



# 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 TUN 11.0001X issue No.: 1

Status: **Current**

Certificate history:  
Issue No. 1 (2014-7-10)  
Issue No. 0 (2011-2-7)

Date of Issue: **2014-07-10** Page 1 of 4

Applicant: **SICK Engineering GmbH**  
Bergener Ring 27  
01458 Ottendorf-Okrilla  
Germany

Electrical Apparatus: **Flow meter type FLOWSIC600 and FLOWSIC300**  
Optional accessory:

Type of Protection: **flameproof enclosures "d", increased safety "e", intrinsic safety "i", equipment with equipment protection level (EPL) Ga**

Marking: Gb/Ga Ex d e ia [ia IIC/IIB/IIA Ga] IIC/IIB/IIA T4  
Gb/Ga Ex d e ia [ia IIC Ga] IIC T6  
Gb/Ga Ex d e ib [ia IIC/IIB/IIA Ga] IIC/IIB/IIA T4  
Ex d e ib [ib] IIC/IIB/IIA T4 Gb  
For the ultrasonic probe the following marking is possible if the probe is sold without the evaluation unit: Ex ia IIC T6 Ga

Approved for issue on behalf of the IECEx  
Certification Body:

K.-H. Schwedt

Position:

Head of the IECEx CB

Signature:  
(for printed version)

Date:

*[Signature]*  
2014-07-10

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.

Certificate issued by:

**TÜV NORD CERT GmbH**  
Hanover Office  
Am TÜV 1  
30519 Hannover  
Germany





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Manufacturer: **SICK Engineering GmbH**  
Bergener Ring 27  
01458 Ottendorf-Okrilla  
Germany

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 electrical 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:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2006</b> Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-26 : 2006</b> Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
<b>IEC 60079-7 : 2006-07</b> Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/TUN/ExTR11.0002/00

DE/TUN/ExTR11.0002/01

### Quality Assessment Report:

DE/TUN/QAR09.0005/03





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## Schedule

### EQUIPMENT:

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

The flow control system type FLOWSIC 600 resp. FLOWSIC 300 is used for the contactless measurement of the flow of gases. The equipment measures over the running time of ultrasonic pulses the flow speed of the gas and calculates the resulting operating volume flow rate.

### CONDITIONS OF CERTIFICATION: YES as shown below:

- For the whole area of erection of the apparatus potential equalisation have to be ensured. The protective earth conductor terminals of the apparatus shall be connected to the potential equalisation.
- The combination of intrinsically safe circuits and non-intrinsically safe circuits for the field connections are not allowed.
- The joints of the apparatus increase the safety level which is defined in table 2 of the IEC 60079-1:2007.
- Note for zone 0: The devices complying with this standard are intended for use in hazardous areas in which explosive atmospheres exist under normal atmospheric conditions of temperature  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ , pressure 80 kPa (0,8 bar) to 110 kPa (1,1 bar), and air with normal oxygen content, typically 21 % v/v. The application of electrical equipment in atmospheric conditions outside this range requires special consideration and may require additional assessment and testing.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

The new type FLOWSIC300 will be regarded.