



# 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.: IECEx TUR 18.0038X

Issue No: 0

Certificate history:

Issue No. 0 (2018-10-13)

Status: **Current**

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Date of Issue: **2018-10-13**

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

Equipment: **USB RS485 Converter Type 9787/15-11-11**  
*Optional accessory:*

Type of Protection: **Ex ec**

Marking:  
Ex ec IIC T4 Gc

*Approved for issue on behalf of the IECEx  
Certification Body:*

Dipl.-Ing. Klauspeter Graffi

*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:

**TUV Rheinland Industrie Service GmbH**  
Am Grauen Stein  
51105 Cologne  
Germany





# IECEX Certificate of Conformity

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

Additional 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 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:

**IEC 60079-0 : 2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0  
**IEC 60079-7 : 2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

*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/TUR/ExTR18.0038/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/14](#)



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## Schedule

### EQUIPMENT:

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

USB RS485 Converter, Type 9787/15-11-11

For details, see attachment

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

1. The USB RS485 Converter shall be installed in an area providing at least pollution degree 2, as defined in IEC/EN 60664-1.
2. For installations in Zone 2, the USB RS485 Converter shall be installed in a housing of at least IP54. The USB RS485 Converter shall be mounted in a protective housing or cabinet according to IEC/EN 60079-0 which provides an appropriate type of protection.
3. An external transient protection shall limit the transients up to a maximum of 140 % of the peak voltage.
4. USB plug shall be secured (e.g.with a cable tie).

### Annex:

[IECEX\\_TUR\\_18.0038X\\_Attachment.pdf](#)



**Device:** USB RS485 Converter  
**Type:** Type 9787/15-11-11

**Manufacturer:** R. STAHL Schaltgeräte GmbH

**Address:** Am Bahnhof 30,  
D-74638 Waldenburg, Germany

**Subject and type**  
USB RS485 Converter, Type 9787/15-11-11

**General product information**

The USB RS485 Converter is an accessory for the Remote I/O System "IS1+". Since the CPU 9442/35-10-00 does not contain RS485 interface for service bus, the USB RS485 Converter serves to convert USB data from the CPU into serial RS485 data for servicing. Other applications are also possible for the USB RS485 Converter: RS485 interfaces are in wide use for service purposes, but only few data processing systems have RS485 interfaces. Wherever a RS485 interface is missing, the USB RS485 Converter can compensate this absence.

The USB RS485 Converter is intended for use in Zone 2 or outside explosive atmospheres. The special conditions for safe use shall be considered.

**Type designation**

USB Converter	9787 /	1	5	-	1	1	-	1	1
		a	b		c	d		e	f
Hardware-Version:	1	1							
Hazardous area:	Zone 2 / category 3	5							
Number of USB ports	1 port	1							
Number of other ports	1 port	1							
Design of USB ports	Standard (Type B)	1							
Design of other ports	RS485	1							

Electrical data:

Nominal input voltage (USB): 5 V DC ± 10 % (4.5 - 5.5 V DC)

Nominal output voltage (RS485): 5 V DC

Environmental data:

T<sub>a</sub> = - 40°C ... + 75°C