



# 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 PTB 16.0029

Issue No: 0

Certificate history:

Issue No. 0 (2017-05-02)

Status: **Current**

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Date of Issue: **2017-05-02**

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

Equipment: **Plug-, Wall Socket- and Coupling Socket-Device type 8573/\*\*-\*\*\*-\***

*Optional accessory:*

Type of Protection: **Flameproof Enclosure "db", Increased Safety "eb" and Protection by Enclosure "tb"**

Marking:

Ex db eb IIC T6 Gb and  
Ex tb III C T70 °C Db

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

Dr.-Ing. Detlev Markus

*Position:*

Head of Department "Explosion Protection in Energy Technology"

*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:

**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 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 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
<b>IEC 60079-7 : 2015</b> Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/PTB/ExTR16.0051/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/10](#)



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## Schedule

### EQUIPMENT:

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

#### Description of equipment

The series 8573 plug- and socket-device are used for connection of mobile electrical equipment or for connecting cables in potentially explosive atmospheres.

The series 8573 wall socket- and coupling socket-device consists of a housing, into which the flange socket of the series 8573 with its own certificate according to IECEx and ATEX is installed.

Technical Data, Nomenclature and Schedule of Limitations see Annex.

#### SPECIFIC CONDITIONS OF USE: NO

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

#### Annex:

[COCA160029-00.pdf](#)



Applicant: R. STAHL Schaltgeräte GmbH  
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Electrical Apparatus: Plug- and Socket-Device 8573/\*\*-\*\*\*-\*

### Description of equipment

The series 8573 plug- and socket-device are used for connection of mobile electrical equipment or for connecting cables in potentially explosive atmospheres.

The series 8573 plug- and socket-device consists of a housing, into which the flange socket of the series 8573 with its own certificate according to IECEx and ATEX is installed.

### Nomenclature

8573	/	*	*	-	*	**	-	*
a	/	b	c	-	d	e	-	f

- a) Type series
- b) Version:
  - 1 = Standard
  - 2 = North America
- c) Desing:
  - 2 = Plug
  - 3 = Wall socket
  - 4 = Coupler
- d) Number of Poles:
  - 2 = 2 poles (L / +)
  - 3 = 3 poles (L1, L2, L3)
- e) Code for pin orientation and voltage:
  - 00 = 20 – 25 V, 50 / 60 Hz, violet
  - 02 = 20 – 25 V and 40 – 50 V, 300 Hz, green
  - 03 = 20 – 25 V and 40 – 50 V, 400 Hz, green
  - 04 = 20 – 25 V and 40 – 50 V, >100 – 200 Hz, green
  - 10 = 20 – 25 V DC, violet
  - 11 = 20 – 25 V and 40 – 50 V, >400 – 500 Hz, green
  - 12 = 40 – 50 V, 50 / 60 Hz, light-grey
- f) Content of Silicon:
  - B = Silicon free

### Ambient temperature

$-40\text{ °C} \leq T_{\text{amb}} \leq +40\text{ °C} \dots +60\text{ °C}$  (with sealing ring made of D0122-01)

$-50\text{ °C} \leq T_{\text{amb}} \leq +40\text{ °C} \dots +60\text{ °C}$  (with sealing ring made of D0123-01)

Type	T <sub>amb</sub> , at rated current and conductor cross section for T6 / T70 °C		
		16 A (4 mm <sup>2</sup> ) 16 A (2.5 mm <sup>2</sup> ) 10 A (1.5 mm <sup>2</sup> ) 8 A (1 mm <sup>2</sup> ) 6 A (0.75 mm <sup>2</sup> )	12 A (4 mm <sup>2</sup> ) 12 A (2.5 mm <sup>2</sup> ) 7 A (1.5 mm <sup>2</sup> ) 6 A (1 mm <sup>2</sup> ) 4 A (0.75 mm <sup>2</sup> )
8573/12	+40 °C	+55 °C	+60 °C
8573/13	+40 °C	+55 °C	+60 °C
8573/14	+40 °C	+55 °C	+60 °C

### Service temperature

$-50\text{ °C} \leq T_{\text{s}} \leq +80\text{ °C}$

### Ingress protection according to IEC 60529

When mounted and cover closed or plug inserted: IP64

Cover must be closed thoroughly when plug is not inserted to maintain environmental protection.



### Electrical Data

Rated operational voltage:	50 V AC or DC
Rated operational current:	max. 16 A
Utilization category:	A AC-3, 50 V, 16 A
Rated frequency:	50...60 Hz; up to 500 Hz
Rated isolation voltage:	275 V
Rated impulse withstand voltage:	2.5 kV
Rated short-time withstand current:	10 kA
Terminal capacity:	0.75...4 mm <sup>2</sup> : 1 or 2 rigid or flexible wires
PE conductor size:	Same or larger than line / load cross section
PA conductor size:	4 mm <sup>2</sup>
Tightening torque:	Terminals: 1.2 Nm Terminals compartment cover: 1.8 Nm Cable gland screw: 0.5...1.0 Nm Cable strain relief: 1.5...1.8 Nm
Clamping range of cable gland:	7 up to 17 mm
Cable entries:	8 up to 15 mm
Coupling and plug cable diameter:	Ring 1 + 2 + 3 + 4: 8 up to 11 mm Ring 2 + 3 + 4: 11 up to 15 mm
Cable gland and stopping plug at wall socket:	M25 x 1.5

Note: Flexible wires are suitable with or without wire end ferrules.



### **Notes for installation and operation**

1. Components attached or installed (bushings, cable entry fittings, connectors, blanking plugs, PE bushings) have to be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions, and have a separate examination certificate. The special conditions specified for the components must be complied with and may have to be included in the type test. This also applies to components already specified in the technical description.
2. Only the number and dimensions of the openings, bushings, cable entry fittings, connectors and blanking plugs that are specified in the technical drawings and technical documents of the manufacturer are allowed to be installed.
3. The plug- and socket-device of type 8573 must be connected with suitable cable glands or conduit systems that complies with the requirements of the specified on the cover sheet, and for which a separate test certificate has been issued.
4. Cable glands (Pg type glands) and blanking plugs of a simple design must not be used. If the plug- and socket-device of type 8573 is connected by means of a conduit entry fitting which has been approved for this purpose, the required sealing device shall be provided immediately at the enclosure.
5. If cable glands or other components made of metal are installed into the terminal compartment (bushings, cable entry fittings, connectors, blanking plugs, PE bushings), they have to have a separate certificate that complies with the requirements specified on the cover sheet and they must be earthed according to the section 15 of the standard IEC 60079-0:2011.
6. The tensile test was performed with cable of different sizes according to the manufacturer. The approved cable sizes that can be used for the plug and coupler are listed in the certification manual of the manufacturer.
7. Openings that are not used must be closed in compliance with the specifications of the standards listed on the cover sheet.
8. The clearance holes for plain entries shall have a diameter not more than 0.7 mm greater than the nominal diameter of the entry thread gland or fitting. The inside of the enclosure shall be provided with sufficient room to attach a locknut to the gland of fitting.
9. The connecting cable of the wall socket-device of type 8573/13 shall be fixed and routed so that it will be adequately protected against mechanical damage.
10. If the temperature at the input parts exceeds 70 °C, temperature-resistant connecting cables shall be used.

This information must accompany each device in an adequate form.

### **Schedule of Limitations**

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