



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 19.0016** Page 1 of 5 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-01-28

Applicant: **Gönnheimer Elektronik GmbH**
Dr.-Julius-Leber-Straße 2
67433 Neustadt an der Weinstraße
Germany

Equipment: **Keyboard type KB153.x.x.x**

Optional accessory:

Type of Protection: **Intrinsic safety**

Marking: **Ex ib IIC T4 Gb**

Approved for issue on behalf of the IECEx
Certification Body:

Christian Roder

Position:

Head of IECEx Certification Body

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 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: **Gönzheimer Elektronik GmbH**
Dr.-Julius-Leber-Straße 2
67433 Neustadt an der Weinstraße
Germany

Additional
manufacturing
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 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/EXTR19.0019/00](#)

Quality Assessment Report:

[DE/TUN/QAR10.0006/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

There are three basic versions of the keyboard KB153.x.x.x available:

- Keyboard without touchpad
- Keyboard with integrated touchpad (separately certified)
- Compact Keyboard

The permissible ambient temperature range is -20 °C ... +50 °C

For further details see attachment.

SPECIFIC CONDITIONS OF USE: NO



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Equipment (continued):

See attachment.



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Additional information:
See attachment.

Annex:

[Attachment KB153 Issue 0.pdf](#)

Product:

There are three basic versions of the keyboard KB153.x.x.x available:

- Keyboard without touchpad
- Keyboard with integrated touchpad (separately certified)
- Compact Keyboard

The permissible ambient temperature range is -20 °C ... +50 °C

Type Code

Keyboard KB153

Housing:	
Keyboard for panel mounting .....	.0
Keyboard with housing \geq IP54 .....	.1
Keyboard + Touchpad for panel mounting .....	.2
Keyboard + Touchpad with housing \geq IP54 .....	.3
Compact Keyboard for panel mounting .....	.4
Compact Keyboard with housing \geq IP54 .....	.5
Layout:	
Type 0 .....	.0
Type 1 .....	.1
Type n .....	.n
Interface:	
USB .....	.0
PS/2 .....	.1

Electrical data

Supply and signal circuits
(cable connector
Pins 1, 2, 3, 4 [supply and data];
shield of connector cable is
connected to metal parts)

in type of protection intrinsic safety Ex ib IIC
only for connection to certified intrinsically safe circuits

Max. values:
 $U_i = 5.8$ V
 $I_i = 204$ mA
 $P_i = 392$ mW

The effective internal inductance is negligibly small.
Effective internal capacitance: 25 μ F

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Attachment to IECEx TUN 19.0016 issue No.: 0

Hints for erection and operation:

1. For safety reasons, the intrinsically safe circuit is earthed. It has to be ensured, that potential equalization exists in the complete course of the erection of the intrinsically safe circuit.
2. The shield of the connector cable has to be connected with the potential equalization in the explosion hazardous area. Alternatively, the connection to the potential equalization can be made by installing the KB153 to a metal housing that is connected to the potential equalization. In that case the metal plate of the KB153 has to have electrical contact with this housing. It is also possible to wire the metal plate of the KB153 directly to the potential equalization.

The manual of the manufacturer has to be observed for further details.