



# 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: 2019-07-30

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

Equipment: **Temperature transmitter type 9282/11-51-16 and 9282/12-51-16**

Optional accessory:

Type of Protection: **intrinsic safety "i" in combination with increased safety "e"**

Marking: [Ex ia Ma] I  
[Ex ia Da] IIIC  
Ex ec ic [ia Ga] IIC T4 Gc

Approved for issue on behalf of the IECEx  
Certification Body:

**Dipl.-Ing. Alexander Henker**

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 [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**IBExU Institut für Sicherheitstechnik GmbH**  
Certification Body  
Fuchsmühlenweg 7  
09599 Freiberg  
Germany





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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 60079-7:2017** 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/IBE/ExTR19.0021/00](#)

Quality Assessment Report:

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



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The modules type 9282/11-51-16 and 9282/12-51-16 are isolating temperature transmitter with intrinsically safe inputs for the use with standard 4...20 mA output signal. The temperature transmitter are intended for mounting on 35 mm DIN rails.

Configuration may be done by means of an USB connection which fulfils the requirements of "ic" circuit.

The temperature signal may be provided either by means of resistance elements or thermocouple elements.

## Technical Data:

ambient temperature range	$T_{amb}$	-40 °C...+70 °C
rated insulation voltage		375 $V_{peak}$
<b>Terminal 5, 6</b>		
maximum voltage	$U_m$	253 V AC / 125 V DC
nominal voltage	$U_n$	24 V DC
<b>Terminal 1, 2</b>		
as associated apparatus	$U_m$	253 V AC / 125 V DC
in Zone 2 / EPL Gc	$U_m$	30 V
<b>Terminal 10, 11, 12, 13</b>		
		intrinsically safe circuit ia IIC
maximum output voltage	$U_o$	6 V
maximum output current	$I_o$	16.8 mA
maximum output power	$P_o$	maximum 25.2 mW (linear)
maximum external capacitance	$C_o$	40 $\mu F$
maximum external inductance	$L_o$	100 mH
effective internal capacitance	$C_i$	44 nF
effective internal inductance	$L_i$	negligible
<b>Terminal <math>\mu</math>USB</b>		
		intrinsically safe circuit ic IIC
maximum output voltage	$U_o$	3.5 V
maximum output current	$I_o$	400 mA
maximum output power	$P_o$	350 mW
maximum external capacitance	$C_o$	2 $\mu F$
maximum external inductance	$L_o$	20 $\mu H$
maximum input voltage	$U_i$	7 V
maximum input current	$I_i$	100 mA
maximum input power	$P_i$	550 mW
effective internal capacitance	$C_i$	47 $\mu F$



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effective internal inductance	$L_i$	negligible
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The values of  $L_o$  and  $C_o$  determined in the certificate shall be reduced to 50 % or taken from the following table if both of the following conditions are met:

- the total  $L_i$  of the external circuit (excluding the cable)  $\geq 1\%$  of the  $L_o$  value and
- the total  $C_i$  of the external circuit (excluding the cable)  $\geq 1\%$  of the  $C_o$  value.

	Ex ia IIC	Ex ia IIB/IIA, Ex ia IIIC
$C_o$	600 nF	1 $\mu$ F
$L_o$	100 mH	100 mH

The reduced capacitance of the external circuit (including cable) shall not be greater than 1  $\mu$ F for Groups I, IIA, and IIB and 600 nF for Group IIC.

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

- The temperature transmitter has to be mounted in a suitable housing fulfilling the requirements of IEC 60079-7 with a degree of protection of at least IP54 according to IEC 60529 or another recognized type of protection according to IEC 60079-0, Clause 1, when installing the device in Zone 2.
- Connecting and disconnecting of non-intrinsically safe circuits are not permitted.