Sinus Jevi Electric Heating B.V.
Aambeeld 19
1671 NT Medemblik
The Netherlands
tel. +31 (0)227-549 100
fax. +31 (0)227-549 150
website: www.sinusjevi.com

EXPLOSIEVEILIGE THERMOSTAAT - Type EJB - 8640

Handleiding

EXPLOSION-PROOF THERMOSTAT - Type EJB - 8640

Manual

NL

Inhoud

1.0 Product omschrijving

Explosieveilige thermostaat type:	EJB - 8640 -A (staal) - B (RVS)
Certificering explosieveiligheid:	Ex d IIC T6 Gb Ex tb IIIC T110°C Db
Normering:	EN/IEC 60079-0, EN/IEC 60079-31
EG richtlijn	94/9/EC
Certificaatnummer:	ISSeP 08 ATEX 008X
Beschermingsklasse:	IP66
Tekening:	954.030.000

2.0 Installatie instructies

De gebruiker moet er voor zorgdragen dat zijn medewerkers getraind en bevoegd zijn en de juiste installatie en ingebruikname procedures zullen opvolgen om de veiligheid te garanderen. De werkplek moet goed onderhouden en veilig zijn. Zorg ervoor dat de verwarming goed is aangesloten in de daarvoor bestemde ruimte door gekwalificeerd personeel.
Installatie dient te geschieden in overeenstemming met de voorschriften van de NEN 1010 en EN/IEC 60079-1 of gelijkwaardig.

2.1 Thermostaat installeren

Voordat u de thermostaat uitpakt overtuig uzelf ervan dat de verpakking in goede staat bij u is binnengekomen. Elke beschadiging moet aan de chef gemeld worden en aanvullend aan Sinus Jevi Electric Heating B.V.
Na het verwijderen van de verpakking controleer de inhoud op schade, en zo ja, meldt dit aan de chef en aanvullend aan Sinus Jevi Electric Heating B.V.
Refereer naar de tekening voor de juiste wijze van monteren. De thermostaat is geschikt voor montage op een vlakke ondergrond.

- Open het aansluithuis door het deksel los te schroeven.
- Sluit de aansluitkabel aan op de klemmen van de thermostaat in overeenstemming met het aansluitschema.
- Sluit de aarddraad aan op de aardbout aan de binnenkant van het aansluithuis.
- Volg de instructies, als deze aanwezig zijn voor het installeren van de kabelinvoerwartel.
- Stel de thermostaatknop af op de juiste temperatuur.

Attentie!
Open het aansluithuis niet wanneer er nog spanning op de klemmen staat.

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3.0 In bedrijf stellen

Voordat u de thermostaat in bedrijf gaat stellen controleer de volgende punten:

1. De thermostaat goed is aangesloten
2. De elektrische bedrading in overeenstemming met de daarvoor geldende normen en richtlijnen is uitgevoerd en de (ruimte) verwarming op de juiste wijze is aangesloten.
3. De aarddraad is aangesloten en indien nodig de externe aarding tussen aansluithuis en de aarde is aangesloten, dit ter voorkoming van elektrostatische ontlading.
4. In het aansluithuis mag de temperatuur nooit boven de 80°C komen.

Attentie!
De gebruikte materialen in overeenstemming zijn met de bedrijfscondities.

4.0 Onderhoudsinstructies

Als de thermostaat op vakkundige wijze is aangesloten is de thermostaat onderhoudsvrij.
Wij adviseren echter om de volgende punten eens per jaar te controleren:

1. Controleer de thermostaat op beschadigingen.
2. Controleer de aansluitingen in het aansluithuis.
3. Reinig het oppervlak van de thermostaatbuis zodat deze vrij van verontreiniging is.
4. Controleer of de thermostaat schakelt op de ingestelde ruimtetemperatuur.
5. Controleer de ingestelde temperatuur van de thermostaat.
6. Indien de verwarming het niet doet, controleer de maximaalbeveiliging van de verwarming (indien aanwezig) en reset d.m.v. de handreset.

5.0 In gebruik nemen

Voordat u de thermostaat in bedrijf gaat stellen controleer de volgende punten:

1. De thermostaat goed is aangesloten.
2. De aarddraad is aangesloten en indien nodig de externe aarding tussen aansluithuis en de aarde is aangesloten, dit om elektrostatische ontlading te vermijden.
3. De elektrische bedrading in overeenstemming met de daarvoor geldende normen en richtlijnen is uitgevoerd en de (ruimte) verwarming op de juiste wijze is aangesloten.
4. Of alle elektrische verbindingen tussen thermostaat en verwarming in orde zijn.

