IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx IBE 26.0027X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2026-10-19		
Applicant:	**FAFNIR GmbH** Schnackenburgallee 149 c 22525 Hamburg **Germany**		
Equipment:	**Safety Barrier type SB 3 V2**		
Optional accessory:			
Type of Protection:	**Intrinsic safety "i"**		
Marking:	[Ex ia Ga] IIC [Ex ia Da] IIIC		

Approved for issue on behalf of the IECEx Certification Body: **Dr.-Ing. Peter Cimalla**

Position: **Deputy Head of department Certification Body**

Signature: (for printed version)

Date: (for printed version) 2026-10-19

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg
Germany

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Manufacturer: **FAFNIR GmbH**
Schnackenburgallee 149 c
22525 Hamburg
Germany

Manufacturing locations: **FAFNIR GmbH**
Schnackenburgallee 149 c
22525 Hamburg
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/IBE/ExTR26.0034/00

Quality Assessment Report:

DE/TUN/QAR06.0013/11

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

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 potentially explosive area.

Technical data:

Ambient temperature range:	T_a	-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.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The safety barrier can be used in an extended ambient temperature range of -25 °C up to +70 °C.

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.

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Equipment (continued):

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