



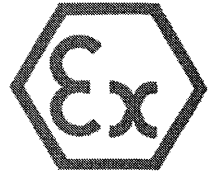
**Institut scientifique
de service public**

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Recherche - Analyses
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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: **ISSeP07ATEX040X**
- (4) Equipment or protective system: Immersion Heater type D-8800.
- (5) Applicant – Manufacturer – ~~Authorized representative in the Community:~~
JEVI A/S SINUS JEVI ELECTRIC HEATING B.V.
- (6) Address: Godthabsvej Nijverheidsweg
DK 7100 Vejle 1671 GC Medemblik
DANMARK THE NETHERLANDS
- (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 n° 07059.
- (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: 2004 (IEC 60079-1: 2003)
EN 60079-7: 2007 (IEC 60079-7: 2006)
- (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 / Ex ed [ia] IIC T6 to T1

Colfontaine, the 19.12.2007

Marcel Lambert,
Manager.

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(13)

SCHEDULE


(14)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP07ATEX040X(15) Description of the equipment or protective system

- Immersion Heater type D-8800.
- Temperature class: the maximum allowable power dissipated by the Heating Element in accordance with the temperature class is indicated in the table here below.

Temperature Class	Temperature setting of the Thermostat (°C)					
	Inert Liquids	Gases				
	Power dissipated by Heating Element	Power dissipated by Heating Element				
	7.5 W/cm ²	2.0 W/cm ²	1.5 W/cm ²	1.0 W/cm ²	0.5 W/cm ²	0.2 W/cm 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	-	-

Authorized variations: NoneMarking

- Name or registered trade mark and address of the manufacturer.
- Manufacturer's type identification.
- Serial Number.
- Year of manufacture.
- Specific marking of protection :  II 2 G
- Code: Ex ed [ia] IIC T6 to T1
- Indication of the testing station followed by the certificate reference and by the symbol X.
- Rated voltage and current.
- Degree of protection IP66 (optional).
- Ambient temperatures: -20°C to +50°C
- Additional marking required by the applicable standards for the construction of the electrical apparatus.

Routine verifications and tests (Clause 27 of IEC 60079-0)

- The manufacturer shall make the routine verifications and tests necessary to ensure that the electrical apparatus produced complies with the specification submitted to the testing station together with the prototype or sample.
- He shall also perform the routine test 7.1 of IEC 60079-7 (electric strength test – AC & DC voltage).

Eventual prescriptions

According to the Notice 'Installation, Operating and Maintenance Instructions'.

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SCHEDULE

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP07ATEX040X

- (16) Report n° 07059 (18 pages), completed by 8 documents.
- (17) Special conditions for safe use (symbol X)
- The setting of the protective device to the temperature limit, ensuring the temperature class, shall be made for each apparatus under the responsibility of the manufacturer. The protective device shall be sealed and its setting shall not be modified later.
 - Intrinsic safety parameters indicated in the certificates shall be respected.
 - Cable entries will be of a type not less than IP66.
- (18) Essential Health and Safety Requirements
- The Essential Health and Safety Requirements are covered by:
- The conformity to the International Standards IEC 60079-0, IEC 60079-1 & IEC 60079-7.
 - All safety measures taken by the manufacturer and described in the descriptive documentation listed at (16).

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP07ATEX040X/1

(15) Equipment

- Immersion Heater type D-8800.

Subject of the variation

- Maximum voltage of 1100 Volt is raised to 1250 Volt.
New voltage range is now 230 Volt to 1250 Volt.

Marking: Unchanged.

(16) Report n°11032 completed by 1 document.

(17) Special conditions for safe use: Unchanged.

(18) Essential Health and Safety Requirements: Unchanged.

Colfontaine, 04.08.2011.



M. LAMBERT,
Manager.

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This document may not be used without the original certificate

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP07ATEX040X/2

(15) Equipment

- Immersion Heater type D-8800.

