

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



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

[3] EU-type examination certificate number **IBExU16ATEX1109** | Issue 0

[4] Product: **Sludge Layer Sensor**
Type: VISY-Sludge

[5] Manufacturer: FAFNIR GmbH

[6] Address: Schnackenburgallee 149c
22525 Hamburg
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, Notified Body number 0637 in accordance with Article 17 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-16-3-039.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: 60079-0:2012+A11:2013 and EN 60079-11:2012 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 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:

 **II 1G Ex ia IIB T4 Ga**
 $-20\text{ °C} \leq T_a \leq +60\text{ °C}$

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order

Dipl.-Ing. [FH] Henker



- Seal -
(Notified Body number 0637)

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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, 2016-06-09

[13] **Schedule**

[14] **Certificate number IBExU16ATEX1109 | Issue 0**

[15] **Description of product**

The Sludge Layer Sensor type VISY-Sludge serves for determining from the sensor to a sludge layer which is located on the bottom of a light liquid separator. The measuring principle is ultrasonic which is generated by piezo elements.

The Sludge Layer Sensor is assembled in a cylindrical stainless steel enclosure with a bottom, made of plastic.. The piezo elements are located behind the bottom.

On the top of the enclosure are the connector and the connection facility for equipotential bonding.

Technical Data

Ambient temperature: -20 °C to +60 °C

Degree of protection: ≥ IP20

Electrical Data

Intrinsic safe circuit Ex ia IIB

- Input voltage: $U_i \leq 15 \text{ V}$
- Input current: $I_i \leq 60 \text{ mA}$
- Input power: $P_i \leq 100 \text{ mW}$
- Internal inductance: $L_i < 50 \mu\text{H}$
- Internal capacitance: $C_i < 10 \text{ nF}$

[16] **Test report**

The test results are recorded in the confidential test report IB-16-3-039 of 2016-06-08.

The test documents are part of the test report and they are listed there.

Summary of the test results

The Sludge Layer Sensor type VISY-Sludge fulfils the requirements of explosion protection on intrinsic safe equipment for the Equipment Group II and Category 1G in type of protection Intrinsic safety 'ia' of the Explosion Group IIB.

[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**

<i>Number</i>	<i>Sheet</i>	<i>Issue</i>	<i>Date</i>	<i>Description</i>
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The documents are listed in the test report.

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