5.1 Voordat u de thermostaat onder spanning zet:

1. Controleer de voedingsspanning.
2. Controleer de regelspanning
3. Doorloop het systeem onder werkomstandigheden.
4. Controleer de verwarming op temperatuur.

6.0 Garantie

Er is recht op 1 jaar functionele garantie op alle onderdelen.

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Contents

1.0 Description of equipment

Explosion proof thermostat type	D-8640 - A (steel) - B (stainless steel).
Hazardous area certification:	Ex d IIC T6 Gb
	Ex tb IIIC T110°C Db
Applied standards:	EN/IEC 60079-0, EN/IEC 60079-31
	EC Directive 94/9/EC
Certificate number:	ISSeP 08 ATEX 008X
Ingress protection:	IP66

2.0 Installation instructions

The user must ensure that his employees are fully trained and supervised in the proper installation and working procedures to ensure their safety. The work station must be maintained in safe condition.
Ensure that the heater is correctly installed in a suitable location by technical qualified personal.
Installation has to meet the requirements of NEN 1010 and EN/IEC 60079-1 or equal standards.

2.1 Thermostat installation

Before unpacking the heater ensure that all items are available and that all crates or packaging are in good condition and undamaged. Any damage must be reported to the site manager and subsequently to Sinus-Jevi Electric Heating B.V.
After removing the package check all items for damage, if any, report to the site manager and subsequently to Sinus-Jevi Electric Heating B.V.
Refer to the dimensional sketch for the precise data and indication of fitting position. The thermostat is suitable for surface mounting on a flat surface.

Open the junction box by loosening the setscrew. Next unscrew the coverplate.

Note! When unscrewing the coverplate care must be taken not to damage the screw thread.
Before reaching the terminals and thermostats the window plate must be removed.
Connect the power cables to the terminals and to the earthing terminals.
Connect a protective conductor to the earthing bolt on the outside of the junction box.
Follow the instructions if these are available for installing and using the cable glands.
Adjust the thermostat knob for the correct temperature adjustment.
Replace the window plate and screw the cover plate back on. If necessary grease the screw thread with a silicone grease type Molykote Longterm W2.

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Important!
Do not open the junction box when energised.

3.0 Operation instructions

Before initial start-up of the thermostat it should be checked whether:

1. The thermostat has been properly installed.
2. The electric connection has been performed in accordance with the relevant rules and regulations and the (space) heater has been properly connected.
3. The protective conductor (PE) has been connected and if necessary the external connection between housing and ground has been effected, e.g. for avoiding electrostatic discharging.
4. In the junction box no temperature exceeding 80°C is admitted.

Important!
The materials used where chosen in accordance with the operating conditions.

4.0 Maintenance instructions

If professionally connected the thermostat will be maintenance free.
However we advice to check the following items after 1 year operation:

1. Check the thermostat for damage.
2. Check the connections inside the junction box.
3. Clean the surface of the thermostat sensor bulb so it will remain free from dirt build-up.
4. Check whether the thermostat is still switching on the ambient temperature.
5. Check the setting of the thermostat.
6. Should the heater not function check the maximum safety thermostat on the heater and reset the manual button.

5.0 Start-up / commissioning

Before initial start-up of the thermostat it should be checked whether:

1. The thermostat has been properly installed.
2. The protective conductor has been connected and if necessary the external connection between housing and earth has been effected, e.g. for avoiding electrostatic discharging. (Earthing bolt on support of the heater).
3. The electrical connection has been done in accordance with the relevant regulations and wiring schematics.
4. If all electrical connections between thermostat and heater are correct.

5.1 Before energising the thermostat:

1. Check the supply voltage.
2. Check the control voltage.
3. Run the system on working conditions.
4. Check the heater on temperature.

6.0 Warranty

A 1 year warranty is provided on all functional parts.

