



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 CML 16.0125X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2017-03-09\)](#)
[Issue 0 \(2017-02-23\)](#)
Date of Issue: 2021-11-15
Applicant: **Temposonics GmbH & Co. KG**
Auf Dem Schüffel 9
Lüdenscheid D-58513
Germany
Equipment: **Linear Position Sensor Temposonics® E-Series ET**
Optional accessory:
Type of Protection: **Sealed Device "nC", Dust Ignition "tc"**
Marking: **Ex nC IIC T4 Gc**
Ex tc IIIC T130°C Dc
Refer to Annex for further marking detail.

Approved for issue on behalf of the IECEx
Certification Body:

R C Marshall

Position:

Certification Officer

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:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Temposonics GmbH & Co. KG**
Auf Dem Schüffel 9
Lüdenscheid D-58513
Germany

Manufacturing
locations: **Temposonics LLC**
3001 Sheldon Drive
Cary NC 27513
United States of America

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 60079-15:2010](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

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

Test Reports:

[GB/CML/ExTR16.0158/00](#)

[GB/CML/ExTR17.0034/00](#)

[GB/CML/ExTR21.0159/00](#)

Quality Assessment Reports:

[GB/CML/QAR16.0004/01](#)

[GB/CML/QAR16.0004/06](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Linear Position Sensors Temposonics® E Series ET sensors are linear position sensors utilising the magnetostrictive principle. The position of the external permanent magnet will be detected by the time of flight of an ultrasonic pulse and converted into linear output signal. This can be analog, SSI or Start/Stop.

The Linear Position Sensors Temposonics® E Series ET sensors are housed in identical sealed enclosures that can have a rod or a profile attachment which is opposite to the enclosure cable entry.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for Specific Conditions of Use.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1

This issue introduced the following changes:

1. Inclusion of an additional cable gland type.

Issue 2

This issue introduced the following changes:

1. Change of applicant's and manufacturer's name.
2. Update of IEC 60079-0:2011 Ed. 6 to IEC 60079-0:2017 Ed. 7.

Annex:

[IECEX CML 16.0125X Iss. 2 Certificate Annex.pdf](#)

Annexe to: IECEx CML 16.0125X Issue 2
Applicant: Temposonics GmbH Co. & KG
Apparatus: Linear Position Sensors Temposonics® E Series ET



Product Description

The Linear Position Sensors Temposonics® E Series ET sensors are linear position sensors utilising the magnetostrictive principle. The position of the external permanent magnet will be detected by the time of flight of an ultrasonic pulse and converted into linear output signal. This can be analog, SSI or Start/Stop.

The Linear Position Sensors Temposonics® E Series ET sensors are housed in identical sealed enclosures that can have a rod or a profile attachment which is opposite to the enclosure cable entry.

Marking

Ex nC IIC T4 Gc

Ex tc IIIC T130°C Dc

IP66 or IP68*

Ambient range**:

Analog: $-40^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$

SSI: $-40^{\circ}\text{C} \leq T_a \leq +90^{\circ}\text{C}$

Start/Stop: $-40^{\circ}\text{C} \leq T_a \leq +105^{\circ}\text{C}$

* Refer to conditions of manufacture regarding the marking of the IP rating.

** The ambient range applied depends on the model.

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification:

- i. There the product incorporates certified parts or safety critical components; the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each unit shall be subjected to a routine dielectric strength test in accordance with IEC 60079-15:2010, clause 23.2.1. A test voltage of at least 500 V r.m.s. shall be applied for at least 60 seconds. Alternatively, a test voltage of at least 700 V d.c. shall be applied for at least 60 seconds.
No breakdown or flashover shall occur.
- iii. Sensors provided to the end-user with braided Teflon cable shall be marked IP66.
Sensors provided to the end-user with Silicone cables are permitted to be marked IP66/68.

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Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. The end user shall adhere to the provided installation instructions.
- ii. The end user shall only install the sensor where the risk of impact is low.