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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx KEM 08.0042U**

Status: **Current**

Issue No: 4

Certificate history:
Issue 3 (2021-07-16)
Issue 2 (2017-07-17)
Issue 1 (2011-05-27)
Issue 0 (2009-01-08)

Date of Issue: 2022-07-27

Applicant: **Endress+Hauser Wetzer GmbH+Co. KG**
Obere Wank 1
87484 Nesselwang
Germany

Ex Component: Connection heads

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Ex db, Ex tb and Ex ia**

Marking: Ex db IIC Gb (TA30H)
Ex tb IIIC Db (TA30A, TA30D and TA30H)
Ex ia IIIC Da (TA30A, TA30D and TA30H)

Approved for issue on behalf of the IECEx Certification Body: **R. Schuller**

Position: **Certification Manager**

Signature: (for printed version)

Date: 2022-07-27
(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.

DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands
T +31 88 96 83000· F +31 88 96 83100
www.dekra-certification.com

Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands

IECEx Certificate of Conformity

Manufacturer: **Endress+Hauser Wetzer GmbH+Co. KG**
Obere Wank 1
87484 Nesselwang
Germany

Manufacturing locations:

Endress+Hauser Wetzer GmbH+Co. KG
Obere Wank 1
87484 Nesselwang
Germany

Endress+Hauser Wetzer (India) Pvt. Ltd.
M-171/173, MIDC, Waluj, Aurangabad – 431 136
India

Endress + Hauser Sicestherm S.r.l.
Via Martin Luther King, 7/9
I-20060 Pessano con Bornago (MI)
Italy

See following pages for more 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 component 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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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 component listed has successfully met the examination and test requirements as recorded in:

Test Report:

NL/KEM/ExTR08.0041/04

Quality Assessment Report:

DE/TUN/QAR06.0009/09

IECEx Certificate of Conformity

Ex Component(s) covered by this certificate is described below:

Connection Heads, Types TA30A, TA30D and TA30H, are empty enclosures intended for mounting of transmitters or terminals to be connected with a temperature sensor.

A Connection Head consist of a base and a cover, optionally coated with a non–conductive varnish.
Types TA30A and TA30D are made of aluminium and provided with a hinged cover.
Type TA30H is made of aluminium or stainless steel and provided with a threaded cover, blind or windowed.

The Connection Heads are provided with one or two cable entry openings.
The Connection heads can be provided with or without an entry opening for a (temperature) sensor, indicated as “Connection Protection Tube assembly” in the type designation.
This entry opening is optionally provided with an adapter. The cylindrical joint of a temperature sensor with the Connection Head with integral flame path or with the adapter is treated as part of the flameproof enclosure of Connection Head Type TA30H.

The Connection Heads provide a degree of protection of at least IP66/IP68 (1.83 m / 24 h) per IEC 60079-0 and IEC 60529.

For details about thermal data and the type designation see Annex 1 to Report No. NL/KEM/ExTR08.0041/04.

SCHEDULE OF LIMITATIONS:

Schedule of Limitations:

Types TA30A, TA30D and TA30H:
- The ambient temperature range shall be selected as shown in Annex 1 to Report No. NL/KEM/ExTR08.0041/04.
- Connection Heads provided with a non-conductive varnish shall be marked and provided with instructions to minimize the risk from electrostatic discharge.
- The IP grade at the opening for the sensor in the base of the connection head or in the adapter shall be ensured by suitable means.

Type TA30H only:
- The flameproof joints are not intended to be repaired.
- The cover has 9 engaged threads but has been tested with 5 threads.
- The thread type and size of cable entry openings shall be identified by marking or by the installation instructions with a reference to the instructions on the marking.
- Oil-filled circuit-breakers and contactors shall not be used.
- The connection heads are tested with dummy contents that represent typical round transmitters and terminal blocks with a main diameter of max. 45 mm. The use of enclosed apparatus of another shape and a larger main diameter is not covered by this certificate.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. Introduction of new type of protection and marking Ex ia IIIC Da
2. Minor constructional change

IECEx Certificate of Conformity

Additional manufacturing locations:

Endress+Hauser Wetzer (Suzhou) Co. Ltd.
Jiang-Tian-Li-lu No.31, 215021 Suzhou-SIP
(P.R. China)
China

Endress+Hauser Wetzer USA INC
2413 Endress Place
Greenwood, IN 46143
United States of America

Annex:

226512100-Annex1 to ExTR08.0041.04.pdf

Description

Connection Heads, Types TA30A, TA30D and TA30H, are empty enclosures intended for mounting of transmitters or terminals to be connected with a temperature sensor.

