T_a \leq +50\text{ °C}$.
- To permit the use of ceramic elements up to 57 mm diameter with a tube of 63 mm diameter.
- To permit the updating of the certificate according to the latest edition of the standards in force.

Marking: Unchanged, except the code «  II 2 GD / Ex de IIC T6 to T1 / Ex tD A21 IP66 T110°C »
wich becomes «  II 2 G - Ex de IIC T6...T1 Gb /  II 2 D - Ex tb IIIC T110°C Db».

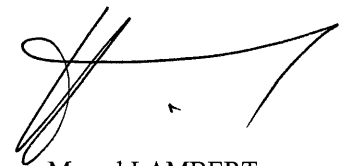
Eventual prescriptions: Unchanged.

(16) Report N° 12033 completed by 20 documents.

(17) Special conditions for safe use: Unchanged.

(18) Essential Health and Safety Requirements: Unchanged.

Colfontaine, the 12.12.2012.



Marcel LAMBERT,
Director.

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