



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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx PTB 20.0004U** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 1 [Issue 0 \(2020-09-29\)](#)
Date of Issue: 2021-11-25
Applicant: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany
Ex Component: Flange socket and maintenance flange socket type 8571/**-***-*

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

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

Marking: Ex db eb IIC Gb for 8571/*5
Ex eb IIC Gb for 8571/*8
Ex tb IIIC 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 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[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/PTB/ExTR20.0003/01](#)

Quality Assessment Report:

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



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Ex Component(s) covered by this certificate is described below:

The series 8571/**-***-* flange socket are used for connection of portable and fixed electrical equipment as well as cables and circuits in potentially explosive atmospheres.

The flange sockets of type 8571/**-***-* are components intended to be attached to enclosures in the type of protection "increased safety" Ex "eb" and "protection by enclosures" Ex "tb".

A staggered connector pin assignment safeguards that only plugs or socket contacts of identical voltage rating can be used together. The series 8571/**-***-* flange sockets are operated with plug of the series 8571, which have its own certificate according to IECEx.

The maintenance flange socket disconnecter type 8571/55-***-* is an explosion-proof electrical equipment certified for use in hazardous areas of Zones 1, 2, 21 and 22. It is used for commissioning portable and permanently installed non-explosion-protected electrical apparatus, or plugs and socket receptacles located within hazardous areas during periods, if no explosive atmosphere is present (e.g. during repair and maintenance work requiring high-temperature approval). At all other times, the repair socket outlet is secured by a padlock to prevent unauthorized use. With the maintenance flange socket it is also possible to use a non Ex certified plug.

For more information see annex.

SCHEDULE OF LIMITATIONS:

The flange socket and maintenance flange socket 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 – DO NOT OPEN WHEN ENERGIZED"

"WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS"

"WARNING – IN ORDER TO ENSURE THE INGRESS PROTECTION IP, THE BAYONET RING OF THE PLUG MUST BE SCREWED UP TO THE STOP TO THE SOCKET AND THE HINGED COVER OF THE SOCKET MUST BE CLOSED AND SCREWED UP TO THE STOP WHEN THE PLUG IS NOT INSERTED. THE COVER OF THE TERMINAL COMPARTMENT MUST BE FASTENED WITH THE APPROPRIATE TORQUE"

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

"WARNING – THE MAINTENANCE FLANGE SOCKET TYPE 8571/55-***-* IS TO BE SECURED FOR SWITCHING WITH THE HELP OF A PADLOCK. SWITCHING ON AND OPERATING THE MAINTENANCE FLANGE SOCKET IS ONLY PERMITTED IF THERE IS NO EX ATMOSPHERE PRESENT."

The use of this component requires a further assessment by an ExCB.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- 1) Standard update to latest standards
- 2) Diameter of Bayonet ring of 5-pole variant has changed
- 3) Flap cover of 5-pole variant has got a centering

Annex:

[COCA200004U-01_1.pdf](#)



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

Electrical Apparatus: Flange socket and maintenance flange socket type 8571/**-***-*

Description

The series 8571/**-***-* flange socket are used for connection of portable and fixed electrical equipment as well as cables and circuits in potentially explosive atmospheres.

The flange sockets of type 8571/**-***-* are components intended to be attached to enclosures in the type of protection “increased safety” Ex “eb” and “protection by enclosures” Ex “tb”.

A staggered connector pin assignment safeguards that only plugs or socket contacts of identical voltage rating can be used together. The series 8571/**-***-* flange sockets are operated with plug of the series 8571, which have its own certificate according to IECEx.

The maintenance flange socket disconnecter type 8571/55-***-* is an explosion-proof electrical equipment certified for use in hazardous areas of Zones 1, 2, 21 and 22. It is used for commissioning portable and permanently installed non-explosion-protected electrical apparatus, or plugs and socket receptacles located within hazardous areas during periods, if no explosive atmosphere is present (e.g. during repair and maintenance work requiring high-temperature approval). At all other times, the repair socket outlet is secured by a padlock to prevent unauthorized use. With the maintenance flange socket it is also possible to use a non Ex certified plug.

Nomenclature

8571	*	*	*	-	*	**	-	*	(-*)
a	b	c	d	-	e	f	-	g	h

a Type series

b Version

/ Complete device packed
A Assembly internal

c Design:

1 Standard
2 North America
5 Maintenance Socket

d Device:

5 Flange socket-enclosure
8 Flange socket-cover

e Poles:

4 3P + PE
5 3P + N + PE

f Position for earth contact and voltage / frequency / colour



g Sealing material:

- B silicone free
- S containing silicone

h Sign (- *) can contain 0-xx characters, including the separators "-", "/" or ". ". Additional parameters that do not affect the explosion protection of the equipment

