



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 TUR 19.0008X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2023-05-11
Applicant: **K. A. Schmersal GmbH & Co. KG**
Möddinghofe 30
42279 Wuppertal
Germany
Equipment: **Safety-Sensor EX-BNS 40S-12Z[1]-[2]-2GD [3]**
Optional accessory:
Type of Protection: **mb**
Marking: Ex mb IIC T6 Gb
Ex mb IIIC T80°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Christian Mehrhoff

Position:

Assigned certifier

Signature:
(for printed version)



2023-05-11

Date:
(for printed version)

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





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Manufacturer: **K. A. Schmersal GmbH & Co. KG**
Möddinghofe 30
42279 Wuppertal
Germany

Manufacturing
locations:

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 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

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/TUR/ExTR19.0008/00](#)

Quality Assessment Report:

[DE/TUR/QAR11.0008/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and type

Type code EX-BNS 40S-12Z[1]-[2]-2GD [3]

EX-BNS 40S-12Z[1]-[2]-2GD [3]

[1]	LED
(leer/blank)	Without LED
G	With LED
[2]	Mounting
(leer/blank)	Through-holes
C	Rear-side threaded hole
[3]	Cable length
(leer/blank)	Cable length 1 meter
5M	Cable length 5 meter
10M	Cable length 10 meter
20M	Cable length 20 meter
XM	Cable length X meter

General product information

The safety Sensor type EX-BNS 40S-12Z[1]-[2]-2GD [3] is designed in type of protection Equipment protection by encapsulation "m".

The Safety Sensor type EX-BNS 40S-12Z[1]-[2]-2GD [3] is used for safe position monitoring of moveable guards acc. to ISO 14119 and IEC 60947-5-3. It can be used for position monitoring of doors and flaps in hazardous areas in Zone 1 / 2 and 21 / 22 category 2 and 3.

The sensor consists of a metal housing in which a printed circuit board with reed contacts is completely potted.

The circuit board is connected via a permanently connected cable which is lead via a borehole into the enclosure.

The sensor can be equipped optionally with a LED for visual indication of the switching status. This LED is a divergent optical source. So the IEC 60079-28 is not applicable..

Technical data

Rated switching voltage	AC/DC	24 V
Rated switching current	max.	10 mA
Rated switching Power	max.	3 mW
Input short circuit current	max.	10 mA

Ambient temperature range $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The device with an LED must be protected against direct UV light
2. The device must be electrically connected to a part that is connected to external bonding
3. The user must provide a protective device to ensure that the specified maximum electrical values are maintained.