



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 TUN 22.0005X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2022-04-15
Applicant: **Baumer A/S**
Runetofte 19
8210 Aarhus V
Denmark
Equipment: **CombiTemp Series TCR6, TFRx and TFR5**
Optional accessory:
Type of Protection: **Intrinsic Safety**
Marking: **Ex ia IIC T6...T4**

Approved for issue on behalf of the IECEx
Certification Body:

Christian Roder

Position:

Head of IECEx Certification Body

Signature:
(for printed version)

Date:
(for printed version)

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:

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1, 30519 Hannover
Germany





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Manufacturer: **Baumer A/S**
Runetofte 19
8210 Aarhus V
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Manufacturing
locations: **Baumer A/S**
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8210 Aarhus V
Denmark

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](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

[DE/TUN/ExTR22.0003/00](#)

Quality Assessment Report:

[DE/TUN/QAR13.0001/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The CombiTemp Series comprises a series of basic ATEX Certified elements, which can be combined to various temperature sensors and transmitters as a building block system.

The components in the system are:

1. Enclosure: DIN form B, Ø80 mm and Ø55 mm stainless steel
2. Process connection – back or side mounted – see datasheet
3. Flex Top transmitters: 2202, 2203, 2204, 2212 or 2222
4. CombiView – (display)
5. Resistance Temperature Detector

TFR5:

CombiTemp™ TFR5 is a temperature sensor, based on RTD technology, which is designed for wall mounting or pipe mounting outdoor or indoor use, e.g. cold stores, freezing rooms or production facilities. CombiTemp™ TFR5 comprises a series of basic elements which can be combined in various ways to a CombiTemp TFR5 temperature sensor. The product offers great flexibility in respect to modification, service and maintenance. The sensor can be made to feature a RTD output signal or with a built in FlexTop™ temperature transmitter types 2202, 2203, 2204, 2212, 2222 with 4-20mA or HART output. Available with or without display.

TCR6:

CombiTemp™ TCR6 is a temperature sensor, based on RTD technology, which is designed and produced to meet the requirements in general industry where threaded connections are used. CombiTemp™ TCR6 comprises a series of basic elements which can be combined in various ways to a CombiTemp TCR6 temperature sensor. The product offers great flexibility in respect to modification, service and maintenance. The sensor can be made to feature a RTD output signal or with a built in FlexTop™ temperature transmitter types 2202, 2203, 2204, 2212, 2222 with 4-20mA or HART output. This temperature transmitter is complementary to the CombiTemp product program with DIN B head (housing) in combination with mainly industrial process connections.

TFRx:

CombiTemp™ TFRx is a temperature sensor, based on RTD technology, which is designed and produced to meet the requirements for hygienic use and for general industry where threaded connections are used. CombiTemp™ TFRx comprises a series of basic elements which can be combined in various ways to a CombiTemp TFRx temperature sensor. The product offers great flexibility in respect to modification, service and maintenance. The sensor can be made to feature a RTD output signal or with a built in FlexTop™ temperature transmitter types 2202, 2203, 2204, 2212, 2222 with 4-20mA or HART output. Available with or without display.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The CombiView DFON is equipped with a specific foil, to reduce potential electrostatic hazards. If the foil is damaged, the CombiTemp device has to be disassembled from EPL Ga environments.
2. The enclosures for the CombiTemp devices were tested with a low risk of impact. Hence the installation of the devices has to be done, in such a way that only a low risk of mechanical impact can occur.
3. The enclosure material of the DIN B housing is made of aluminium, hence the installation in EPL Ga areas has to ensure that mechanical sparks or friction is excluded.
4. The "FlexProgrammer" configuring unit shall only be connected to the transmitter outside of the hazardous area. The manual shall be followed for the programming.

Annex:

[Attachment to IECEX TUN 22.0005X issue No.0.pdf](#)

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Description:

The CombiTemp Series comprises a series of several elements, which can be combined to various temperature sensors and transmitters as a building block system.

The components in the system are:

- a) Enclosure: DIN form B, Ø80 mm or Ø55 mm stainless steel
- b) Process connection – back or side mounted – see datasheet
- c) Flex Top transmitters: 2202, 2203, 2204, 2212 or 2222
- d) CombiView – (display)
- e) Resistance Temperature Detector

Type key:

Valid type numbers for the types are:

TCR6 housing (DIN B enclosure):	TCR6-xxxx.x1xx.xxxx.xxxx.xxxx
TFR5 housing (Ø80 mm enclosure):	TFR5-xxxx.x1xx.xxxx
TFRx housing (Ø80 or Ø55 mm enclosure):	TFRx-xxxx.x1xx.xxxx.xxxx.xxxx

For full type key see manufacturers numbering system.

