



EU-TYPE EXAMINATION CERTIFICATE

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **ZELM 15ATEX0544X** Issue: **4**

Equipment: **Flow- / Consumption Sensor VA 550 Ex resp. VA 570 Ex**

Manufacturer: **CS Instruments GmbH & Co.KG**

Address: **Zindelsteiner Straße 15
78052 Villingen-Schwenningen
Germany**

This product and any acceptable variation thereto, is specified in the schedule to this certificate and the documents therein referred to.

CSA Group Netherlands B.V., Notified Body No. 2813 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in item 16.2.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018/AC:2020-02 EN 60079-1:2014 EN 60079-31:2014

Where additional criteria beyond those given here have been used, they are listed in item 18 in the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed in item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product, these are not covered by this certificate.

The marking of the product shall include the following (additional marking is provided in the Schedule as a part of item 15, if applicable):



II 2G Ex db IIC T4 Gb
II 2D Ex tb IIIC T90°C Db

Signed: M Halliwell
Title: Senior Director of Operations
Date: 03 October 2025



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CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands.



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SCHEDULE

14 EU-Type Examination Certificate Number: ZELM 15ATEX0544X Issue: 4

15 Description:

The flow / consumption probe VA 550 Ex or 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 separate EC-type examination certificate corresponding 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 separate EC type-examination certificate according to certified sealing plugs

The measured values or settings are displayed via a 2" TFT display. The operation or adjustment of the flow / consumption probe VA 550 Ex or 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 4-20mA 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)	U_n	=	36	VDC
Power input (nominal value)	P_n	=	5	W

The equipment complies with the requirement of IP65 as per EN IEC 60079-0:2018 and EN 60079-31:2014.

Variation 1 - This variation introduced the following changes:

i. The change of Applicants name and address as follows:

From:	To:
CS Instruments GmbH & Co. KG	CS Instruments GmbH & Co.KG
Am Oker 28c	Zindelsteiner Straße 15
24955 Harrislee	78052 Villingen-Schwenningen
Germany	Germany

Variation 2 - This variation introduced the following changes:

- To change maximum measuring tip length from 600 mm to 1500 mm of the flow/consumption probe VA 550 Ex.
- Upgrade the standard from EN 60079-0:2012 + A11:2013 to EN IEC 60079-0:2018/AC:2020-02.
- Upgrade the ingress protection from IPX4 to IPX5.

16 Drawings and documents:

16.1 Technical documents:

Refer to Certificate Annex.



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QD-1589 Issue Date: 2025-06-20

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16.2 Associated reports and certificate history:

Issue	Date	Report number	Comment
0	04 April 2018	18PP129-01	The release of the prime certificate.
1	13 December 2018	18PP129-01_1	The introduction of Issue 1, changes detailed in the report.
2	20 December 2018	18PP129-01_2	The introduction of Issue 2, changes detailed in the report.
3	17 May 2021	R80067536A	This Issue covers the following changes: <ul style="list-style-type: none">• Transfer of certificate ZELM 15ATEX0544X from KIWA Nederland B.V. to CSA Group Netherlands B.V..• The introduction of Variation 1.
4	03 October 2025	R80220371A	The introduction of Variation 2.

17 Specific conditions of use (denoted by "X" after the certificate number):

- 17.1 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.
- 17.2 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.
- 17.3 The repair is not permitted on the pressure-resistant housing of the flow / consumption probe VA 550 Ex or VA 570 Ex, including flameproof plug-in gaps.
- 17.4 The type of protection depends on the proper selection and installation of the cable glands and plugs. All openings must be provided with appropriate cable glands or blanking plugs for unnecessary openings. Only cable and cable entries and blanking elements certified according to the standards EN 60079-0, EN 60079-1 and EN 60079-31 with separate EU-type examination certificate may be used. These must be certified at least for a temperature range of -20°C to + 95°C. The cable glands and sealing plugs used must have a thread size M20x1.5. The screw-in depth must be at least 8 mm.
- 17.5 The device may only be used with the harmonized cables suitable for the cable glands. These must be suitable for at least a service temperature range of -20°C to + 95°C.

18 Essential health and safety requirements of Annex II (EHSRs):

The relevant EHSRs that are not addressed by the standards listed in item 9 of this certificate have been identified and conformity of the product demonstrated in the reports listed in item 16.2.

19 Remarks and additional information:

The use of this certificate is subject to the regulations applicable to holders of CSA Group Netherlands B.V. certificates.

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

19.1 Conditions of manufacture:

None



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Certificate Annexe

Document History

Issue - 0 – refer to the report in Section 14.2.

Issue - 1 - refer to the report in Section 14.2.

Issue - 2 – refer to the report in Section 14.2.

Issue - 3

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
020 001 008	1 of 1	5.00	07 May 21	Typenschilder VA 550 Ex / VA 570 Ex

Issue - 4

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
06950550	1 of 1	B	20 Aug 25	VA550Ex_lang
06950570	1 of 1	B	20 Aug 25	VA570Ex_kurz
Tech. Description_VA 550 Ex_VA 570 Ex	1 to 15	1.08	20 Aug 25	Technical description for EC type-examination certificate of the Flow / consumption sensors VA 550 Ex / VA 570 Ex
020001953-0017	1 of 1	-	20 Aug 25	VA550Sensor+2xPT-Sensoren - o.-Skala – ex 700er Version - ex
020001953-0018	1 of 1	-	20 Aug 25	VA550Sensor+2xPT-Sensoren - o.-Skala – ex 800 Version - Ex
020001953-0019	1 of 1	-	20 Aug 25	VA550Sensor+2xPT-Sensoren - o.-Skala – ex 1000 Version
020001953-0020	1 of 1	-	20 Aug 25	VA550Sensor+2xPT-Sensoren - o.-Skala – ex 1500 Version
BoM VA550 Ex	1 of 1	-	20 Aug 25	BoM VA550 Ex
BoM VA570 Ex	1 of 1	-	20 Aug 25	BoM VA570 Ex
VA 550 Ex / VA570 Ex	1 to 10	V1.11	17 Sep 25	Flow / Consumption Sensor VA 550 Ex / VA 570 Ex, Ex-Documentation
020001009	1 to 56	V1.30	20 Aug 25	Instruction manual Flow Sensor VA 550 (Insertion type)
020001008	1 of 1	7	16 Sep 25	Typenschilder VA 550 Ex / VA 570 Ex