



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 EPS 20.0035X** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-12-16

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

Equipment: **8595 miniCON: Connectors (Plug / Coupling) and Panel Mount (Appliance Inlet / Flange Socket)**

Optional accessory:

Type of Protection: **ia, db, eb, tb**

Marking: Ex db eb IIC T6..T5 Gb
Ex ia IIC T6 Ga
Ex tb IIIC T80 °C..T95 °C Db
Ex ia IIIC T80 °C Da

Approved for issue on behalf of the IECEx
Certification Body:

Ulrich Feike

Position:

Certification Manager

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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
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 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[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/EPS/ExTR20.0037/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/17](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The flameproof encapsulated miniCON, type 8595, connects and disconnects intrinsically and/or non-intrinsically safe circuits and serves as a hot swap connector for power, signal and data lines in zone 0, 1, 2, 20, 21 and 22 hazardous locations with type of protection Flameproof enclosure "db", Increased Safety "eb", Equipment Protection by intrinsic safety "ia" and Protection by Enclosure "tb". miniCON is used as connectors (Plug / Coupling) or as Panel Mount (Appliance Inlet/ Flange Socket). The cables are inserted into the Connectors through any other separately certified cable gland suitable for use in hazardous locations marked on the miniCON. Appliance Inlet & Flange Socket are installed in the walls or covers of Ex "d" or Ex "e" enclosure with protection level "eb", "ia" and "tb". The Connectors (Plug / Coupling) may consist of either a metallic or non-metallic housing, however Appliance Inlet & Flange Sockets for Panel Mount are only available in metallic housing. The reverse version of miniCON is also possible by swapping the male and female contacts in Plugs and Couplings.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Maximum ambient temperature range: $-60 (-30) ^\circ\text{C} \leq T_a \leq +75 ^\circ\text{C}$ depending on temperature class and contacts current configuration. See instruction manual for details.

If the temperature at the entry point is higher than $70 ^\circ\text{C}$, a suitable cable and cable gland must be used.

Unplugged parts must be covered with the protect caps immediately after disconnecting. It must be ensured that the protect caps are in good condition and not contaminated before use.

The flameproof joints are not intended to be repaired.

The flange socket or Appliance Inlet can be used together with certified enclosures thread entries, which comply with IEC 60079-1 clause 13. The test for flame transmission was carried out with a housing volume of up to 260 l. The maximum reference pressure is 20bar. The gap dimensions of the cylindrical gap are according to table 3 of IEC 60079-1 for gas group IIC with a minimum joint length of 25mm and a maximum gap width of 0.15mm. The test was established for an upper ambient temperature of up to $+75 ^\circ\text{C}$.

miniCON must not be used in areas where highly charge-generating processes, machine friction and separation processes, electron spraying (e.g. around electrostatic coating systems) and pneumatically conveyed dust occur.



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Equipment (continued):

Ambient temperature range:	-60 °C to +75 °C -30 °C to +75 °C, optional (silicone-free)
Service temperature range:	-60 °C to +80 °C -30 °C to +80 °C, optional (silicone-free)
Number of poles	1 to 8
Connection type	Crimped or soldered
Termination capacity	Crimp: 0.5 mm ² ...2.5 mm ² (AWG20...AWG14) Soldering: 0.25 mm ² ...1.5 mm ² (AWG24...AWG16)
Crimping size - contact pins / sockets	0.5 mm ² =>
	1.8 mm
	0.75 mm ² / 1 mm ² =>
	2.2 mm
	1.5 mm ² =>
Soldering size – contact pins / sockets	2.8 mm
	2.5 mm ² =>
	3.2 mm
	0.25 mm ² => 1.8 mm
	0.34 mm ² / 0.5 mm ² => 2.2 mm
Rated operational voltage:	0.75 mm ² / 1 mm ² => 2.8 mm
	1.5 mm ² => 3.2 mm
	Ex e version: Max: 550 V ac / 16 A 110 V dc / 8 A 60 V dc / 16 A
Rated operational current:	Max. 16 A (3 phase, symmetrical load)
Rated impulse withstand voltage	4 kV
Rated frequency:	50 ... 60 Hz
Tightening torque (for connection to certified Ex e or Ex d enclosure)	24 Nm