# 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 BVS 13.0063X** | Page 1 of 5 | Certificate history: |
| Status: | **Current** | Issue No: 2 | Issue 1 (2020-01-29)<br>Issue 0 (2014-06-30) |
| Date of Issue: | 2023-01-30 | | |
| Applicant: | **Temposonics GmbH & Co. KG**<br>Auf Dem Schüffel 9<br>Lüdenscheid D-58513<br>**Germany** | | |
| Equipment: | **Position sensor type GTE** | | |
| Optional accessory: | | | |
| Type of Protection: | **Increased Safety "e"** | | |
| Marking: | Ex ec IIC T4 Gc | | |

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

Position: **Senior Lead Auditor, Certification Manager and officially recognised expert**

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:

**DEKRA Testing and Certification GmbH**
**Certification Body**
**Dinnendahlstrasse 9**
**44809 Bochum**
**Germany**

DEKRA
On the safe side.

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

Manufacturing locations:

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

**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 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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/BVS/ExTR13.0123/01

Quality Assessment Reports:

GB/CML/QAR16.0004/07 GB/FME/QAR14.0005/08

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**EQUIPMENT:**
Equipment and systems covered by this Certificate are as follows:

**Model/type reference:**

Position sensor type GTEabcde-EX

a – Stroke length (4 digits)
in mm if b = M
in inches if b = U

b – Unit (1 digit)
M = metric
U = US commercial

c – Connection type (3 digits)
Bxx = integral cable, pigtail termination
xx = cable length in m or feet (depending on b = M or U)

d - Power supply (1 digit)
1 – DC 24 V +20 % / -15 % (max. $T_{amb}$ = 75 °C)
3 – DC 13.0 to 17.0 V (max. $T_{amb}$ = 85 °C)
4 – DC 24 V +20 % / -15 % (max. $T_{amb}$ = 85 °C)
5 – DC 13.0 to 28.8 V (max. $T_{amb}$ = 85 °C)

e – Outputs (2 digits)
V0 = 0… 10 V
V1 = 10… 0 V
V2 = -10…+10 V
V3 = +10…-10 V
A0 = 4… 20 mA
A1 = 20… 4 mA
A2 = 0… 20 mA
A3 = 20… 0 mA

**Description:**

The sensor type GTE is a sensor for linear position management in industrial applications based on the magnetostrictive principle. It consists of a ferromagnetic wire and a movable magnet marking the position.

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

1 The clamping test of the cable entry was carried out with a reduced value, so it has to be ensured that pulling and twisting of the cable is not transmitted to the terminations.

2 The positioning sensor shall be embedded into a metallic cylinder so that it is protected against mechanical influences.

3 The positioning sensor shall only be installed in an area of at least pollution degree 2 as defined in IEC 60664-1.

4 Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals of the sensor.

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**Equipment (continued):**

Rating

| | |
|---|---|
| Type GTEabc1e-EX | |
| Supply | DC 24 V +20 % / -15 % |
| Max. ambient temperature range | -20 °C....+75 °C |
| Type GTEabc3e-EX | |
| Supply | DC 13.0...17.0 V |
| Max. ambient temperature range | -20 °C....+85 °C |
| Type GTEabc4e-EX | |
| Supply | DC 24 V +20 % / -15 % |
| Max. ambient temperature range | -20 °C....+85 °C |
| Type GTEabc5e-EX | |
| Supply | DC 13.0...28.8 V |
| Max. ambient temperature range | -20 °C....+85 °C |

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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

- Change of company name
- Updating to the current standards