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SINUS
JEVI 

EXPLOSIEVEILIGE INSTRUMENT GASVERWARMER - TYPE D-7800

Handleiding

EXPLOSION-PROOF INSTRUMENT GAS HEATER - Type D-7800

Manual



NL **INHOUD**

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1 **Algemeen**

- Het aansluiten dient te gebeuren door gekwalificeerd personeel.
- Verwijder voorzichtig de verpakking en controleer de unit op eventuele transportschade.
- Controleer alvorens de heater aan te sluiten of de voedingsspanning op het typeplaatje correspondeert met de aansluitspanning.
- Alle regels, verordeningen en voorschriften op het moment van plaatsen dienen in acht te worden genomen.
- De heater dient zorgvuldig te worden geïnstalleerd en voor in bedrijfstelling dienen alle aansluitklemmen op spanning te worden gecontroleerd.
- Bij wijzigingen welke niet door Sinus Jevi Electric Heating, noch door een erkend agent zijn gedaan zal de geldigheid van het certificaat en garantie doen vervallen.

2 **Installatie en montage**

- Controleer alvorens men het element installeert of het geschikt is voor toepassing binnen het betreffende gezoneerde gebied (raadpleeg hiervoor de NEN-EN-60079-14 in relatie tot het typeplaatje).
- De toe- en afvoerleiding van het element dient spanningsvrij middels de bijgeleverde Swagelok koppelingen in het leidingstelsel van het instrumenten-gassysteem te worden aangesloten een en ander volgens Swagelok installatie voorschriften.
- Indien de werkdruk van het instrumentengas systeem hoger kan worden dan 80 bar, dienen drukbeveiligingsmaatregelen stroomopwaarts van het element genomen te worden, zodanig dat de druk de 80 bar niet kan overschrijden.
- Sluit de 3 aderig rubber kabel aan op de aanwezige spanningsvoorziening in een deugdelijke klemmenkast of werkschakelaar. In geval deze aansluiting zich bevindt in een gezoneerd gebied dient deze van een explosieveilg type te zijn.
- Indien het element in een Intertec kast (kunststof instrumentatiekast) wordt geïnstalleerd dient de kabel via een deugdelijke beschermhuls of invoerwartel buiten de kast geleid te worden.

Noot:

Men is alleen bevoegd tot het installeren van Swagelok koppelingen indien men in het bezit is van een geldige Swagelok fitterspas.

3 **Demontage**

Bij demontage dient men zich ervan te overtuigen dat het element spanningsloos en drukloos is alvorens de Swagelok koppelingen los te draaien.

4 **In bedrijfstelling**

Controleer na installatie de Swagelok koppelingen op lekkage.

Controleer de hoogte van de aangelegde spanning. Deze mag niet hoger zijn dan 34 VAC. bij T3 uitvoering. Bij T5 is dit 24 VAC.

De omgevingstemperatuur waarin het element wordt gebruikt mag de 40°C niet overschrijden.

NL

5 Markering

Het element is geschikt voor gebruik voor:

Ex II 2G Ex e II T5 Gb voor 25 Watt 24 Volt (100°C max.)

Ex II 2G Ex e II T3 Gb voor 50 Watt 34 Volt (141°C max.)

6 Onderhoud

- Alle voorkomende lokale veiligheidsvoorschriften dienen te allen tijde te worden nageleefd.
- Alvorens en tijdens de uitvoering van onderhoudsactiviteiten, dient u er zeker van te zijn dat er geen gevaarlijke stoffen aanwezig zijn.
- Het apparaat moet geheel worden losgekoppeld van de elektrische voeding voor en tijdens onderhoudsactiviteiten.
- Alle beschadigingen of defecten dienen direct aan Sinus Jevi Electric Heating kenbaar gemaakt te worden.
- Bij apparatuur gecertificeerd voor gebruik in gevaarlijk gebied dient de EN60079-17 (tabel 1) in acht te worden genomen in aanvulling op de volgende aanbevelingen.

