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 history:
Issue 2 (2026-01-14)
Issue 1 (2025-07-10)
Issue 0 (2025-02-11)

Certificate No.: **IECEx CSAE 24.0013X**

Status: **Current**

Issue No: 3

Date of Issue: 2026-03-11

Applicant: **Endress+Hauser SICK GmbH+Co. KG**
Bergener Ring 27
01458 Ottendorf-Okrilla
Germany

Equipment: **Ultrasonic flowmeter, model FLOWSIC900 and FLOWSIC610**

Optional accessory:

Type of Protection: **Flameproof 'db' Intrinsic Safety 'ia'**

Marking: Ex db ia [ia Ga] IIA T4 Gb, for FLOWSIC900
Ex db ia [ia Ga] IIC T4 Gb, for FLOWSIC610
-40 °C ≤ Ta ≤ +60 °C

Approved for issue on behalf of the IECEx Certification Body: **Michelle Halliwell**

Position: **Senior Director of Operations**

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:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom

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Manufacturer: **Endress+Hauser SICK GmbH+Co. KG**
Bergener Ring 27
01458 Ottendorf-Okrilla
Germany

Manufacturing locations: **Endress+Hauser SICK GmbH+Co. KG**
Bergener Ring 27
01458 Ottendorf-Okrilla
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 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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 Reports:

GB/CSAE/ExTR25.0006/00 GB/CSAE/ExTR25.0055/00 GB/CSAE/ExTR25.0100/00
GB/CSAE/ExTR26.0014/00

Quality Assessment Report:

DE/TUN/QAR09.0005/13

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

The ultrasonic flow meter FLOWSIC900 and FLOWSIC610 measures the flow of gas or liquid in pipelines utilizing an ultrasonic technology. Model FLOWSIC900 is intended for measurement of LNG flow and model FLOWSIC610 is intended for measurement of gaseous hydrogen flow.
Both models consist of SPU (Signal Processing Unit), Model FLOWSIC900 consists of SPU Holder, Ultrasonic transducers with connection cables *(Multi Coax cables for ultrasonic transducers and the sensor cable for Pt 1000 sensor)* and meter body. Model FLOWSIC610 consists of common meter body and SPU connected, with ultrasonic sensors connected inside of the meter body.

The Signal Processing Unit (SPU) is further comprised of the following pre-certified Ex components.

FPH (FLOWSIC Platform Housing):

FPES electronics is installed inside the flameproof chamber.
IECEx certificate: IECEx CSA 24.0016U, Marking: Ex db ia IIC Gb

PPT (PCB Pass Through):

IECEx Certificate: IECEx CSAE 23.0042U, Marking: Ex db ia IIC Gb

FPES (FLOWSIC Platform Electronics Stack):

IECEx Certificate: IECEx CSAE 23.0046U, Marking: [Ex ia Ga] IIA for model FLOWSIC900; [Ex ia Ga] IIC for model FLOWSIC610

See Annexe for more information

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The flameproof joints of the flameproof enclosure are not intended to be repaired.
2. The painted, coated, or non-metallic parts of the flow meter may pose a potential hazard due to electrostatic charge. To ensure safe operation, the flow meter must not be installed in environments where external conditions could lead to the accumulation of electrostatic charge on its non-metallic surfaces. To prevent static discharge, any parts of the flow meter, which are painted, coated or non-metallic, should only be cleaned using a damp cloth.
3. The threaded entries to the flameproof enclosure must be closed with suitably certified cable glands or blind plugs.
4. The non-intrinsically safe field wiring of the flow meter must be supplied with a 24 Vdc SELV/PELV or similar power supply compliant with Um = 60 V voltage.
5. The maximum prospective short circuit current at the connections to non-intrinsically safe circuits shall not exceed 50 A.
6. An external earth conductor is required between the external Grounding terminal of the enclosure and earth. This earth conductor must have a copper cross-sectional area ≥ 4 mm², be permanently installed and adequately mechanically protected.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 1 – this Issue introduced the following changes:

1. To include model FLOWSIC610 based on the TIS project 80228074.
2. To change the applicant/manufacturer's name from SICK Engineering GmbH to Endress+Hauser SICK GmbH+Co. KG
3. To include editorial corrections in conditions of safe use of Model FLOWSIC900.

Issue 2 – this Issue introduced the following changes:

1. remove Special Condition of use related to piezoelectric hazard
2. Revision of Ultrasonic Sensor Documentation: Eliminate the existing construction drawings of the ultrasonic sensor and replace them with a defined list of critical components essential to its construction.

Issue 3 – this Issue introduced the following changes:

1. To update the certificate issue of the pre-certified components FPH (IECEx CSA 24.0016U Issue 2) and Pressure transmitter (IECEx EPS 14.0027X Issue 5).

Annex:

IECEx CSAE 24.0013X Annexe Issue 3_1.pdf

EQUIPMENT (continued)

Model FLOWSIC900, Entity parameters, in type of protection Ex ia IIA:

Transducer, MCX Connectors J100-J115, values per connector:					
Uo = 18.1 V	Io = 1293 mA	Po = 1159 mW	Ci = 0 nF	Co = 7.45 µF	Lo = 0.17 mH
Service, connector M12 *(to the side of the Ex-i chamber):*					
Uo = 6.42 V	Io = 117 mA	Po = 410 mW	Ci = 110 nF	Co = 999.7 µF	Lo = 10.39 mH
Display, connector M12 *(front of the Ex-i chamber):*					
Uo = 6.42 V	Io = 117 mA	Po = 410 mW	Ci = 13.2 nF	Co = 999.7 µF	Lo = 10.39 mH
Interface for additional pressure sensor, connector J205, J206, J208 inside of the Ex i chamber					
Uo = 7.42 V	Io = 190 mA	Po = 322 mW	Ci = 3.742 µF	Co = 174 µF	Lo = 3.94 mH

Model FLOWSIC610, Entity parameters, in type of protection Ex ia IIC:

Service, connector M12, to the side of the Ex-i chamber:					
Uo = 6.42 V	Io = 117 mA	Po = 410 mW	Ci = 0.3 µF	Co = 24.58 µF	Lo = 2.59 mH
Display, connector M12, front of the Ex-i chamber:					
Uo = 6.42 V	Io = 117 mA	Po = 410 mW	Ci = 0.3 µF	Co = 24.68 µF	Lo = 2.59 mH
Interface for additional pressure sensor, connector J205, J206, J208 inside of the Ex i chamber					
Uo = 6.85 V	Io = 153 mA	Po = 236 mW	Ci = 0 µF	Co = 16.8 µF	Lo = 1.51 mH

CSA Group Testing UK Ltd.
Unit 6 Hawarden Industrial Park,
Hawarden Deeside CH5 3US, UK.