Thermal data

Service temperature range:	-50 °C to +100 °C	for the glass window cover
	-50 °C to +135 °C	for the enclosure and o-rings

For any Connection Head the service temperature of the applied parts shall not be exceeded.

For Connection Head Type TA30H, the maximum ambient temperature shall not exceed 130 °C when provided with a blind cover and 90 °C when provided with a window cover.

For Connection Heads with a transmitter of max 2.2 W or with terminals
- the maximum ambient temperature +10 K shall not exceed the maximum service temperature of the applied parts.
- the maximum surface temperature does not exceed the maximum ambient temperature +10 K.

For Connection Heads with a transmitter of max 800 mW or with terminals for Ex ia IIIC Da
- the maximum ambient temperature +12 K shall not exceed the maximum service temperature of the applied parts (electronics and non-metallic parts).
- the maximum surface temperature (under 200 mm of dust) does not exceed the maximum ambient temperature +14 K.

Type designation

Series No Suffix Code
TA30A- abcdefg

Designation	Explanation	Value	Explanation
a	Connection Protection	1	Thread M24 x 1.5
	Tube Assembly	7	without thread, preparation for mounting bracket
b	Electrical Connection	A	1x thread M20x1.5
		B	1x thread NPT1/2
		C	1x thread G1/2
		D	2x thread M20x1.5
		E	2x thread NPT1/2
c	Display window	1	Blind cover
		2	Glass window cover
d	Cable Gland; Temp.range; Protect. Type	n.s. *	Not in the scope
e	Plug; Temp. Range; Protect. Type	n.s. *	Not in the scope
f	Accessory Enclosed	n.s. *	Not relevant for Explosion Safety
g	Marking	n.s. *	Not relevant for Explosion Safety

* n.s. mean value is neither related to Explosion Safety nor in the scope.

Series No Suffix Code
TA30D- abcedf

Designation	Explanation	Value	Explanation
a	Connection Protection	1	Thread M24 x 1.5
	Tube Assembly	7	without thread, preparation for mounting bracket
b	Electrical Connection	A	1x thread M20x1.5
		B	1x thread NPT1/2
		C	1x thread G1/2
		D	2x thread M20x1.5
		E	2x thread NPT1/2
c	Cable Gland; Temp.range; Protect. Type	n.s. *	Not in the scope
d	Plug; Temp. Range; Protect. Type	n.s. *	Not in the scope
e	Accessory Enclosed	n.s. *	Not relevant for Explosion Safety
f	Marking	n.s. *	Not relevant for Explosion Safety

* n.s. mean value is neither related to Explosion Safety nor in the scope.

Series No Suffix Code
TA30H- abcdefghi

Desig-nation	Explanation	Value	Explanation
a	Approval type	B1	ATEX II2G Ex d IIC, II2D Ex tb IIIC
		I1	IECEx Ex db IIC Gb, Ex tb IIIC Db
		8F	ATEX IECEx II2D Ex tb IIIC Db
		85	ATEX IECEx II1D Ex ia IIIC Da
b	Connection Protection Tube Assembly	1	Thread 1/2NPT, big taphole
		2	Thread 1/2NPT, integral flame path
		3	M20 x 1.5, female thread, big taphole
		4	M20 x 1.5, female thread, integral flame path
		7	without thread, preparation for mounting bracket
c	Electrical Connection	A	Thread M20 x 1.5
		B	Thread 1/2 NPT
		C	Thread G1/2 (only for Ex tb or Ex ia)
		D	Thread 3/4 NPT
		E	Thread 2 x M20 x1.5
		F	Thread 2 x 1/2 NPT
		G	Thread 2 x 3/4 NPT
d	Display window; Lead Sealing; material	A	316L; w/o; w/o
		B	316L; glass; w/o
		C	316L; w/o; lead sealable
		D	316L; glass; lead sealable
		1	Alu; w/o; w/o
		2	Alu; glass; w/o
		3	Alu; w/o; lead sealable
		Y	Special varnishing (Non-conductive) in combination with digit A to 3
e	Cable Gland; Temp.range; Protect. Type	n.s. *	Not in the scope
f	Plug; Temp. Range; Protect. Type	n.s. *	Not in the scope
g	Accessory Mounted:	NA	Attachment hinge, Stainless steel (304)
h	Accessory Enclosed	n.s. *	Not relevant for Explosion Safety
i	Marking	n.s. *	Not relevant for Explosion Safety

* n.s. mean value is neither related to Explosion Safety nor in the scope.