



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

Certificate No.:  issue No.:

Status:

Date of Issue: **2012-02-01** Page 1 of 3

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

Electrical Apparatus: **I.S. Power Supply type 9143/10-\*\*\*-\*\*\*-\*0**  
*Optional accessory:*

Type of Protection: **Equipment protection by intrinsic safety "i", Equipment protection by type of protection "n"**

Marking: Ex nA [ib Gb] IIC/IIB T4 Gc alternatively Ex nAc [ib] IIC/IIB T4 or  
[Ex ib Gb] IIC/IIB alternatively [Ex ib] IIC/IIB  
[Ex ib Db] IIIC alternatively [Ex ib] IIIC  
[Ex ib Mb] I alternatively [Ex ib] I

*Approved for issue on behalf of the IECEx Certification Body:* H.-Ch. Simanski

*Position:* 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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**DEKRA EXAM GmbH**  
Dinnendahlstrasse 9  
44809 Bochum  
Germany





# IECEx Certificate of Conformity

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Date of Issue: 2012-02-01

Issue No.: 0

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

<b>IEC 60079-0 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011-06</b> Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

*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/ExTR12.0009/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/02](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

#### Description

The Power Supply type 9143 is an associated apparatus per IEC 60079-11 as well as a non-sparking apparatus per IEC 60079-15 (only type 9143/10-\*\*\*-\*\*\*-10).

The intrinsically safe output circuit is galvanically separated from the non I.S. supply circuit.

The power supply is used to supply intrinsically safe equipment in hazardous areas.

#### Type designation

See Annex

#### Parameters

See Annex

### CONDITIONS OF CERTIFICATION: YES as shown below:

For use in Zone 2 the power supply has to be mounted inside an enclosure which is in accordance with IEC 60079-15.





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**Annex**  
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## Electrical parameters

### Non I.S. signal circuits

Input:

Type 9143/10-\*\*\*-\*\*\*-10: 24 V AC/DC : Terminal 7 (+), 9 (-)  
Type 9143/10-\*\*\*-\*\*\*-20: 85...230 V AC Terminal 7 (L), 9 (N)

Maximum safety voltage:  $U_m \leq 253$  V AC

### Intrinsically safe output circuit

Output: Terminal 10 (+), 11 (-)

Type	Voltage [Uo]	Current [Io]	Power [Po]
9143/10-065-150-0	6.5 V	150 mA	975 mW
9143/10-065-200-0	6.5 V	200 mA	1300 mW
9143/10-099-220-0	9.9 V	220 mA	2178 mW
9143/10-104-220-0	10.4 V	220 mA	2288 mW
9143/10-114-200-0	11.4 V	200 mA	2280 mW
9143/10-124-150-0	12.4 V	150 mA	1860 mW
9143/10-124-195-0	12.4 V	195 mA	2418 mW
9143/10-126-150-0	12.6 V	150 mA	1890 mW
9143/10-156-065-0	15.6 V	65 mA	1014 mW
9143/10-156-150-0	15.6 V	150 mA	2340 mW
9143/10-156-160-0	15.6 V	160 mA	2496 mW
9143/10-187-050-0	18.7 V	50 mA	935 mW
9143/10-187-100-0	18.7 V	100 mA	1870 mW
9143/10-244-035-0	24.4 V	35 mA	854 mW
9143/10-244-055-0	24.4 V	55 mA	1342 mW
9143/10-244-060-0	24.4 V	60 mA	1464 mW

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**Annex**

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The maximum permitted external capacitances and inductances for Gas groups IIC, IIB and I for the different types are shown in the tables below:

- a) max. external capacitance (Lo = 0)      Co  
    max. external inductance (Co = 0)      Lo  
    values according to the following table:

Type	IIC		IIB		I	
	Lo [mH]	Co [ $\mu$ F]	Lo [mH]	Co [ $\mu$ F]	Lo [mH]	Co [ $\mu$ F]
9143/10-065-150-*0	1.43	25	6.25	570	20	1000
9143/10-065-200-*0	0.82	25	3.71	570	11	1000
9143/10-099-220-*0	0.3	3	1.7	20.2	9	190
9143/10-104-220-*0	0.24	2.4	1.5	16.8	9	110
9143/10-114-200-*0	0.16	1.64	1.4	11.2	11	52
9143/10-124-150-*0	0.17	1.24	2.08	7.9	20	34
9143/10-124-195-*0	0.066	1.24	1.01	7.9	12	34
9143/10-126-150-*0	0.141	1.15	1.95	7.4	20	32
9143/10-156-065-*0	0.445	0.497	11.2	3.03	100	16.3
9143/10-156-150-*0			0.482	3.03	20	16.3
9143/10-156-160-*0			0.351	3.03	18	16.3
9143/10-187-050-*0	0.06	0.270	15.5	1.64	180	9.2
9143/10-187-100-*0			0.521	1.64	46	9.2
9143/10-244-035-*0			26.3	0.88	300	5.1
9143/10-244-055-*0			1.54	0.88	150	5.1
9143/10-244-060-*0			0.534	0.88	120	5.1

- b) if capacitances and inductances are concentrated the following values apply:

Type	IIC		IIB		I	
	Lo [mH] at Co [nF]		Lo [mH] at Co [nF]		Lo [mH] at Co [ $\mu$ F]	
9143/10-065-150-*0	1	780	1	9000	1	17
9143/10-065-200-*0	0.5	1100	1	7700	1	15
9143/10-099-220-*0	0.1	1200	1	3400	1	6.8
9143/10-104-220-*0	0.1	1400	1	3100	0.5	8.7
9143/10-114-200-*0	0.1	1200	1	2900	0.5	7.6
9143/10-124-150-*0	0.1	1100	1	2900	0.5	7
9143/10-124-195-*0	0.05	1240	1	2500	0.2	9.4
9143/10-126-150-*0	0.1	1100	1	2800	0.5	6.9
9143/10-156-065-*0	0.1	340	1	2500	1	4.4
9143/10-156-150-*0			0.2	1900	0.2	5.1
9143/10-156-160-*0			0.2	1800	0.2	5.1
9143/10-187-050-*0	0.05	270	1	990	2	2.3
9143/10-187-100-*0			0.5	740	0.2	2.1
9143/10-244-035-*0			0.2	700	0.5	0.98
9143/10-244-055-*0			0.2	670	0.2	1.2
9143/10-244-060-*0			0.2	670	0.2	1.2

**Ambient temperature range Ta**  
for vertical mounting  
for horizontal mounting

-20 °C up to +70 °C  
-20 °C up to +60 °C