# IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

#### **EU-TYPE EXAMINATION CERTIFICATE** - Translation [1]

[2] Equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU



EU-type examination certificate number IBExU10ATEX1067 | Issue 2 [3]

[4] Product: Ultrasonic flowmeter

Types: 608-A, 608-B

[5]

Manufacturer: FLEXIM Flexible Industriemesstechnik GmbH

[6] Address: Boxberger Str. 4 12681 Berlin GERMANY

- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 in accordance with Article 17 [8] of 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 test report IB-21-3-0234.

- [9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018, EN 60079-11:2012, EN 60079-15:2010 and EN 60079-31:2014 except in respect of those requirements listed at item [18] of the schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.
- This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:

608-A

(x) II 3G Ex nA nC ic IIC (T6) T4 Gc ( II 2D Ex th IIIC T100 °C Db -10 °C ≤ Ta ≤ +50 °C/ +60 °C

608-B

( II 3G Ex nA nC ic [ic] ||C (T6) T4 Gc (2) II 2D Ex th IIIC T100 °C Db -10 °C ≤ Ta ≤ +50 °C/ +60 °C

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By order

Dipl.-Ing. Willamowski

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elle Ex

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Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2022-04-08

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[13] Schedule

[14] Certificate number IBExU10ATEX1067 | Issue 2

### [15] Description of product

The ultrasonic flow transmitter is designed for the measurement of flow rate in fluids (liquid or gaseous) in piping. It is a portable flow transmitter for the mobile and temporary duty in a plant. It can be used with an external power supply unit or with the internal battery. The energy emitted by the connected ultrasonic transducers is limited by the ultrasonic flow transmitter.

In gas atmospheres (group IIC environments) the transmitter may also be used with permanent power supply.

#### **Technical data**

Ambient temperature: -10 °C to +50 °C (T6) or +60 °C (T4)

#### **Electrical data**

Rated voltage: 10.5...15 V DC

U<sub>m</sub>: 16 V Power input: < 18 W

Battery: Li-lon, 7.2 V / 6.36 Ah

### Connection for ultrasonic transducer 608-A and 608-B

Output voltage:  $\leq$  120 V (0.15...4 MHz)

Output power: < 1 W

#### Communication interfaces type of protection Ex nA:

- RS232

- USB (only for use outside explosive atmospheres)

#### Signal Outputs type of protection Ex nA:

- Current active and passive
- Frequency
- Binary

#### Signal Inputs type of protection Ex ic (type 608-B):

- Temperature
- U<sub>o</sub> 22 V
- lo 6 mA
- Po 33 mW
- Co 450 nF
- Lo 10 mH
- C<sub>i</sub> 1.8nF
- L<sub>i</sub> 10 µH

Standard Pt100 and Pt1000 sensors may be connected to the intrinsically safe temperature inputs as "simple apparatus" in accordance with EN/IEC 60079-11.

Variations compared to the issue1 of the certificate:

- The Ex-marking has been updated.
- The permission for mobile use is written into the manual.
- The name was changed from \*60\*\*\*-A2 to 608-A and 608-B.
- Some constructive changes there done.
- The summarizing of drawings was done.
- The new standard EN IEC 60079-0:2018 are used.

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#### [16] Test report

The test results are recorded in the confidential test report IB-21-3-0234 of 2022-04-08. The test documents are part of the test report and they are listed there.

### Summary of the test results

The ultrasonic flowmeter type 608-A and 608-B fulfills the requirements of protection by enclosure of the Equipment Group II, Explosion Group IIIC and Category 2D and the requirements for non-sparking device as well as intrinsic safety of the category 3G.

### [17] Specific conditions of use

none

#### [18] Essential health and safety requirements

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: None

### [19] Drawings and Documents

The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH Fuchsmühlenweg 7 09599 Freiberg, GERMANY

By order

Dipl. Ing. Willamowski

Freiberg, 2022-04-08

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