



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

[2] Equipment
of equipment-groups I and II, equipment-categories M2 and 2 plus 3

[3] Type examination certificate number **IBExU12ATEXB027 X** | Issue 1

[4] Product: **Flow Sensor**
Type: SS 20.600 Ex

[5] Manufacturer: SCHMIDT Technology GmbH

[6] Address: Feldbergstraße 1
78112 St. Georgen / Schwarzwald
GERMANY

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

[8] IBExU Institut für Sicherheitstechnik GmbH 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in the confidential test report IB-22-3-0046.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018, EN IEC 60079-7:2015 + A1:2018, EN 60079-11:2012 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.

[11] This type examination certificate relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured or supplied.

[12] The marking of the product shall include the following:

II 3G Ex ec ic IIC T4 Gc X
 II 3D Ex ic tc IIIC T135°C Dc X
-20 °C ≤ T_{amb} ≤ +70 °C

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

Dipl.-Ing. Willamowski

- Stamp -

Freiberg, 2022-08-26

[13] **Schedule**

[14] **Certificate number IBExU12ATEXB027 X | Issue 1**

[15] **Description of product**

The flow sensor is used for stationary measurement of flow velocity and temperature of gaseous media. The device is intended for use in potentially explosive atmospheres where equipment of category 3G or 3D is required. The sensor probe which is in contact with the medium is operated in an intrinsically safe circuit.

Technical data:

| | |
|-------------------------------------|----------------------------------|
| Ambient temperature of enclosure: | -20 °C up to +70 °C |
| Medium temperature of sensor probe: | -40 °C up to +120 °C |
| Degree of protection of enclosure: | IP65 in accordance with EN 60529 |
| Degree of protection of sensor: | IP67 in accordance with EN 60529 |

Electrical data

| | |
|---|---|
| Rated voltage of sensor: | $U_N = 24 \text{ V DC} \pm 20 \%$ |
| Current consumption of sensor: | $I_N \leq 250 \text{ mW}$ |
| Signal interface - current: | $I_{Out} = 4 \dots 20 \text{ mA}$ |
| Signal interface - voltage: | $U_{Out} = 0 \dots 10 \text{ V}$ |
| Signal interface - pulse: | $f_{Out} = 0 \dots 100 \text{ Hz}$ $U_{max.} = 28.8 \text{ V}$ $I_{max} = 100 \text{ mA}$ |
| Signal interface - relay (galvanically isolated): | $f_{Out} = 0 \dots 100 \text{ Hz}$ $U_{max.} = 30 \text{ V}_{DC} / 21.8 \text{ V}_{AC}$ $I_{max} = 50 \text{ mA}$ |

Changes compared to type examination certificate IBExU12ATEXB027 X:

Modification 1

Minor design changes at sensor enclosure.

Modification 2

The current edition of the standard EN IEC 60079-0:2018 is applied.

Modification 3

The product is also suitable for dust Ex.

Modification 4

The standard EN IEC 60079-7:2015/A1:2018 is applied instead of EN 60079-15.

[16] **Test report**

The test results are recorded in the confidential test report IB-22-3-0046 of 2022-08-25. The test documents are part of the test report and they are listed there.

Summary of the test results

The flow sensor SS 20.600 Ex fulfills the requirements of explosion protection for electrical equipment of Equipment Group II and Category 3G in type of protection increased safety "ec" with an internal circuit according to type of protection intrinsic safety "ic" for explosion group IIC and temperature class T4 as well as equipment category 3D in type of protection by enclosure "tc" with an internal circuit according to type of protection intrinsic safety "ic" for explosion group IIIC with maximum surface temperature of 135 °C.

[17] **Specific conditions of use**

- The internal intrinsically safe circuit is isolated up to 30 V from the sensor enclosure.
- There is a power supply for protection class III (PELV).

[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.

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