3 maandelijks

- a.) Controleer het apparaat op zichtbare defecten.
- b.) Wees er zeker van dat het oppervlak schoon is.

6 maandelijks

- a.) Haal de spanning van de verwarmers af.
- b.) De gasverwarmer dient schoon en droog te zijn.
- c.) Wees er zeker van dat de aansluitingen intact en veilig zijn.
- d.) De isolatie van het verwarmingselement dient tenminste 10 MegaOhm te zijn.
- e.) Continuïteit van aarding moet worden gewaarborgd tussen aardpunt en hoofdaarde.

Jaarlijks

- a.) Controleer alle bovenstaande punten
- b.) Controleer het element op storing of lage isolatieweerstand.

Indien de gasheater voor langer dan 3 maanden ongebruikt blijft, houdt de 6 maandelijkse onderhoudsinstructie aan alvorens in gebruikname.

INDEX**GB**

1	General
2	Installation and mounting
3	Dismounting
4	Operation
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1 General

- All work should be carried out by suitably qualified personnel.
- Carefully remove all protective packaging and visually inspect the unit for any transit damage.
- Before connecting ensure that the supply voltage corresponds with that specified on the rating label.
- All prevailing rules, regulations and bylaws in force at the time and place of installation must be taken into consideration.
- The heater must be securely fixed and all terminations checked for tightness before energising.
- Any modification not carried out by Sinus Jevi Electric Heating B.V. or its approved agent will invalidate certification and warranty.

2 Installation and mounting

- Before installation and mounting ensure that the heater is suitable for application in the explosion proof zone for which it is intended. Refer to the label for data on the explosion proof classification.
- The inlet and outlet tube must be connected free of stresses and tensions by inserting the Swagelok couplings into the gas system in accordance with the Swagelok installation instructions.
- When the working pressure can exceed 80 bar, pressure safety measures must be taken on the upstream side of the heater. This to prevent the pressure exceeding the maximum allowable 80 bar level.
- Connect the 3-core cable to the available electrical supply and place this in a sound terminal enclosure or safety switch. In case of connecting in a hazardous area the terminal enclosure or safety switch must be explosion-proof.
- In case of installing the heater inside an enclosed instrument panel the cable transition to the outside of the enclosure has to be carried out by making use of a reliable grommet or cable gland.

Note:

Installation of the Swagelok couplings is only permitted by qualified personnel which are in the possession of a Swagelok fitter certificate.

3 Dismounting

When dismantling the heater, ensure that the heating system is depressurised before loosening the Swagelok couplings.

4 Operation

After installing the heater check the Swagelok couplings for leakage.

Check the supply voltage. The heater is suited for use in a T5 zone with a maximum allowable tension of 24 Volts and in a T3 zone the maximum allowable tension is 34 Volts.

The D-7800 gasheater is designed to operate in a maximum ambient temperature of 40°C.

5 **Marking**

The marking will be as follows:

Ex II 2G Ex e II T5 Gb for 25 Watt 24 Volt (100°C max.)

Ex II 2G Ex e II T3 Gb for 50 Watt 34 Volt (141°C max.)

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6 **Maintenance**

- All prevailing site safety regulations shall be adhered to at all times.
- Before and during the performance of any maintenance activity, it must be ensured that there are no hazardous gases present.
- Equipment is to be fully isolated from the electrical supply before and during any activities being performed.
- Any damage or faults should be notified to Sinus Jevi Electric Heating B.V. immediately.
- For equipment certified for use in hazardous areas reference should be made to EN60079-17 (table 1) in addition to the following recommendations.

3 Monthly

- a.) Inspect the equipment for external damage.
- b.) Ensure that the surface of the heater is clean.

6 Monthly

- a.) Isolate the electrical supply.
- b.) The heater should be clean and dry.
- c.) Ensure the connections are intact and secure.
- d.) Heating element insulation resistance to be at least 10 MegaOhm
- e.) Earth continuity must be maintained between earth point and main structure

Annually

- a.) Check all above
- b.) Check for element failure or low insulation resistance

If the gasheater is being left unused for a period longer than 3 months, carry out the 6 month maintenance instruction before energising.

