



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 BVS 18.0040X	Page 1 of 5	<u>Certificate history:</u> Issue 0 (2018-07-10)
Status:	Current	Issue No: 1	
Date of Issue:	2022-06-27		
Applicant:	BROSA GmbH Dr. Klein Straße 1 88069 Tettwang Germany		
Equipment:	Angle sensor type 0813		
Optional accessory:			
Type of Protection:	Equipment protection by flameproof enclosures "d"		
Marking:	Ex db IIB T4 Gb	Variant with separately certified cable gland with sealing ring.	
	Ex db IIC T4 Gb	Variant with separately certified cable gland with setting compound or separately certified plug / socket system.	


Approved for issue on behalf of the IECEx
Certification Body:

Dr Franz Eickhoff

Position:

Lead Auditor and officially recognised expert

Signature:
(for printed version)


2022-06-27

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:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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Manufacturer: **BROSA GmbH**
Dr. Klein Straße 1
88069 Tettnang
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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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/BVS/ExTR18.0040/00](#)

Quality Assessment Report:

[DE/BVS/QAR13.0016/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and type

Angle sensor type 0813

Description

The angle sensor is designed in type of protection Flameproof Enclosure "d" for use in potentially explosive gas atmospheres.

The type 0813 consists of three enclosure parts. A baseplate for mounting it on the machine, a cylindrical housing for the measuring equipment and a screwed on lid.

The enclosure could be made of an aluminium alloy, steel or stainless steel.

The variant of the angle sensor type 0813 used with a separately certified cable gland which has got a sealing ring is suitable for use in areas with Gas Group IIB. The variant of the angle sensor type 0813 used with a separately certified cable gland with potting compound or with a separately certified plug / socket system is suitable for use in areas with Gas Group IIC.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The free ending of the supply lead must be connected outside from explosive hazardous areas or within a suitable and separately certified terminal box.

Fasteners with a screw quality of 8.8 minimum have to be used for the closing of the flameproof enclosure. A related note is part of the manual.

The lengths of the flameproof joints are in parts longer and the gaps of the flameproof joints are in parts smaller than the values of table 2 and 3 of EN 60079-1:2014. For information of the dimensions of the flameproof joints contact the manufacturer.



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Equipment (continued):

Parameters

Electrical parameters

Input voltage U_{in}	DC	9 up to 36	V
Input current I_{in}		5 up to 100	mA
Output voltage U_{out}	DC	0 up to 10	V
Output current I_{out}		0 up to 25	mA

Thermal parameters

Ambient temperature range	$-40\text{ °C} \leq T_{amb} \leq +80\text{ °C}$
Temperature class	T4



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

The limited liability company was created by changing the form of the public limited company. There is no influence on the Certificate of Conformity of the explosion-proof device.