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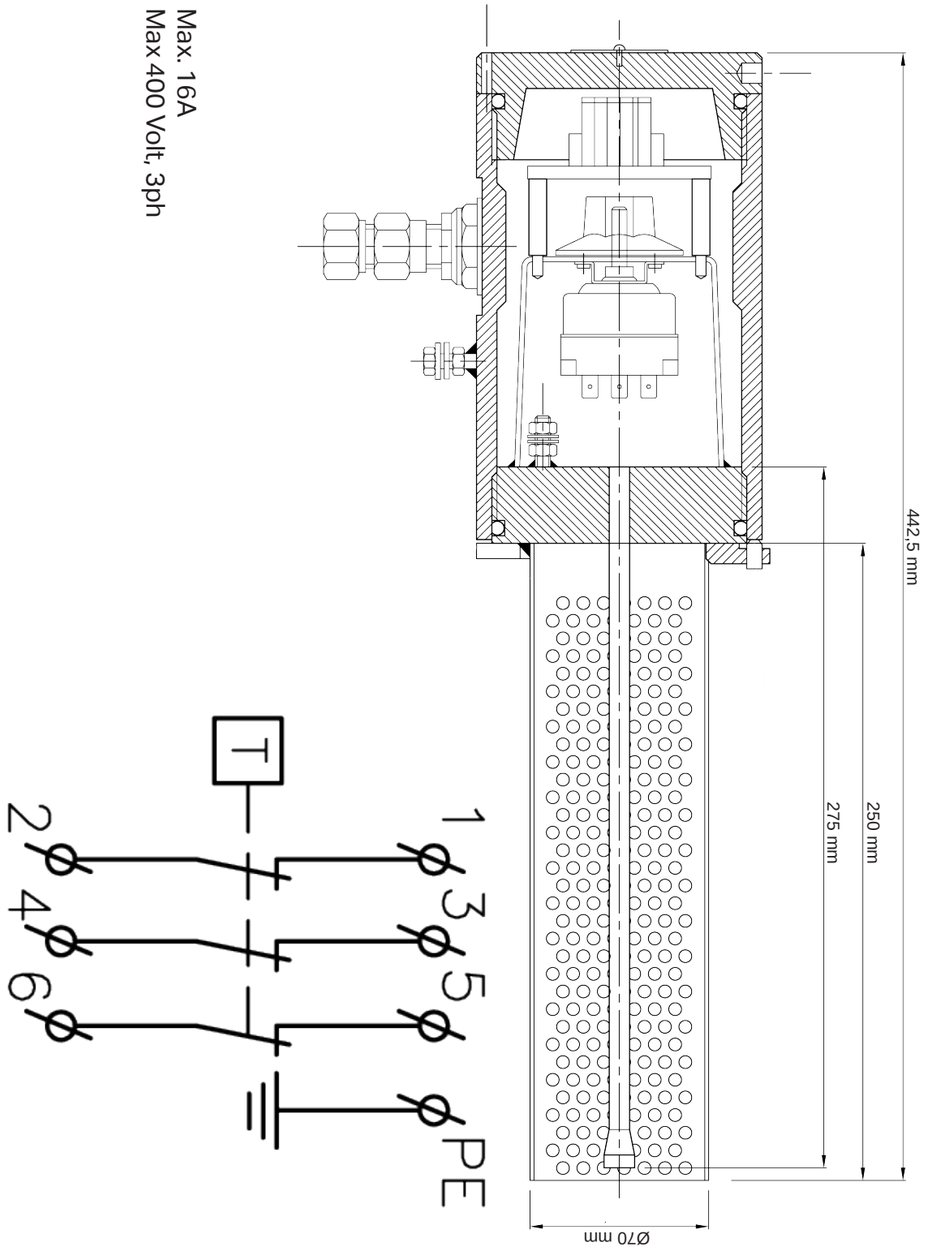
7.0 General arrangement drawing



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ISSeP
Institut scientifique de service public
Métrologie environnementale
Recherche - Analyses
Essais - Expertises

Siège social et site de Liège :
Rue du Chéra, 200
B-4000 Liège
Tél : +32(0)4.229.83.11
Fax : +32(0)4.252.46.65

Site de Colfontaine :
Zoning A. Schweitzer,
rue de la Platinerie
B-7340 Colfontaine
Tél : +32(0)65.61.08.11
Fax : +32(0)65.61.08.08

e-mail :
direction@issep.be
site web :
http://www.issep.be

(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: **ISSeP08ATEX008X**

(4) Equipment or protective system: housing for electrical heating apparatus
Type: D-8640

(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 06090

(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:
Ex 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)
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808

Marcel Lambert,
Manager.

