[1] EU-TYPE EXAMINATION CERTIFICATE - Translation

[2] Safety devices, controlling devices or regulating devices intended for use outside a potentially explosive atmosphere but required for or contributing to the safe functioning of equipment and protective systems with respect to the risks of explosion, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU26ATEX1028 X** | Issue 0

[4] Product: **Safety Barrier**
Type: SB 3 V2

[5] Manufacturer: FAFNIR GmbH

[6] Address: Schnackenburgallee 149 c
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 IB2630029.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN IEC 60079-0:2018 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:

Ⓔx II (1) G [Ex ia Ga] IIC
Ⓔx II (1) D [Ex ia Da] IIIC

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By order

Dr.-Ing. P. Cimalla

- Seal -
(notified body number 0637)

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, 2026-10-19

[13] **Schedule**

[14] **Certificate number IBExU26ATEX1028 X** | Issue 0

[15] **Description of product**
The safety barrier type SB 3 V2 is an associated apparatus and used to connect intrinsically safe sensors (four-wire) to non-intrinsically safe circuits.
The safety barrier must be installed outside of the hazardous area.

Technical data:

Ambient temperature range: -25 °C ... +70 °C

Supply circuit
Nominal voltage for Channel 1 (power supply): U = 24 VDC
Nominal voltage for Channel 2 (A) and Channel 3 (B): U = 5 VDC
Maximum voltage: U_m = 253 V

Intrinsically safe output parameters:

Channel 1:
Maximum output voltage: U_o = 28.35 V
Maximum output current: I_o = 63.5 mA
Maximum output power: P_o = 450 mW

Channel 2 and Channel 3:
Maximum output voltage: U_o = 7.14 V
Maximum output current: I_o = 16 mA
Maximum output power: P_o = 28.5 mW

Maximum values:
Maximum output voltage: U_o = 28.35 V
Maximum output current: I_o = 95.5 mA
Maximum output power: P_o = 507 mW

The output characteristic is linear.

Maximum permissible external capacitance and inductance:

	IIB / IIIC	IIC	
L_o	5 mH	150 µH	500 µH
C_o	200 nF	79 nF	50 nF

Maximum L_o/R_o ratio for resistance limited power sources:

	IIB / IIIC	IIC
L_o/R_o	316.04 µH/Ω	79.01 µH/Ω

[16] **Test report**
The test results are recorded in the confidential test report IB2630029 of 2026-10-16.

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

Summary of the test results
The safety barrier type SB 3 V2 fulfils the requirements for associated apparatus providing intrinsically safe circuits of Equipment Group II, Categories (1) G and (1) D, Explosion Groups IIC and IIIC.

[17] **Specific conditions of use**

1. The safety barrier can be used in an extended ambient temperature range of -25 °C up to +70 °C.
2. The equipotential bonding connection must be connected to the equipotential bonding system of the installation. The safety barrier does not meet the dielectric strength requirements to earth. When carrying out an insulation test on the intrinsically safe circuit, the device must therefore be disconnected from equipotential bonding.

[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
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09599 Freiberg, GERMANY

By order

Dr.-Ing. P. Cimalla

Freiberg, 2026-10-19