



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx BVS 07.0031 issue No.:2

Status: **Current**

Date of Issue: **2016-04-04**

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Certificate history:

Issue No. 2 (2016-4-4)
Issue No. 1 (2013-1-22)
Issue No. 0 (2007-12-14)

Applicant: **Rechner Industrie-Elektronik GmbH**
Gaußstraße 8-10
68623 Lampertheim
Germany

Electrical Apparatus: **Proximity switch type *AS-*0-***-***-***-*****
Optional accessory:

Type of Protection: **Equipment protection by intrinsic safety "i"**

Marking: Ex ia IIC T1 - T6 Ga
Ex ia IIIC T101°C Da additionally for type *AS-*0-***-***-***-StEX

*Approved for issue on behalf of the IECEx
Certification Body:*

H.-Ch. Simanski

Position:

Head of Certification Body

*Signature:
(for printed version)*

Date:

4.4.2016

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany



On the safe side.



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Manufacturer: **Rechner Industrie-Elektronik GmbH**
Gaußstraße 8-10
68623 Lampertheim
Germany

Additional Manufacturing location
(s):

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 electrical apparatus 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 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 6.0

*This Certificate **does not** indicate compliance with electrical 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/ExTR07.0037/02](#)

Quality Assessment Report:

[DE/BVS/QAR07.0008/06](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Subject and Type

See Annex

Description

The proximity switch is used for detection of levels and distances. The electrical components are completely encapsulated in an enclosure. For display of the switching modus a LED is used, which is visible from the outside.

The proximity switch is connected either by a permanent cable of up to 200 m length or by a plug and socket. If the sensor is located in areas which require equipment of EPL Ga or Da, the cable leading is tightened by a cable gland. The cable is protected against electrostatic charges by a metal braid or tube.

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT(continued):

Parameters

Type *AS-*0-***-N-***-***

Voltage	Ui DC	15	V
Current	li	30	mA
Power	Pi	100	mW
Effective internal capacitance	Ci	250	nF
Effective internal inductance	Li		
Type IAS -30-***-N-***-***		2	mH
Type KAS -40-***-N-***-***		0.2	mH

Type KAS-40-***-IL-***-***

Voltage	Ui DC	27	V
Current	li	88	mA
Power	Pi	576	mW
Effective internal capacitance	Ci	89	nF
Effective internal inductance	Li	0.2	mH

Ambient temperature range	Ta	
For temperature class T6 and T5		-20 °C up to + 40 °C
For temperature class T4		-20 °C up to + 80 °C
For temperature class T3, T2 and T1		-20 °C up to + 100 °C

Additionally for type *AS-*0-***-***-***-StEX:

Max. surface temperature	101 °C
Permitted ambient temperature	-20 °C up to + 90 °C



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

A further version with analogue output type KAS-40-***-IL*-***-*** was added to the capacitive sensors.
The electrical circuit of the inductive sensors with a diameter of less than 12 mm type IAS-30-***-N-***-*** was replaced by a new circuit.
New plastic materials for the enclosure PBT and LCP were added.
In contrast to the previous issue of this Test Report, the standard IEC 60079-26 is not listed anymore. IEC 60079-26 does not impose further requirements on Proximity switch as all circuits are intrinsically safe, level of protection "Ex ia".