



# 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](http://www.iecex.com)

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Status: **Current** Issue No: 0

Date of Issue: 2023-05-30

Applicant: **KRIWAN Industrie-Elektronik GmbH**  
Allmand 11  
Forchtenberg 74670  
Germany

Equipment: **Protection relay INT69 xxEXF2 Diagnose, AmaControl X (xx is a customization identifier, may be blank or alphanumeric characters referring to product customizations not affecting safety)**

Optional accessory:

Type of Protection: **Associated safety device.**

Marking: [Ex h]  
[Ex Gb]  
[Ex Db]

Approved for issue on behalf of the IECEx  
Certification Body:

Position:

Signature:  
(for printed version)

Date:  
(for printed version)



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Certificate issued by:

**Bureau Veritas Consumer Products Services Germany GmbH**  
Businesspark A96  
86842 Türkheim  
Germany





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Manufacturer: **KRIWAN Industrie-Elektronik GmbH**  
Allmand 11  
Forchtenberg 74670  
**Germany**

Manufacturing locations: **KRIWAN Industrie-Elektronik GmbH**  
Allmand 11  
Forchtenberg 74670  
**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 TS 60079-42:2019-04** Explosive atmospheres - Part 42: Electrical Safety Devices for the control of potential ignition sources from Ex-Equipment  
Edition:1.0

**ISO 80079-36:2016** Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic methods and requirements  
Edition:1.0

**ISO 80079-37:2016** Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"  
Edition:1.0

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/EPS/ExTR23.0039/00](#)

Quality Assessment Report:

[DE/EPS/QAR23.0007/00](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The INT69 xxEXF2 Diagnose protection relay represents one of the most effective and reliable protective measures for electrical machines against impermissible heating and thermal overload. It is suitable for temperature monitoring for both electrical and mechanical equipments that are also operated in potentially explosive atmospheres, such as pumps and agitators.

"Temperature 1 (PTC)" is monitored according to the evaluation procedure of a PTC or a PTC chain connected in series. The monitoring of a PTC sensor switches off the output Relay 1 without delay when the nominal response temperature is reached. A short circuit or an interruption at a temperature input will also cause Relay 1 to switch off. The relay disconnection is interlocked. The error message is retained even if the supply voltage fails in the meantime (zero-voltage safety).

"Temperature 2 (Bimetal)" is monitored according to the evaluation procedure of a bimetal switch. When the bimetal switch is opened, the output relay 1 switches off without delay. The relay disconnection is interlocked. The error message is retained even if the supply voltage fails in the meantime (zero-voltage safety).

Restarting after a lockout is only possible after resetting by pressing the built-in pushbutton or a pushbutton connected to X1/X2.

The INT69 xxEXF2 Diagnose is a universal and versatile protection relay. It stores operating and fault data in a non-volatile memory. This data can be read out and evaluated for diagnostics.

The INT69 xxEXF2 protective relay is installed in a control cabinet outside the EX zone.

There are two voltage variants of the INT69 xxEXF2 Diagnose for different supply voltages, one for 100-240 V~ (22 A 713 P xxx) and one for 24 V~/= (20 A 713 P xxx), where xxx is a number for an Hardware-identical customised variant.

## Electrical data:

100-240 V~ 50/60 Hz  $\pm 10\%$  5 VA (22 A 713 P xxx)  
24 V~/= 50/60 Hz  $\pm 10\%$  5 VA (20 A 713 P xxx)

## Environmental conditions:

$-20\text{ }^{\circ}\text{C} \leq T_a \leq +60\text{ }^{\circ}\text{C}$

## Technical Data:

Safety Integrity Level:	SIL 1
HFT EUC:	0
HFT safety device:	0
Architecture:	1001
Operating mode:	Low Demand
Reaction time::	100 ms
Proof test interval:	105120 h
SFF:	> 45 %
PFDavg:	< 0.055
RRF (22 A 713 P xxx)	10
RRF (20 A 713 P xxx)	100

## SPECIFIC CONDITIONS OF USE: YES as shown below:

The sensor circuits must be designed in a type of protection suitable for the potentially explosive atmosphere and, depending on the requirements, must comply with the EPL Gb, Gc, Db or Dc.



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**Additional information:**

In addition the equipment was also assessed according to EN 50495:2010.