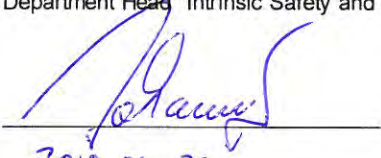




# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	IECEX PTB 08.0011X	issue No.:1	Certificate history: Issue No. 1 (2010-4-13) Issue No. 0 (2008-3-31)
Status:	<b>Current</b>		
Date of Issue:	<b>2010-04-13</b>	Page 1 of 4	
Applicant:	<b>INTERTEC-Hess GmbH</b> Raffineriestraße 8 93333 Neustadt / Donau Germany		
Electrical Apparatus: Optional accessory:	<b>Temperature Regulator, Type TC ATEX....</b>		
Type of Protection:	<b>Flameproof enclosure (Gas), Increased safety (Gas), Intrinsic safety (Gas), Encapsulation (Gas), Protection by enclosures (Dust)</b>		
Marking:	<b>Ex mb II T4 Ex e mb II T4 Ex e mb d IIC T4 Ex e mb [ib] IIC T4 Ex tD A21 IP66 T130°C</b>		
Approved for issue on behalf of the IECEx Certification Body:	Dr. Ing. Ulrich Johannsmeyer		
Position:	Department Head "Intrinsic Safety and Safety of Systems"		
Signature: (for printed version)	 <hr/>		
Date:	2010-04-23		

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany





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Manufacturer: **INTERTEC-Hess GmbH**  
Raffineriestraße 8  
93333 Neustadt / Donau  
Germany

Manufacturing location(s):

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 electrical apparatus 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:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2003</b> Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
<b>IEC 60079-11 : 2006</b> Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-18 : 2004</b> Edition: 2.0	Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation 'm' electrical apparatus
<b>IEC 60079-7 : 2006-07</b> Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical 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:

[DE/PTB/ExTR08.0009/00](#)  
[DE/PTB/ExTR08.0009/01](#)

Quality Assessment Report:  
[DE/PTB/QAR07.0005/01](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

see Attachment below

**CONDITIONS OF CERTIFICATION: YES as shown below:**

see Attachment below



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

The temperature controller ist alternatively equipped with an LED-display.  
The layout of the p.c.b. has been modified.

