



# 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 TPS 18.0014X

Issue No: 0

Certificate history:

Issue No. 0 (2019-07-22)

Status: **Current**

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Date of Issue: **2019-07-22**

Applicant: **E+E Elektronik GmbH**  
Langwiesen 7  
4209 Engerwitzdorf  
**Austria**

Equipment: **Humidity / Temperature Sensor EE100Ex**

Optional accessory: *Connection cable: HA011068*

Type of Protection: **Intrinsic safety "ia"**

Marking:

EE100Ex: Ex ia IIB T4 Gb -40°C < Ta < +60°C

HA011068: -40°C < Ta < +40°C

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

Arno Butzke

*Position:*

Technical Certifier

*Signature:  
(for printed version)*

*Date:*

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:

**TÜV SÜD Product Service GmbH**  
Ridlerstr. 65  
D-80339 Munich  
Germany



Product Service



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Manufacturer: **E+E Elektronik GmbH**  
Langwiesen 7  
A-4209 Engerwitzdorf  
**Austria**

Additional 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 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:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

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

*This Certificate **does not** indicate compliance with 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/TPS/ExTR18.0007/00](#)

Quality Assessment Report:

[DE/TPS/QAR12.0001/07](#)



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## Schedule

### EQUIPMENT:

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

The intrinsically safe sensor EE100Ex is dedicated for the measurement of relative humidity, temperature and dew point temperature / frost point temperature in hazardous gas areas up to Zone 1. The device may only be supplied by an associated apparatus with intrinsically safe connectors.

The intrinsically safe power supply and data output is carried out on an isolated 2-wire 4..20 mA interface. The device contains two galvanic isolated 2-wire channels, whereas channel 2 can only be operated together with channel 1.

Outside the hazardous area the configuration and adjustment of the EE100Ex can be performed with the associated HA011068 connection cable, a configuration device and a PC.

The EE100EX is available with three different types of probes: probe fixed directly onto the enclosure, remote probe with cable fixed onto the enclosure and remote probe with M12 connector. The protection of the sensing element is realised with a choice of seven different filter caps.

The following EE100Ex models are available:

Model T1	Model T3	Model T 23
Wall mount with fixed probe	Remote probe with fixed cable 3 m long	Probe with M12 connector (maximum cable length 3 m)

The following filter caps are available:

Type	Order code
PTFE filter (PTFE / PC)	F2
Membrane filter (stainless steel grid / PC)	F3
Stainless steel sintered filter	F4
PTFE sintered filter	F5
Stainless steel grid filter	F9
PTFE-stainless steel filter	F11
H2O2 filter (PTFE)	F12

Intrinsically safe parameters:

Ui=28V; li=100mA; Pi=700mW (per channel); Ci = 2.2nF; Li ≈ 0mH



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**SPECIFIC CONDITIONS OF USE: YES as shown below:**

- EE100Ex meets the requirements for „ia“ according to IEC 60079-11. Usage is only permitted in EPL Gb, Zone 1 due to the aluminium enclosure.
- The fixed or separated probe must not be installed in Zone 0, since the EPL of the entire EE100Ex device is limited to “Gb”.
- The sensor probe has to be covered with one of the provided filter caps.
- The configuration and adjustment of the EE100Ex is only permitted with the associated HA011068 connection cable outside the hazardous area. When the HA011068 is connected to the EE100Ex, CH1 and CH2 must not be connected.