

Zertifizierungsstelle, Zertifizierungssektor Explosionsschutz

Physikalisch-Technische Bundesanstalt, Postfach 33 45, 38023 Braunschweig

Pentair Thermal Management LLC
307 Constitution Drive
Menlo Park, CA 94025
USA

Your ref:	
Your letter dated	
Our ref:	3.5-435/2013-Rg
Our letter dated	
Name	H. Rüberg
Telephone	+49 531 592-3516
Fax	+49 531 592-3505
E-Mail	Juergen.Rueberg@ptb.de
Date	February 13, 2013

Change of Company Name

Dear Sir and Madam,

Due to the change of name the PTB-certified apparatus manufactured by
Tyco Thermal Controls LLC
are marked with the new name of the company
Pentair Thermal Management LLC.

The issued certificates incl. the conditions of contract are furthermore valid.

To prevent misunderstandings we propose to add a copy of this letter to the respective certificate.

Yours faithfully,

On behalf of PTB:



J. Rüberg



(1) EC-TYPE-EXAMINATION CERTIFICATE (Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**



(3) EC-type-examination Certificate Number:

PTB 09 ATEX 1116 X

(4) Equipment: Trace heating system, type .. QTVR2-CT

(5) Manufacturer: Tyco Thermal Controls LLC

(6) Address: 307 Constitution Drive, Menlo Park, CA-94025, USA

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment 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 the confidential assessment and test report PTB Ex 10-19252.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2006 EN 60079-7:2007 EN 60079-30-1:2007
EN 61241-0:2006 EN 61241-1:2004

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment 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 in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2G Ex e II T4

II 2D Ex tD A21 IP66 T130°C

Zertifizierungssektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 27, 2011

Dr.-Ing. U. Klausmeyer
Direktor und Professor



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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1116 X

(15) Description of equipment

The type QTVR2-CT trace heating system is used for heating pipes and tanks in zone 1.

It consists of a self-regulating product line QTVR2-CT heating cable and various termination, end sealing, and, if required, connection components.

List of components

Component	Type	Rated voltage, max. *	Ambient temperatures *
Heating cable	10QTVR2-CT	277 V	-50 ... +56 °C
	15QTVR2-CT	277 V	-50 ... +56 °C
	20QTVR2-CT	277 V	-50 ... +56 °C
Termination	C16-29	277 V	-50 ... +40 °C
	C25-21	277 V	-50 ... +40 °C
	C25-100	277 V	-50 ... +40 °C
	C-150	277 V	-50 °C
	CCON-25-100	277 V	-50 ... +40 °C
	JBM-100-...	277 V	-50 ... +56 °C
	JBM-100-L..	254 V	-40 ... +40 °C
	JBS-100-...	277 V	-50 ... +56 °C
	JBS-100-L..	254 V	-40 ... +40 °C
	JBU-100-...	277 V	-50 ... +56 °C
	JBU-100-L..	254 V	-40 ... +40 °C
End seal	E-06	277 V	-50 °C
	E-100-...	277 V	-50 ... +56 °C
	E-100-L...	277 V	-40 ... +56 °C
	E-150	277 V	-50 °C
Connection	JBM-100-...	277 V	-50 ... +56 °C
	JBM-100-L...	254 V	-40 ... +40 °C
	JBU-100-...	277 V	-50 ... +56 °C
	JBU-100-L...	254 V	-40 ... +40 °C
	S-21	277 V	-50 °C
	S-150	277 V	-50 °C
	T-100	277 V	-50 ... +56 °C

* Maximum values! Rated voltage and ambient temperature may be subject to reservations; see data sheets/instructions for operation of the components concerned

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1116 X

Technical data

Rated voltage max.	254 V or 277 V (see table)
Rated current	see installation instructions for the components concerned
Min. ambient temperature	-40 °C or -50 °C (see table)
Max. ambient temperature	+40 °C or +56 °C (see table)
Min. bending radius	35 mm
Min. installation temperature for the heating cable	-60 °C

Protection principle against limiting temperature excursion

Stabilised design (self-regulation)

Qualification for producing the trace heating system

Adequately trained expert staff

(16) Assessment and test report PTB Ex 10-19252

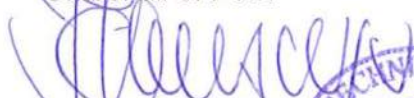
(17) Special conditions for safe use

1. Only adequately trained expert staff may be entrusted with planning, selection and installation work.
2. The instructions for installation in the relevant EC-Type-Examination Certificate must be followed.
3. The instructions for installation of the trace heating system and the used components must be complied with. They also contain additional information regarding the technical data.
4. The system has only been approved for heating cable with outer sheath (-CT).
5. The protection measures for limitation of unacceptably high leakage currents required in EN 60079-30-1 have to be considered.

(18) Essential health and safety requirements

Met by compliance with the afore-mentioned Standards.

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