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et site de Liège :**
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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: **ISSeP07ATEX041X**
- (4) Equipment or protective system: Gas heater type D-7800.
- (5) Applicant – Manufacturer – ~~Authorized representative in the Community:~~
SINUS JEVI ELECTRIC HEATING B.V.
- (6) Address: Nijverheidsweg
1671 GC Medemblik
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° 07060.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0: 2006 (IEC 60079-0: 2004)
EN 60079-7: 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 e II T5 or T3

Colfontaine, the 19.12.2007

Marcel Lambert,
Manager.

INSTITUT SCIENTIFIQUE DE
SERVICE PUBLIC
Zoning A. Schweitzer,
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This certificate may only be reproduced in its entirety and without any change, schedule included



RÉGION WALLONNE

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SINUS Sinus Jevi Electric Heating B.V.
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1671 NT Medemblik
The Netherlands
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**INSTALLATION, OPERATION AND
MAINTENANCE INSTRUCTIONS**

TYPE D-7800

GB



(13)

SCHEDULE

(14)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP07ATEX041X

(15)

Description of the equipment or protective system


- Gasheater type D-7800.
- The Gasheater consists of:
 - a stainless steel tube for the gas circulation;
 - a tubular heating element with a permanently connected cable.
- The assembly is completely moulded and protected by a stainless steel enclosure.

Authorized variations

The apparatus may be powered:

- either 24 V/50 Hz - 25 W: Execution 100°C (T5)
- either 34 V/50 Hz - 50 W: Execution 141°C (T3)

Marking

- Name or registered trade mark and address of the manufacturer.
- Manufacturer's type identification.
- Serial Number.
- Year of manufacture.
- Code: Ex e II T5 or T3
- Specific marking of protection :  II 2 G
- Indication of the testing station followed by the certificate reference and by the symbol X.
- Rated voltage and current.
- 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).

Eventual prescriptions

According to the Notice 'Installation, Operating and Maintenance Instructions for Sinus Jevi Electric Heating natural gasheater type D 7800'.

(16) Report n^r 07060 (23 pages), completed by 9 documents.(17) Special conditions for safe use (Symbol X)

- The permanently fitted cable will be connected in a box of an ATEX/EEEx/Ex type.
- Maximum ambience is 40°C; maximum temperature of the process being 60°C.

(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 60079-7.
- All safety measures taken by the manufacturer and described in the descriptive documentation listed at (16).

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EC-DECLARATION OF CONFORMITY

Sinus-Jevi Electric Heating B.V.
Aambeeld 19
1671 NT Medemblik
The Netherlands

Tel: +31 (0)227 549100
Fax: +31 (0)227 549150

Declare our sole responsibility that the products

Explosion proof electric gas heater type D-7800.

Approved by: Certificate number **ISSeP 07 ATEX 041X**
Production Quality Assurance System **LCIE 07 ATEX Q 8010**
Notified body number **0081**

With product marking:  II 2G Ex e II T3 (141°C) Gb or Ex e T5 (100°C) Gb

to which this declaration relates is in conformity with the following

EN 60079-0:2009 Explosive atmospheres: Equipment - General requirements.

EN 60079-7:2007 Explosive atmospheres: Equipment protection by increased safety "e".

If installed in accordance with manuals, drawings and applicable specifications comply with the following EC directives

- | | |
|--------------------------|-------------------------|
| 1. Low Voltage Directive | (Directive 2006/95/EC) |
| 2. EMC Directive | (Directive 2004/108/EC) |
| 3. ATEX 100a | (Directive 94/9/EC). |

It remains the responsibility of the end user to install and operate the appliance according to the rules and regulations that are applicable.

Medemblik, May 8, 2012
Sinus-Jevi Electric Heating B.V.


J.P. Roos
Engineering Manager