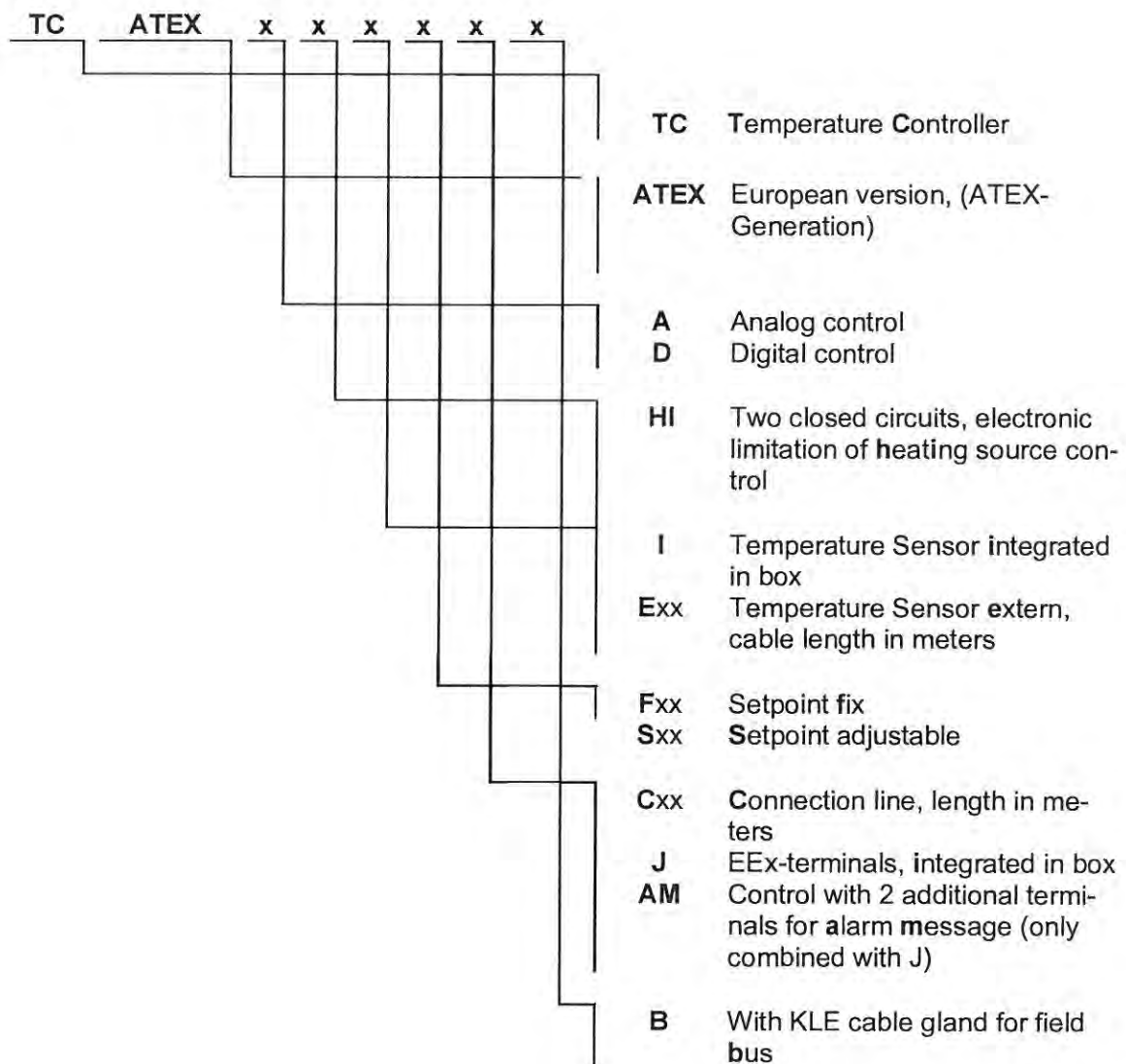
**Annexe:** [C080011\\_Attachment.pdf](#), [C080011a\\_Attachment.pdf](#)



Description of equipment

The electronic temperature regulators are used for room temperature control inside enclosures, such as protective casings or protective cubicles installed in potentially explosive areas. The temperature regulators come complete either with connection lead or with a terminal element. They may be actuated at the customer's end with the heating source they are to regulate. Depending on the type used, the temperature regulators are provided with an internal or external sensor, and they may be equipped with an additional sensor connection for heating source control.

Nomenclature





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Electrical data

Rated voltage, max.	250V AC
Operating voltage max.	275V AC
Rated current max.	10A
Ambient temperature range	-50...+80°C
Sensor circuit (non-detachable temperature sensor)	Ex ib IIC type of protection

Special conditions for safe use

1. Each temperature regulator shall be provided on the line side with a short-circuit protection in the form of a fuse designed to meet the regulator current rating (max. 3xl b in compliance with IEC 60127-2-1) or a motor overload trip with instantaneous short-circuit and thermal release (adjusted to match the current rating). For very low rated currents of the temperature regulator, the fuse with the lowest current rating according to the above referenced IEC standard will suffice. The fuse may be accommodated in the corresponding power supply unit or it shall be connected separately on the line side. The fuse voltage rating shall be the same or greater than the temperature regulator voltage rating specified. The breaking capacity of the fuse link shall be the same or greater than the maximum short-circuit current expected at the place of installation (normally 1500 A).
2. Should the temperatures at the cable entry of temperature regulators with terminal box be higher than 70 °c, or higher than 80 °c at the wire junction, this equipment shall carry an additional mark showing the higher temperatures (label at the cable entry). In that case only a heat-resistant connecting cable may be used.
3. If the cable used is not scratch resistant, it shall be protected against mechanical damage (e.g. interrupted conduit system with edge protection moulding).
4. When installed in the dust explosion protection area, only components with the required certification may be used.
5. If connection is made in the potentially explosive area, equipment with an open-ended line shall have the connecting lead connected in an enclosure that meets the requirements of an approved type of protection in compliance with EN 50014, section 1.2.
6. When using components, due care shall be taken that they may only be employed within the temperature range they have been certified for.