



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 19.0019X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-02-05

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

Equipment: **Plug type 8570/**.***.***

Optional accessory:

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

Marking: Ex eb IIC T6 ... T5 Gb
Ex tb IIIC T75 °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 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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/ExTR19.0013/00](#)

Quality Assessment Report:

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



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The series 8570/**-***-* plugs are used for connection of portable and fixed electrical equipment as well as cables and circuits in potentially explosive atmospheres.

A staggered connector pin assignment safeguards that only plugs or socket contacts of identical voltage rating can be used together. The series 8570/**-***-* plugs are operated with flange sockets of the series 8570, which have its own certificate according to IECEx and ATEX.

For more technical information please see annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The plug 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.

The user shall be informed of the following conditions in an appropriate form, e.g. with a note included in the operating instructions:

“WARNING - THE PLUG SHALL BE FREE FROM WATER AND DUST BEFORE IS INSERTED TO THE SOCKET”

“WARNING – DO NOT OPEN WHEN ENERGIZED”

“WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS”

“WARNING – THE PLUG SHALL BE FIRMLY MOUNTED AT THE SOCKET IN ORDER TO ENSURE THE INGRESS PROTECTION IP”

“WARNING – TEMPERATURE AT THE ENTRY POINTS HIGHER THAN +70 °C. A PROPER SELECTION OF CABLE AND CABLE GLANDS OR CONDUCTORS IN CONDUIT IS REQUIRED”

The user shall be informed of these conditions in an appropriate form, e.g. with a note included in the operating instructions.

Annex:

[COCA190019X-00.pdf](#)



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

Electrical Apparatus: Plug 8570/**-***-*

Description

The series 8570/**-***-* plugs are used for connection of portable and fixed electrical equipment as well as cables and circuits in potentially explosive atmospheres.

A staggered connector pin assignment safeguards that only plugs or socket contacts of identical voltage rating can be used together. The series 8570/**-***-* plugs are operated with flange sockets of the series 8570, which have its own certificate according to IECEx and ATEX.

Nomenclature

8570	/	*	*	-	*	**	-	*
a	/	b	c	-	d	e	-	f

a Type series

b Design:

- 1 Standard (16 A / 20 A)
- 2 North America (20 A)

c Device:

- 2 Plug

d Poles:

- 3 2P + PE or 1P + N + PE
- 4 3P + PE
- 5 3P + N + PE

e Position for earth contact and voltage / frequency / colour

f Sealing material:

- B silicone free
- S containing silicone



Ambient temperature

For Plug type 8570/*2-***-* with sealing ring made of D0122-01:
 $-40\text{ °C} \leq T_{\text{amb}} \leq +35\text{ °C} \dots 65\text{ °C} / T_6 \dots T_5$ by current range 6 A ... 16 A (20 A)

For Plug type 8570/*2-***-* with sealing ring made of D0123-01:
 $-50\text{ °C} \leq T_{\text{amb}} \leq +35\text{ °C} \dots 65\text{ °C} / T_6 \dots T_5$ by current range 6 A ... 16 A (20 A)

Service temperature

For Plug type 8570/*2-***-* with sealing ring made of D0122-01:
 $-40\text{ °C} \leq T_s \leq +75\text{ °C}$ (for the enclosure and cable gland)
 $-40\text{ °C} \leq T_s \leq +95\text{ °C}$ (for terminals)

For Plug type 8570/*2-***-* with sealing ring made of D0123-01:
 $-50\text{ °C} \leq T_s \leq +75\text{ °C}$ (for the enclosure and cable gland)
 $-50\text{ °C} \leq T_s \leq +95\text{ °C}$ (for terminals)

Electrical Data

	Main contacts	
	3 poles	4, 5 poles
Max. rated operational voltage	500 V AC / 110 V DC	690 V AC / 110 V DC
Max. rated insulation voltage	550 V AC	750 V AC
Max. rated operational current	16 A / 20 A	
Rated frequency	0 ... 500 Hz	
Short-circuit protection	16 A gG (without thermal protection) 35 A gG (with thermal protection)	
Terminal capacity for plug type 8570/*2-**	1 x 1.5 ... 4 mm ² (16 ... 12 AWG) solid or stranded	
PE conductor size	Max. 4 mm ²	
Tightening torque	Terminals: max. 1.2 Nm Terminal compartment cover: max. 1.0 Nm Cable gland screw: 0.5 Nm Cable strain relief: 1.5 Nm	
Clamping range of cable gland	8 up to 18 mm (silicone) 8 up to 15 mm (silicone free)	
Cable entries (of the Plug)	8 up to 18 mm Ring 1 + 2 + 3 + 4: 8 up to 11 mm Ring 2 + 3 + 4: 11 up to 15 mm Ring 3 + 4: 15 up to 18 mm (only silicone)	

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



Notes for installation and operation

1. In order to ensure the ingress protection IP, the bayonet ring of the plug must be screwed up to the stop to the socket.
2. The plug shall be free from water and dust before is inserted to the socket.
3. The connecting cable of the plug type 8570/**-***-* shall be fixed and routed so that it will be adequately protected against mechanical damage.
4. The tensile test according to Annex A of the standard IEC 60079-0:2017 was performed with cable of different sizes according to the manufacturer. The approved cable sizes that can be used for the plug are listed in the electrical data.
5. If the temperature at the input parts exceeds 70 °C, temperature-resistant connecting cables shall be used.
6. Installation of electrical components requires a further assessment by an ExCB.

This information must accompany each device in an adequate form.

Specific Conditions of Use:

The plug 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.

The user shall be informed of the following conditions in an appropriate form, e.g. with a note included in the operating instructions:

“WARNING - THE PLUG SHALL BE FREE FROM WATER AND DUST BEFORE IS INSERTED TO THE SOCKET”

“WARNING – DO NOT OPEN WHEN ENERGIZED”

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