



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 07.0031X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 4	Issue 3 (2018-11-16)
Date of Issue:	2023-03-03		Issue 2 (2016-04-04)
			Issue 1 (2013-01-22)
			Issue 0 (2007-12-14)
Applicant:	Rechner Industrie-Elektronik GmbH Gaußstraße 8-10 68623 Lampertheim Germany		
Equipment:	Proximity switch type *AS*0*.*.*.*.*		
Optional accessory:			
Type of Protection:	Intrinsic Safety "i"		
Marking:	Ex ia IIC T1...T6 Ga Ex ia IIIC T ₂₀₀ 135°C Da		

Approved for issue on behalf of the IECEx
Certification Body:

Dr Franz Eickhoff

Position:

**Senior Lead Auditor, Certification Manager and officially
recognised expert**

Signature:
(for printed version)


2023-03-03

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





IECEX Certificate of Conformity

Certificate No.: **IECEX BVS 07.0031X**

Page 2 of 4

Date of issue: 2023-03-03

Issue No: 4

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

Manufacturing locations: **Rechner Industrie-Elektronik GmbH** **Rechner Korea Co., Ltd.**
Gaußstraße 8-10 A-1408 Ho, Keumgang Penterium IT
68623 Lampertheim Tower
Germany 282 Hakeui-ro
Dongan-gu, Anyang City
Gyeonggi-Do 14056
Korea, Republic of

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

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/ExTR07.0037/03](#)

Quality Assessment Reports:

[DE/BVS/QAR07.0008/13](#)

[DE/BVS/QAR17.0015/05](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX BVS 07.0031X**

Page 3 of 4

Date of issue: 2023-03-03

Issue No: 4

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.

Listing of all components used referring to older standards

None

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

For EPL Ga only:

- Intensive charging processes of the permanently connected cable must be avoided.
- Intensive charging processes of the plastic enclosures are to be avoided.
- On the additional type plate, intensive charging processes are to be avoided if this is attached to a metallic surface.

For EPL Ga and Da:

- The metallic enclosure of the proximity switches must be included in the local equipotential bonding.
- The metallic cable entry of the proximity switches must be included in the local equipotential bonding.
- The shield of the permanently connected cable must be included in the local equipotential bonding.
- The cables used must be fixed in place during installation.



IECEX Certificate of Conformity

Certificate No.: **IECEX BVS 07.0031X**

Page 4 of 4

Date of issue: 2023-03-03

Issue No: 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Examination according to the current standard
- Extension of the type code
- Extension with new / modified circuit diagrams
- Adaptation of the parameters
- Updating the documents
- Approval of new variants KAS-40-LEAK-N**-*-* and KAS-40-D10-N**-K-*
- Change of marking for dust applications to "II 1D Ex ia IIIC T₂₀₀135°C Da".
- The IEC 60079-26 standard - in contrast to the first issue - is no longer attracted in this supplement, as the EPL Ga is guaranteed by intrinsic safety ia.
IEC 60079-26 does not contain any additional requirements for the device.
- X-Marking added

Annex:

[BVS_07_0031X_Rechner_Annex_issue4_.pdf](#)



IECEX Certificate of Conformity



Certificate No.: IECEx BVS 07.0031X issue No: 4
Annex
Page 1 of 2

Subject and Type

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

Instead of ***, letters and numbers are inserted in the full designation to indicate different versions.

Type	*AS-*0	-	*	-	*	*	*	-	*	-	*
											ATEX, naming of zones: 1G, 1D and/or 3D
											If present, marking without relevance for explosion protection
											Extended ambient temperature range: No specification 85C 85 °C 90C 90 °C 100C 100 °C
											If present, marking without relevance for explosion protection
											Output signal: N: NAMUR IL4: Analogue 4...20 mA IL20: Analogue 20...4 mA
											If present, marking without relevance for explosion protection
											IAS-30 inductive KAS-40 capacitive

Parameters

1	For type *AS-*0-*-*-*-*				
	Maximum input voltage	U _i	DC	15	V
	Maximum input current	I _i		30	mA
	Maximum input power	P _i		100	mW
	Effective internal capacitance	C _i		250	nF
	Effective internal inductance	L _i			
	for IAS-30-*-*-*-*			2	mH
	for KAS-40-*-*-*-*			0.2	mH
	Ambient temperature range	T _a			
	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 T ₂₀₀ 135°C			-20 °C up to +100 °C	



IECEX Certificate of Conformity



Certificate No.: IECEx BVS 07.0031X issue No: 4
Annex
Page 2 of 2

2	<u>For type KAS-40*-IL4/IL20**-*-*</u>				
	Maximum input voltage	U _i	DC	27	V
	Maximum input current	I _i		88	mA
	Maximum input power	P _i		576	mW
	Effective internal capacitance	C _i		89	nF
	Effective internal inductance	L _i		0.2	mH
	Ambient temperature range	T _a			
	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 (Type KAS-40*-IL*85C-*-*)			-20 °C up to +	85 °C
	For temperature class T3, T2 and T1 (Type KAS-40*-IL*90C-*-*)			-20 °C up to +	90 °C
	For temperature class T3, T2 and T1 (Type KAS-40*-IL*100C-*-*)			-20 °C up to +100 °C	
	For T ₂₀₀ 135°C			-20 °C up to +100 °C	