IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CML 22.0096X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2023-01-31		
Applicant:	**R Stahl Tranberg AS** Strandsvingen 6 4032 Stavanger **Norway**		
Equipment:	**Enclosure Heater TEF 9202, TEF 9207, TEF 9208, TEF 9209**		
Optional accessory:			
Type of Protection:	**Trace Heating "Ex 60079-30-1", Increased Safety "eb", Encapsulation "mb"**		
Marking:	Without Thermostat Ex 60079-30-1 IIC T* Gb With Thermostat Ex 60079-30-1 eb mb IIC T* Gb *Temperature Class will be assigned based on separately certified equipment that is used; refer to Certificate Annex. Ambient Temperature Range: -50°C ≤Ta≤+50°C		

Approved for issue on behalf of the IECEx Certification Body:	**S. Roumbedakis**
Position:	**Technical Manager**
Signature: (for printed version)	
Date: (for printed version)	2023-01-31

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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Certificate No.: **IECEx CML 22.0096X** Page 2 of 3

Date of issue: 2023-01-31 Issue No: 0

Manufacturer: **R Stahl Tranberg AS**
Strandsvingen 6
4032 Stavanger
Norway

Manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-18:2017 Edition:4.1	Explosive atmospheres - Part 18: Protection by encapsulation "m"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC/IEEE 60079-30-1:2015 Edition:1.0	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/CML/ExTR22.0241/00

Quality Assessment Report:

NO/NEM/QAR10.0006/11

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The enclosure heaters comprise a stainless-steel mesh, which encloses the self-regulating cables. The enclosure heaters can be provided with flying leads, or with a junction box and thermostat.

The enclosure heater uses the following certified parallel self-regulating heating cables:

- Thermon® KSX 20-2 OJ
- Raychem® 15/20 QTVR1
- Raychem® 15/20 QTVR2

Refer to Certificate Annex for full Product Description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to Certificate Annex

Annex:

Certificate Annex IECEx CML 22.0096X Issue 0.pdf

Annexe to: **IECEx CML 22.0096X Issue 0**

Applicant: **R. Stahl Tranberg AS**

Apparatus: **Enclosure Heater TEF 9202, TEF 9207, TEF 9208, TEF 9209**

Description

The enclosure heaters comprise a stainless-steel mesh, which encloses the self-regulating cables. The enclosure heaters can be provided with flying leads, or with a junction box and thermostat.

The enclosure heater uses the following certified parallel self-regulating heating cables:

• Thermon® KSX 20-2 OJ

• Raychem® 15/20 QTVR1

• Raychem® 15/20 QTVR2

The self-regulating heating cables are spliced together with the cold-cable using Splice-kit with Heat-shrinkable tubes/sleeves.

The stainless-steel heaters come in models TEF 9208, TEF 9209 and TEF 9202 0XX, and shall be installed inside an enclosure of IP min IP54. The TEF 9207 and TEF 9202 2XX have an IP rating of IP66.

Maximum withstand temperature, (Heater is de-energized, thermostat may be energized): +80°C.

Type	Cable	Version Description	Temp. regulation	Power @ 0°C	Power @ 0°C
TEF9207	KSX-20	X	X	X	X
TEF 9208	QTVR2				
TEF 9209	QTVVR1				
		0-230VAC Integrated power cable	0- N/A	0- 0W	0-0W
		1-230VAC Single with JB	1- -10°C	1-1000W	1-100W
		2-230VAC Single with JB and thermostat	2- -5°C	2-2000W	2-200W
		3-230VAC Double with JB	3. 0°C		3-300W
		4-230VAC Double with JB and thermostat	4- +5°C		4-400W
		5-120VAC Integrated power cable	5- +10°C		5-500W
		6-120VAC Single with JB	6- +15°C		6-600W
		7-120VAC Single with JB and thermostat	7- +20°C		7-700W
		8-120VAC Double with JB	8- +25°C		8-800W
		9-120VAC Double with JB and thermostat	9- +30°C		9-900W

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Enclosure heater Type TEF 9207, based on trace heater KSX-20, assign Temperature Class T3.
Enclosure heater Type TEF 9208, based on trace heater QTVR2, assign Temperature Class T4.
Enclosure heater Type TEF 9209, based on trace heater QTVR1, assign Temperature Class T4.

Type	Model	Voltage	Power
9202	010	240 V	50 W
9202	011	240 V	100 W
9202	050	120 V	50 W
9202	051	120 V	100 W
9202	210	240 V	50 W
9202	211	240 V	100 W

Enclosure heater Type TEF 9202 (model 0XX), based on trace heater QTVR2, assign Temperature Class T4.

Enclosure heater Type TEF 9202 (model 0XX), based on trace heater QTVR1, assign Temperature Class T4.

Enclosure heater Type TEF 9202 (model 2XX), based on trace heater KSX-20, assign Temperature Class T3.

Annexe to: **IECEx CML 22.0096X Issue 0**

Applicant: **R. Stahl Tranberg AS**

Apparatus: **Enclosure Heater TEF 9202, TEF 9207, TEF 9208, TEF 9209**

The equipment consists of the following Ex components and Ex equipment:

Ex component/Ex equipment	Manufacturer	Certificate Number	Standards
Self-regulating Heating Cables Type KSX 20-2 OJ	Thermon	CSANe 20ATEX3059 IECEx CSA 20.0006	IEC 60079-0:2017 Ed 7 IEC/IEEE 60079-30-1:2015 Ed 1
Self-regulating Heating Cables Type QTVR1 and QTVR2	nVent Thermal LLC	SGS 20ATEX0050X IECEx BAS 20.0013X	IEC 60079-0:2017 Ed 7 IEC/IEEE 60079-30-1:2015 Ed 1 IEC 60079-31:2013 Ed 2 IEC 60079-18:2017 Ed.4.1 IEC 60079-7:2017 Ed. 5.1
Thermostat Type: 50 23 92xx	R.Stahl Tranberg	Presafe18ATEX12359X IECEx PRE 18.0029X	IEC 60079-0:2017 Ed 7 IEC 60079-18:2014 Ed 4
Terminals, type UT2,5/UT6	Phoenix Contact	KEMA 04ATEX2048U IECEx KEM 06.0027U	IEC 60079-0:2017 Ed 7 IEC 60079-7:2017 Ed 5.1
Terminals, type USLKG10N	Phoenix Contact	KEMA 99ATEX4487U IECEx KEM 06.0035U	IEC 60079-0:2017 Ed 7 IEC 60079-7:2017 Ed 5.1

Notes:

- IECEx PRE 18.0037X. is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by IECEx CML 22.0096X.
- Where Presafe IECEx PRE 18.0037X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

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Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
ii. Each heater shall be subjected to a dielectric strength test in accordance with clause 5.1.2 of IEC/IEEE 60079-30-1.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

i. The heaters with permanently connected unterminated flying lead cable need an appropriate protection of the free end of the cable (for example terminated in an Ex-e junction box)
ii. The heaters with thermostat shall be connected to a circuit breaker with rated current max. 16A and a breaking capacity of min. 1500A.
iii. The supply circuit shall include an electrical protection device in conformity with IEC/IEEE 60079-30-1 cl. 4.4
iv. Enclosure heaters of type TEF 9208, TEF 9209 and TEF 9202 0XX shall be installed inside an enclosure with IP min. IP54 (this clause is not applicable for TEF 9207 and TEF 9202 2XX)

Additional Conditions for heater Type 9202:

v. Potential electrostatic charging hazard- For cleaning use moist cloth only! No solvent.
vi. If DIN-rail bracket is used for mounting on a rail, this shall be earthed.