



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 20.0061X	Page 1 of 5	<u>Certificate history:</u>
Status:	Current	Issue No: 1	Issue 0 (2020-09-16)
Date of Issue:	2023-10-02		
Applicant:	ifm electronic gmbh Friedrichstrasse 1 45128 Essen Germany		
Equipment:	Capacitive proximity sensors type KlxxxA		
Optional accessory:			
Type of Protection:	Protection by Enclosure 't'		
Marking:	Ex tc IIIC T90°C Dc		

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)


2023-10-02

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





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Manufacturer: **ifm efector gmbh**
ifm-Strasse 1
88069 Tettnang
Germany

Manufacturing
locations: **ifm efector gmbh**
ifm-Strasse 1
88069 Tettnang
Germany

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 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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/ExTR20.0058/01](#)

Quality Assessment Report:

[DE/BVS/QAR06.0010/12](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and type

Capacitive proximity sensors type KI000A, KI001A, KI505A, KI503A, KI530A, KI531A, KI532A and KI533A

Description

The Capacitive proximity sensor type KlxxxA is built in type of protection "tc" Protection by Enclosure for use in areas with EPL Dc.

The sensor consists of a round plastic housing with M30 thread, terminal box and cable gland or M12 plug connector. The M12 connection of the sensor is provided with a separately certified plug and socket type EVC**A (IECEx BVS 08.0041U).

The electronic and the terminal part inside of the plastic housing is partly potted with resin.

The design can be built in a straight version or 90° angle version.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The capacitive proximity sensors type KlxxxA have be to protected against mechanical energy > 4 J and UV light sources.
- The capacitive proximity sensors type KlxxxA and the connection cable have be to protected against electrostatic discharges.



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Equipment (continued):

Parameters

KI000A, KI001A:

Rated voltage: 30 ... 250 V AC / 20 ... 250 V DC

Rated current: 100 mA (150 mA for T_{Amb}: +40 °C)

KI505A, KI503A, KI530A, KI531A, KI532A, KI533A:

Rated voltage: 10 ... 30 V DC

Rated current: 200 mA

Thermal parameters

Rated ambient temperature range:

-20 °C up to +40 °C / +60 °C



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Addition of new types with M12 plug connection