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 CSAE 25.0059X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2026-01-15

Applicant: **CS INSTRUMENTS GmbH & Co. KG**
Zindelsteiner Straße 15
Villingen-Schwenningen 78052
Germany

Equipment: **Flow- / Consumption Sensor, Model: VA 550 Ex and VA 570 Ex**

Optional accessory:

Type of Protection: **Flameproof "db" and Dust Protection by Enclosure "tb"**

Marking: Ex db IIC T4 Gb
Ex tb IIIC T90°C Db
-20 ˚C ≤ Tamb ≤ 70 ˚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: **CS INSTRUMENTS GmbH & Co. KG**
Zindelsteiner Straße 15
Villingen-Schwenningen 78052
Germany

Manufacturing locations: **CS INSTRUMENTS GmbH & Co. KG**
Zindelsteiner Straße 15
Villingen-Schwenningen 78052
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 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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:

GB/CSAE/ExTR26.0001/00

Quality Assessment Report:

DE/TPS/QAR25.0017/00

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

The Flow- / Consumption Sensor, Model: VA 550 Ex and VA 570 Ex, is used to measure the thermal mass flow of compressed air, pure gases and gas mixtures by means of a calorimetric principle. At the same time the gas temperature is determined.

The device consists of an aluminum die-cast housing sealed on both sides with housing covers and a sensor with measuring tips. The evaluation and display electronics consists of three printed circuit boards, which are installed in the die-cast aluminum housing. The electrical connection to the outside via one or two with suitably certified cable and cable entries, which are bolted into the aluminum die-cast housing. Unused entries in the aluminum die-cast housing must be closed with a suitably certified blanking element.

The measured values or settings are displayed via a 2" TFT display. The operation or adjustment of the Flow- / Consumption Sensor, Model: VA 550 Ex and VA 570 Ex is done visually via the sight glass in the housing cover. The measured value is output via Modbus RTU or via two 4-20 mA analog outputs.
The Flow / consumption probe VA 550 Ex is screwed into the pipeline via a connection nut and is equipped with the sensor with measuring tips in various lengths from 120 mm to 1500 mm.

The Flow / consumption probe VA 570 Ex is delivered pre-assembled together with a measuring section.

The permissible ambient temperature range is: -20 °C to + 70 °C
The permissible media temperature range is: -20 °C to + 120 °C

Technical data

Voltage (nominal value) Un = 36 VDC
Power input (nominal value) Pn = 5 W

The equipment complies with the requirement of IP65 as per IEC 60079-0:2017 and IEC 60079-31:2013.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The operating instructions and the Ex documentation must be observed, in particular the stipulations for the necessary inclusion in equipotential bonding and grounding as well as overvoltage protection.

2. Opening the housing in the potentially explosive area is possible after a waiting period of at least 5 minutes after switch-off. The electrical connection must only be carried out when the power is off. Each opening that has been opened must be resealed and locked with the tightening torques specified in the operating instructions.

3. The repair of the flameproof case of flow-/consumption sensor VA 550 Ex and VA 570 Ex, including the flameproof joints are not allowed.

4. The type of protection depends on the proper selection and installation of the cable glands and blanking element. All openings must be provided with appropriate cable glands or blanking element for unnecessary openings. Only cable and cable entries and blanking elements suitably certified according to the standards IEC 60079-0, IEC 60079-1 and IEC 60079-31 may be used. These must be certified at least for a temperature range of -20 °C to + 95 °C. The cable glands and blanking elements used must have a thread size M20x1.5. Thread engagement must be at least 8 mm.

5. The device may only be used with harmonized cables suitable for the cable glands. These must be suitable for at least a service temperature range of -20 °C to + 95 °C.

6. The four fastening screws used to secure the housing to the upper flange (tightened to 4 Nm torque) can only be replaced with screws of size M5×10, conforming to DIN 6912 and property class A2-70.