



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.:0 Certificate history:

Status: Current

Date of Issue: 2007-12-14 Page 1 of 4

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

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


Type of Protection: Intrinsic safety "i"; Protection by enclosures "tD"

Marking: Ex ia IIC T1-T6;
Ex tD A20 IP67 T101 °C

Approved for issue on behalf of the IECEx Certification Body: Dr. R. Jockers

Position: Head of Certification Body

Signature:
(for printed version)



14.12.2007

Date:

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





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

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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

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/ExTR07.0037/00](#)

Quality Assessment Report:

[DE/BVS/QAR07.0008/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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. For electrical connection a cable with a length of up to 200 m is used.

Model/type reference

Proximity switch type *AS-0-***-***-***-N

Instead of the *** in the complete denomination letters and numerals will be inserted which characterize modifications as type KAS-40-***-***-***-N = capacitive sensor, type IAS-30-***-***-***-N = inductive sensor, mounting options, thread, etc.

The capacitive sensor type KAS-0-***-***-***-N with 38 mm in diameter and without potentiometer can be additional marked with LEAK (e.g. KAS-40-LEAK-PTFE-N).

The proximity switch type *AS-0-***-***-***-N can also be equipped with a metal plug and socket. This is protected against accidental separation by means of a clip.

The following types meet as well category 1D:

IAS-30-***-***-A12-N
IAS-30-***-***-A22-N
IAS-30-***-***-A13-N
IAS-30-***-***-A23-N
IAS-30-***-***-A14-N
IAS-30-***-***-A24-N
IAS-30-30-N-M32
IAS-30-35-N-M32

In case of the sensor is completely mounted in zone 20, the cable leading in that zone 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):

Marking

Types

IAS-30-***-***-A12-N,
IAS-30-***-***-A22-N,
IAS-30-***-***-A13-N,
IAS-30-***-***-A23-N,
IAS-30-***-***-A14-N,
IAS-30-***-***-A24-N,
IAS-30-30-N-M32,
IAS-30-35-N-M32:

Ex ia IIC T1 - T6
Ex tD A20 IP67 T101°C

All other types:

Ex ia IIC T1 - T6

Ratings

Electrical data:

voltage	Ui	DC	15	V
current	Ii		30	mA
power	Pi		100	mW
effective internal capacitance	Ci		250	nF
effective internal inductance	Li			
for type IAS -30-***-***-***-N			2	mH
for type KAS -40-***-***-***-N			0.2	mH

Thermal data:

for category 2G
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

for category 1D

max. surface temperature T 101 °C
permitted ambient temperature -20 °C up to + 90 °C
for category 1D
Degrees of protection according to EN 60529 IP67