Subject of the variation

- The code is now in accordance to the standard EN 60079-0: 2009.
- The range of ambient temperatures is now $-40\text{ °C} \leq T_a \leq +50\text{ °C}$.
- Various sizes of the junction box are allowed.

Marking: Unchanged, except:

- The codes:
 - Ex d e [ia] IIC T6 to T1 Gb (IS circuit)
 - Ex d e IIC T6 to T1 Gb (Ex d Thermostat)
- The range of ambient temperatures: $-40\text{ °C} \leq T_a \leq +50\text{ °C}$.

(16) Report N° 11117 completed by 10 documents.

(17) Special conditions for safe use: Unchanged.

(18) Essential Health and Safety Requirements: Unchanged.

Colfontaine, 15.03.2012

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Marcel LAMBERT,
Director.

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP07ATEX040X/3

(14) Apparatus

- Immersion heater D 8800


(15) Description of the variation

- To permit the updates of standards:

From: EN 60079-0: 2006 To : EN 60079-0:2012+A11:2013
EN 60079-1 : 2004 EN 60079-1 : 2014
EN 60079-7 : 2007 EN 60079-7 : 2015

- Change the ambient temperature range according to the used components
 - Elimination of spacer tubes due to the use of orbital welding
 - Inclusion of the text contained in the letter 09/CLG/mgl/0/0484

Marking: Unchanged, except the codes:

-  II 2 G Ex eb IIC T6...T1 Gb
Ex db eb IIC T6...T1 Gb
Ex eb [ia] IIC T6...T1 Gb
Ex db eb [ia] IIC T6...T1 Gb

Ambient temperature range :

- See Symbol X

The busbars are only suitable for use at ambient temperatures of -40°C to +50°C

Eventual prescriptions: completed by:

The temperature classification may be invalidated when the heating elements are completely immersed in the inert fluid. It is the responsibility of the manufacturer, installer and / or user, as appropriate, to ensure that an explosive atmosphere doesn't occur inside the vessel

When the heaters are immersed in the inert fluid the values of "Watt Density" are also depending on the process conditions of the system – free convection or forced flow –to see documents attached.

The temperature classification under the above conditions can be the temperature of the inert fluid, the heating element surface temperature or the hottest spot of the package.

The table of temperature setting in relation with the temperature class of the device in the description is only valid in case of free convection heater.

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSEP07ATEX040X/3

(16) Report N° 15136 of the 12.10.2015 completed by 17 documents.
D8800 VARIATION – Descriptive notes
EC TYPE EXAMINATION ISSEP07ATEX040X and variation 1 and 2 and the associated reports
07059, 11032 and 11117
Drawing No: 953.D8800-01 rev 1: IMMERSION HEATER D8800 Class: EEx e IIC IP66 dated of
19-09-2003
Drawing No:953.D8800-50 rev 0: EXTERNAL JUNCTION BOXES FOR TRANSMITTERS of 18-
11-2003
Drawing No:953.D6150-11 rev 1: HEATING ELEMENTS & SENSOR MOUNTING METHODS
IN
FLANGES of 14-09-2015
Drawing No 953D8615-00 rev 9 Ex NAME PLATES D-8800 ATEX VERSION of 1-10-2015
Drawing No. 953.D8800-20 rev 0: IMMERSION HEATER D-8800 APPLICATION
INSTRUCTIONS of 23-11-2011
Drawing No 953.D8800-21 rev 0: IMMERSION HEATER D-8800 MOUNTING ORIENTATIONS
of 22-11-2012

List of components D8800 of 10 november 2015
Mails of 24, 28; 29 and 30 September 2015

(17) Special conditions for safe use: Symbol X: completed by the ambient temperature range depends
on the ATEX certified enclosures and components that are used and must be indicated on the
marking.
(manufacturer's responsibility)

The special conditions for safe use concerning the certified enclosures and components depends on
the associated certificates

(18) Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by:

- The conformity to the Standards listed at (15).
- All safety measures taken by the manufacturer and described in the descriptive documentation
listed at (16).

Colfontaine, the 14.12.2015.

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