

**Type Examination Certificate SS 23.700 Ex
Manufacturer's self-declaration**



Product: **Flow Sensor**
Type: **SS 23.700 Ex**
Mat.-Nr.: **569 700**

Producer: **SCHMIDT Technology GmbH**
Address: Feldbergstraße 1
78112 St. Georgen / Schwarzwald
Germany

SCHMIDT Technology 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 „Prüfbericht-SS23.700Ex“.

Compliance with the essential health and safety requirements has been assured in accordance with the following standards:

- EN IEC 60079-0:2018**
- EN IEC 60079-7:2015/A1:2018**
- EN 60079-11:2012**
- EN 60079-31:2014**

The sign "X" after the marking indicates that this product is subject to specific conditions of use as stated on page 2 of this certificate.

This test certificate relates only to the design of the specified equipment and not to the specific items of equipment subsequently manufactured or supplied.

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

Type Examination Certificate SS 23.700 Ex Manufacturer's self-declaration



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: -20 °C up to +120 °C
Degree of protection of enclosure: IP66 acc. to EN 60529
Degree of protection of sensor probe: IP67 acc. to EN 60529

Electrical data

Rated voltage of sensor: $U_N = 24 V_{DC} \pm 20 \%$
Current consumption of sensor: $I_N \leq 250 \text{ mA}$
Signal interface - current: $I_{Out} = 4 \dots 20 \text{ mA}$
Signal interface - voltage: $U_{Out} = 0 \dots 10 \text{ V}$
Signal interface - pulse: $f_{Out} = 0 \dots 100 \text{ Hz}$
 $U_{max} = 28,8 V_{DC}$
 $I_{max} = 100 \text{ mA}$
Signal interface - relay: $f_{Out} = 0 \dots 100 \text{ Hz}$
 $U_{max} = 30 V_{DC} / 21,8 V_{AC}$
 $I_{max} = 50 \text{ mA}$

Summary of test results

The flow sensor SS 23.700 Ex fulfils the requirements of explosion protection for electrical equipment of equipment group II in:

- Equipment 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..
- 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 IIC with maximum surface temperature of 135 °C.

Specific conditions of use

- The internal intrinsically safe circuit is isolated up to 30 V from the enclosure.
- A power supply according to protection class III (PELV) is required.

SCHMIDT Technology GmbH
Feldbergstr. 1 · D-78112 St. Georgen/Schwarzwald
Tel. +49(0) 77 24 / 899-0 · Fax +49(0) 77 24 / 899-101

Dipl. Ing. M. Schmitt
Authorised representative ATEX

- Stamp -

St. Georgen, 04.05.2023