



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 09.0002X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 3 [Issue 2 \(2012-03-23\)](#)
Date of Issue: 2020-12-18 [Issue 1 \(2011-02-17\)](#)
Applicant: **R. STAHL Schaltgeräte GmbH** [Issue 0 \(2009-01-09\)](#)
Am Bahnhof 30
74638 Waldenburg
Germany
Equipment: **I.S. Relay Module type 9172/**-11-00**
Optional accessory:
Type of Protection: **Intrinsic Safety "i", Type of Protection "n", Increased Safety "e"**
Marking:
Ex ec nC [ia Ga] IIC T4 Gc
[Ex ia Da] IIIC

Approved for issue on behalf of the IECEx
Certification Body:

Dr Michael Wittler

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



IECEx Certificate of Conformity

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Page 2 of 4

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Manufacturer: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany

Additional
manufacturing
locations:

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

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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/ExTR09.0004/02](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/16](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 09.0002X**

Page 3 of 4

Date of issue: 2020-12-18

Issue No: 3

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and Type

See Annex

Description of product

The I.S. Relay Module type 9172 is an associated apparatus per IEC 60079-11 equipped with relays in type of protection “nC” and terminals in type of protection “ec”. The intrinsically safe circuits are galvanically separated from each other, as from the non I.S. signal circuits.

The I.S. relay modules type 9172/*0-11-00 and 9172/*2-11-00 receive the signals from the intrinsically safe circuits applied to their input and transmit the signal status to the output and reverse. The type 9172/*1-11-00 receives the signals from the non-intrinsically safe circuit applied to its input and transmits the signal status to the intrinsically safe circuits on the output.

The I.S. Relay Modules may be installed in Zone 2 or outside hazardous areas.

Listing of all components used referring to older standards

None

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

For EPL Gc:

- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with IEC 60079-0.
- For type 9172/*1-11-00: The short-circuit current of the supplying source may not exceed 80 A



IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 09.0002X**

Page 4 of 4

Date of issue: 2020-12-18

Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Assessment of I.S. relay module in accordance with the current standard versions
- Update of marking and documentation
- The standard IEC 60079-26 is not listed anymore, because EPL Ga is ensured by intrinsic safety ia.
The standard IEC 60079-26 does not impose additional requirements on the apparatus.

Annex:

[BVS_09_0002X_RStahl_Annex_issue3.pdf](#)



IECEX Certificate of Conformity



Certificate No.: IECEx BVS 09.0002X issue No: 3
Annex
Page 1 of 2

Subject and Type

I.S. relay module type 9172/**-11-00

Instead of the *** in the complete denomination numerals will be inserted which characterize modifications:

	9172/	*	*	-	1	1	-	0	0
Number of channels:									
1									
2									
Signal:									
0	Coil I.S.								
1	Contact I.S.								
2	Coil and Contact I.S.								

Parameters

- 1 Type 9172/*0-11-00
- 1.1 Intrinsically safe input circuits
Terminals 10 - 11 and 14 – 15

Values for each channel:

Maximum input voltage	U_i	DC	30	V
Maximum input current	I_i		150	mA
Maximum input power	P_i		1.3	W
Effective internal capacitance	C_i			negligible
Effective internal inductance	L_i			negligible

- 1.2 Non-intrinsically safe output circuits
Terminals 1, 2, 3 and 4, 5, 6

Maximum voltage	U_m	AC	253	V
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Values for each channel according to the following table:

Voltage	AC 253	DC 220	AC 125 V	DC 125 V	DC 60 V	DC 30 V
	V	V				
Current	4 A	0.1 A	4 A	0.25 A	0.3 A	4 A
Power	100 VA		100 VA			100 W

- 2 Type 9172/*1-11-00
- 2.1 Non-intrinsically safe input circuits
Terminals 1, 2 and 5, 6

Maximum voltage	U_m	AC	253	V
Nominal voltage	U_n	DC	24	V
Nominal current	I_n		22	mA



IECEX Certificate of Conformity



Certificate No.: IECEx BVS 09.0002X issue No: 3

Annex
Page 2 of 2

2.2 Intrinsically safe output circuits
Terminals 10, 11, 12 and 13, 14, 15

Values for each channel according to the following table:

Voltage U_i	AC 45 V	DC 45 V	DC 30 V
Current I_i	4 A	0.25 A	4 A

Effective internal capacitance	C_i	negligible
Effective internal inductance	L_i	negligible

3 Type 9172/*2-11-00
3.1 Intrinsically safe input circuits
Terminals 10, 11 and 14, 15

Values for each channel:

Maximum input voltage	U_i	DC	30	V
Maximum input current	I_i		150	mA
Maximum input power	P_i		1.3	W

Effective capacitance	C_i	negligible
Effective inductance	L_i	negligible

3.2 Intrinsically safe output circuits (for type 9172/*2-11-00)
Terminals 1, 2, 3 and 4, 5, 6

Values for each channel according to the following table:

Voltage U_i	AC 45 V	DC 45 V	DC 30 V
Current I_i	4 A	0.25 A	4 A

Effective internal capacitance	C_i	negligible
Effective internal inductance	L_i	negligible

4 Ambient temperature range T_a -20 °C up to +70 °C