



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 PTB 06.0034** Page 1 of 5 [Certificate history:](#)
Status: **Current** Issue No: 2 [Issue 1 \(2010-11-11\)](#)
[Issue 0 \(2006-04-10\)](#)
Date of Issue: 2012-01-26
Applicant: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany
Equipment: **Plug-and-socket device, type 8581/...-...-**
Optional accessory:
Type of Protection: **Flameproof enclosure "d", Increased Safety "e", Intrinsic Safety "i", Protection by enclosure "tD"**
Marking: Ex de IIC T6 or T5 resp. Ex de [ib] IIC T6 or T5 Ex tD A21 IP66 T80 °C or T95 °C Tamb -45 °C to +40 °C (T6) Tamb -45 °C to +55 °C (T5)

Approved for issue on behalf of the IECEx
Certification Body:

Dr. Ing. Uwe Klausmeyer

Position:

Head of Section "Flameproof Enclosures"

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:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
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 60079-0:2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition:4.0

IEC 60079-1:2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

IEC 60079-11:2006 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:5

IEC 60079-7:2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

IEC 61241-0:2004 Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
Edition:1

IEC 61241-1:2004 Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"
Edition: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/PTB/ExTR10.0078/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/15](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Description of equipment

The plug-and-socket device, Type 8581/...-...-, is used for connection of mobile electrical equipment or for connecting cables in potentially explosive atmospheres. Staggered slots safeguard that only plugs or socket contacts of identical voltage rating can be used together.

Nomenclature

Plug-and-socket device	Type	8581/ab-cde-f
a	type: 1 = standard with 8548; 2 = for North American market with 8548 3 = standard with 8549; 4 = for North America market with 8549	
b	type of construction: 1 = switch socket; 2 = plug	
c	number of poles: 4 = 3P+PE; 5 = 3P+N+PE	
d, e, f	numerals or letters without influence to explosion-protection	

Technical data

		Plug-and-socket device		Auxiliary contact
Rated operating voltage	up to	500 V	690 V	415 V
Rated current I _e	max.	125 A	125 A	6 A
Utilisation category		AC-3	AC-23	AC-3
Rated connection				
Switched socket		120 mm ²		4 mm ²
Switched socket for through connection		95 mm ²		
Switched socket for through connection with cable lug		120 mm ²		
Plug		35 mm ²		
Plug with cable lug		50 mm ²		
<i>Provided the making and breaking capacities are met, rated values other than those specified above are acceptable and will be defined by the manufacturer on the basis of the operating mode, utilisation category, etc.</i>				

Ambient temperature	
Temperature class T6	-45 °C to +40 °C
Temperature class T5	-45 °C to +55 °C

Notes for installation and operation

Auxiliary contacts designed to type of protection Intrinsic Safety "i"

The switch shall be fitted in the enclosure in such a way that the clearance and creepage distances between intrinsically safe and non-intrinsically safe circuits as required in IEC 60079-11 are complied with.



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If system installation and layout does not provide for the clearance requirements for connectors as specified in IEC 60079-11, wiring that meets the quality criterion Increased Safety "e" shall be used, or the wiring shall be mechanically fail -safe according to IEC 60079-11.

Should the above clearance requirements not be met, local wiring measures will be accepted only, if an explosion risk can positively be excluded along all the lines.

When using more than one intrinsically safe circuit, the rules and regulations for interconnection shall duly be observed.

The composition of the protection symbol will be based on the types of protection of components actually used.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
New QAR