



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 16.0035X** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 1 Issue 0 (2016-05-31)
Date of Issue: 2020-11-30
Applicant: **Hans Turck GmbH**
Witzlebenstraße 7
45472 Mülheim an der Ruhr
Germany
Equipment: **Ultrasonic sensor type RU***U-****(**)-**(***).8X2(*)-H1151/S****/3GD**
Optional accessory:
Type of Protection: **Type of Protection "n", Protection by Enclosure "t", Increased Safety "e"**
Marking: Ex ec nC IIC T6 Gc with teach button
Ex tc IIIC T70°C Dc
Ex ec IIC T6 Gc without teach button
Ex tc IIIC T70°C Dc

Approved for issue on behalf of the IECEx
Certification Body:


Jörg Koch

Position:

Head of Certification Body

Signature:
(for printed version)

Date:


20.11.2020

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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Issue No: 1

Manufacturer: **Hans Turck GmbH**
Witzlebenstraße 7
45472 Mülheim an der Ruhr
Germany

Additional manufacturing locations: **Werner TURCK GmbH & Co. KG**
Goethestraße 7
58553 Halver
Germany

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 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

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

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/ExTR16.0040/01

Quality Assessment Reports:

DE/PTB/QAR06.0012/04

DE/PTB/QAR06.0013/05



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and Type

See Annex

Description

The ultrasonic sensor is used for contactless capture of objects. The ultrasonic diffuse mode sensor detects all objects that echo back ultrasonic waves. The sensor consists of a stainless steel enclosure with an external thread in size M18 or M30. For adjusting the measuring range the sensor is optionally equipped with teach buttons.

The ultrasonic sensor is designed in type of protection 'ec' for use in Category 3G and in type of protection by enclosure 'tc' for Category 3D. The teach button is designed in type of protection "nC".

SPECIFIC CONDITIONS OF USE: YES as shown below:

The connection of the sensor with integrated M12 flange socket must be equipped with an M12 connector separately assessed for this purpose. The connector has to comply with the requirements according EN/IEC 61076-2-101.

The external earthing has to be established by the end user in the end use application.



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Equipment (continued):

Parameters

Electrical data

Nominal voltage 15...30 VDC

Nominal current ≤ 150 mA

Ultrasonic frequency 80 up to 300 kHz

Thermal data

Ambient temperature range $-25\text{ °C} \leq T_A \leq 45\text{ °C}$



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Change of the type code
- Change of the manufacturer
- Addition of the additional production site
- Updating of the standards

Annex:

[BVS_16_0035X_Turck_Annex_issue1.pdf](#)



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Annex

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