TFR5:

CombiTemp™ TFR5 is a temperature sensor, based on RTD technology, which is designed for wall mounting or pipe mounting outdoor or indoor use, e.g. cold stores, freezing rooms or production facilities.

CombiTemp™ TFR5 comprises a series of basic elements which can be combined in various ways to a CombiTemp TFR5 temperature sensor. The product offers great flexibility in respect to modification, service and maintenance.

The sensor can be made to feature a RTD output signal or with a built in FlexTop™ temperature transmitter types 2202, 2203, 2204, 2212, 2222 with 4-20mA or HART output. Available with or without display.

TCR6:

CombiTemp™ TCR6 is a temperature sensor, based on RTD technology, which is designed and produced to meet the requirements in general industry where threaded connections are used.

CombiTemp™ TCR6 comprises a series of basic elements which can be combined in various ways to a CombiTemp TCR6 temperature sensor. The product offers great flexibility in respect to modification, service and maintenance.

The sensor can be made to feature a RTD output signal or with a built in FlexTop™ temperature transmitter types 2202, 2203, 2204, 2212, 2222 with 4-20mA or HART output.

–This temperature transmitter is complementary to the CombiTemp product program with DIN B head (housing) in combination with mainly industrial process connections.

TFRx:

CombiTemp™ TFRx is a temperature sensor, based on RTD technology, which is designed and produced to meet the requirements for hygienic use and for general industry where threaded connections are used.

CombiTemp™ TFRx comprises a series of basic elements which can be combined in various ways to a CombiTemp TFRx temperature sensor. The product offers great flexibility in respect to modification, service and maintenance.

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The sensor can be made to feature a RTD output signal or with a built in FlexTop™ temperature transmitter types 2202, 2203, 2204, 2212, 2222 with 4-20mA or HART output. Available with or without display.

Technical data:

For FlexTop™ 2202, 2203 and 2204:

Supply- and Signalcircuit in type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically safe circuit with the following maxim values:

	U_i	=	28	V
	I_i	=	100	mA
	P_i	=	700	mW
effective internal Capacitance	C_i	=	10	nF
with DFON display	C_i	=	25	nF
effective internal Inductance	L_i	=	10	μH
with DFON display	L_i	=	20	nF

For FlexTop™ 2212 and 2222:

Supply- and Signalcircuit in type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically safe circuit with the following maxim values:

	U_i	=	30	V
	I_i	=	95	mA
	P_i	=	750	mW
effective internal Capacitance	C_i	=	11	nF
with DFON display	C_i	=	26	nF
effective internal Inductance	L_i	=	24	μH
with DFON display	L_i	=	34	nF

Relay output

in type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically safe circuit with the following maxim values:

	U_i	=	30	V
	I_i	=	75	mA
	P_i	=	750	mW
effective internal Capacitance	C_i	=	10	nF
effective internal Inductance	L_i	=	10	μH

Thermal data:

Equipment	temperature class	ambient temperature range	
		With DFON display	Without display
Flextop 2202, 2203, 2204	T6		$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$
	T5	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +85^{\circ}\text{C}$
	T4	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +65^{\circ}\text{C}$	
Flextop 2212,2222	T6		$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +56^{\circ}\text{C}$
	T5	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +71^{\circ}\text{C}$
	T4	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +65^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +80^{\circ}\text{C}$
Relay outputs	T5	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$	
	T4	$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +65^{\circ}\text{C}$	

Specific Conditions of Use:

1. The CombiView DFON is equipped with a specific foil, to reduce potential electrostatic hazards. If the foil is damaged, the CombiTemp device has to be disassembled from EPL Ga environments.
2. The enclosures for the CombiTemp devices were tested with a low risk of impact. Hence the installation of the devices has to be done, in such a way that only a low risk of mechanical impact can occur.
3. The enclosure material of the DIN B housing is made of aluminium, hence the installation in EPL Ga areas has to ensure that mechanical sparks or friction is excluded.
4. The “FlexProgrammer” configuring unit shall only be connected to the transmitter outside of the hazardous area. The manual shall be followed for the programming.