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RÉGION WALLONNE

SINUS JEVI
Sinus Jevi Electric Heating B.V.
Aambeeld 19
1671 NT Medemblik
The Netherlands
tel. +31 (0)227-549 100

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

TYPE EJB D-8640

GB

(13) SCHEDULE

(14) **EC TYPE EXAMINATION CERTIFICATE No ISSeP08ATEX008X**

(15) Description of the equipment :
Electrical heating apparatus allotted to the heating of inert liquids and gases. This apparatus bears the type designation D-8640 and consists of:
- a certified flameproof connection box
- certified electrical heating elements
- a manually rearmed protective device

The length "H" (to see drawing 953.D8640-01) 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/cm²)	Power dissipated by the heating element (W/cm²)				
	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 ISSeP08ATEX008X

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° 06090 of 5.03.2008 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.D8640-01 of 29.08.2002
953.D8640-03 of 9.12.2002
953.D8640-05 of 10.01.2005
953.D8640-11 of 11.05.2000
953.D8640-12 of 24.10.2000 – Rev.1 of 21.01.2008
953.D8640-13 of 20.05.2005
953.D8640-20 of 8.12.2003
953.D8640-22 of 7.05.2007 – Rev.1 of 18.02.2008
953.D8640-23 of 7.05.2007 – 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

SINUS JEVI
Sinus Jevi Electric Heating B.V.
Aambeeld 19
1671 NT Medemblik
The Netherlands
tel. +31 (0)227-549 100

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

TYPE EJB D-8640

GB

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP08ATEX008X/1

(14) Equipment: housing for electrical heating apparatus type D-8640

(15) Subject to the variation:
To allow the manufacturing of this equipment under the name of the mother company JEVI A/S located at Godthaabsvej 7 – 7100 Vejle – Denmark

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

Eventual Prescriptions :
Ambient temperature range: -30°C ≤ Tamb ≤ +50°C

(16) Report n°09103 of 5.10.2009 (5 pages) completed by the descriptive documents below:
The drawings
953.D8615-11 of 10.09.2009
953.D8640-22 of 7.05.2007 – Rev.2 of 2.10.2009
953.D8640-23 of 7.05.2007 – 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.

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer - B 7340 Colfontaine (Wasmes)
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808

This document may not be used without the original certificate

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VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP08ATEX008X/2

(14) Apparatus: Housing for electrical heating apparatus type D-8640.

(15) Subject of the variation

- To permit the extension of the ambient temperature range. This one becomes: -50 °C ≤ Ta ≤ +50 °C.
- To permit the updating of the certificate according to the latest edition of the standards in force. (IEC 60079-0: 2011 – EN 60079-1: 2007 – EN 60079-7: 2007 – EN 60079-31: 2009)

Marking: Unchanged, except the code « Ex de IIC T6 to T1 / Ex tD A21 IP66 T110°C » which is now « Ex d IIC T6…T1 Gb / Ex tb IIIC T110°C Db ».

Eventual prescriptions: Unchanged.

(16) Report N° 12032 completed by 10 documents.

(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.

Colfontaine, 27.08.2012.

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer, rue de la Platinerie
B-7340 COLFONTAINE (Wasmes)
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808
colfontaine@issep.be

Marcel LAMBERT,
Director.

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SINUS JEVI
Sinus Jevi Electric Heating B.V.
Aambeeld 19
1671 NT Medemblik
The Netherlands
tel. +31 (0)227-549 100

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

TYPE EJB D-8640

EU Declaration of Conformity

We

Sinus Jevi Electric Heating BV
Aambeeld 19
1671 NT Medemblik
The Netherlands

Tel: +31 (0227) 549100
info@sinusjevi.com

declare under our sole responsibility that the product

Explosion Proof Electric Heating Appliance
Model / type: **D-8640**

Approved by: Certificate number **ISSeP 08 ATEX 008X**
Product Quality Assurance System **LCIE 16 ATEX Q 4010**
Notified body number **0081**

With product marking:  II 2G Ex d IIC T6…T1 Gb
II 2D Ex tb IIIC T110°C Db

is in conformity with the

Equipment for use in potentially explosive atmospheres ATEX 114 (Directive 2014/34/EU) and has been verified to comply with Directive 2011/65/EU (RoHS)

and the following harmonised standards have been applied:

IEC 60079-0:2011; EN 60079-1:2007; EN 60079-7:2007; EN 60079-31:2009

A number of listed standards have been superseded. The actual harmonised standards have been reviewed and bare no significant changes for this equipment.

EN 60079-0:2012 + A11:2013; EN 60079-1:2014; EN 60079-7:2015; EN 60079-31:2014

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

Issued in Medemblik,
On 8 July, 2016

J.P. Roos, Engineering Manager
Sinus Jevi Electric Heating B.V.

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