1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 24ATEX1057X** Issue: **0**

4 Equipment: **Flow- / Consumption Sensor KEC-3 and KEC-4**

5 Applicant: **Kobold Messring GmbH**

6 Address: Nordring 22-24
65719 Hofheim am Taunus
Germany

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment 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 Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012 + A11:2013 EN 60079-1:2014 EN 60079-31:2014

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

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

Signed: M Halliwell

Title: Director of Operations

PRODUCTS
RvA C 652

SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **CSANe 24ATEX1057X**
Issue 0

13 DESCRIPTION OF EQUIPMENT

The flow / consumption probe KEC-3 or KEC-4 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 aluminium 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 aluminium housing. The electrical connection to the outside via one or two with separate EU-type examination certificate corresponding certified cable and cable entries, which are bolted into the aluminium die-cast housing. Unused entries in the aluminium die-cast housing must be closed with a separate EU-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 KEC-3 or KEC-4 is done visually via the sight glass in the housing cover. The measured value is output via Modbus RTU or via two 4-20mA analogue outputs.

The flow / consumption probe KEC-3 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 600 mm.

The flow / consumption probe KEC-4 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

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	22 March 2024	R80200500A	The release of the prime certificate.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 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.

15.2 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.

15.3 The repair is not permitted on the pressure-resistant housing of the flow / consumption probe KEC-3 or KEC-4 including flameproof plug-in gaps.

15.4 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 and EN 60079-1 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.

15.5 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.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Annexe

Certificate Number: **CSANe 24ATEX1057X**

Equipment: **Flow- / Consumption Sensor KEC-3 and KEC-4**

Applicant: **Kobold Messring GmbH**

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
020 005 xxx	1 of 1	V1.00	19 Mar 24	Nameplates KEC-3/KEC-4