Ambient temperature

For flange socket and maintenance flange socket type 8571/*5-***-*:
 $-50\text{ °C} \leq T_{\text{amb}} \leq +40\text{ °C} \dots 65\text{ °C} / T_6 \dots T_5$ by current range 16 A ... 32 A

For flange socket type 8571/*8-***-*:
 $-50\text{ °C} \leq T_{\text{amb}} \leq +40\text{ °C} \dots 65\text{ °C} / T_6 \dots T_5$ by current range 16 A ... 32 A

Service temperature

For flange socket and maintenance flange socket type 8571/*5-***-*:
 $-50\text{ °C} \leq T_s \leq +75\text{ °C}$ (for the enclosure)
 $-50\text{ °C} \leq T_s \leq +95\text{ °C}$ (for the switch insert)

For flange socket type 8571/*8-***-*:
 $-50\text{ °C} \leq T_s \leq +75\text{ °C}$ (for the enclosure)
 $-50\text{ °C} \leq T_s \leq +95\text{ °C}$ (for the contact sleeve carrier)

Ingress protection according to IEC 60079-0, IEC 60079-7 and IEC 60079-31

When mounted and cover closed or plug inserted: IP64
 Cover must be closed carefully when plug is not inserted to maintain ingress protection. The plug shall be free from water and dust before is inserted to the flange socket.

Electrical Data

Type 8571/*5:

	Main contacts	Auxiliary contacts
	4, 5pole	
Rated operational voltage	690 V AC / 110 V DC	500 V AC / 110 V DC
Rated insulation voltage	750 V AC	550 V AC
Rated operational current	32 A	6 A
Switching capacity	AC-3, 690 V, 32 A 7.5 kW, 220 ... 240 V 15 kW, 380 ... 415 V 30 kW, 600 ... 690 V DC-1, 110 V, 32 A	AC-15, 500 V, 1250 VA AC-15, 230 V, 1380 VA AC-12, 500 V, 3000 VA DC-13, 110 V, 110 W
Rated frequency	0 ... 500 Hz	
Short-circuit protection	35A gG	
Terminal capacity for flange socket type 8571/*5-**	1 or 2 x 2.5 ... 10 mm ² (14 ... 8 AWG) solid 1 or 2 x 2.5 ... 6 mm ² (14 ... 10 AWG) stranded	



	Main contacts	Auxiliary contacts
	4, 5pole	
Terminal capacity for auxiliary contacts	1 or 2 x 0.5 ... 2.5 mm ² (20 ... 14 AWG) solid or stranded	
PE conductor size	Same or larger than line / load cross section	
Tightening torque	Terminals: 1.6 Nm, 2 Nm for 2 x 10 mm ² Fixing screws of the flange socket: 2.3 Nm	

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

Type 8571/*8:

	Main contacts
	4, 5pole
Rated operational voltage	690 V AC / 110 V DC
Rated insulation voltage	750 V AC
Rated operational current	32 A
Rated frequency	0 ... 500 Hz
Short-circuit protection	35A gG
Terminal capacity for flange socket type 8571/*8-**	4 mm ² (12 AWG) stranded and 6 mm ² (10 AWG) stranded
PE conductor size	Same or larger than line / load cross section
Tightening torque	Terminals: 1.6 Nm Fixing screws of the flange socket: 2.3 Nm

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

Mounting

The flange sockets and maintenance flange socket of type 8571/**-***-* are intended to be attached to enclosures in the type of protection "increased safety" Ex "eb" and "protection by enclosures" Ex "tb" with a wall thickness no less than 1.5 mm for metal enclosures and not less than 2.6 mm for non-metal enclosures.

Notes for installation and operation

1. The flange socket and maintenance flange socket of type 8571/**-***-* shall be mounted on an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0, section 1. The degree of protection IP will only be safeguarded if the flange socket is properly installed. The enclosure must be suited for the operating conditions and have a separate examination certificate.
2. In order to ensure the ingress protection IP, the bayonet ring of the plug must be screwed up to the stop to the socket or the hinged cover of the socket must be closed and screwed up to the stop when the plug is not inserted.
3. The plug shall be free from water and dust before is inserted to the flange socket.



4. When mounting the flange socket or maintenance flange socket type 8571/**-***-* in an enclosure of level of protection Increased Safety “eb” in accordance with IEC 60079-7:2015, the clearance and creepage distances specified in section 4.3, section 4.4 and table 2 shall duly be complied with.
5. The connecting cable of the flange socket and maintenance flange socket type 8571/**-***-* shall be fixed and routed so that it will be adequately protected against mechanical damage.
6. If the temperature at the input parts exceeds 70 °C, temperature-resistant connecting cables shall be used.
7. The maintenance flange socket type 8571/55-***-* is to be secured for switching with the help of a padlock. Switching and operating the maintenance flange socket is only permitted if there is no ex atmosphere present.
8. Installation of electrical components requires a further assessment by an ExCB.

This information must accompany each device in an adequate form.

Schedule of Limitations:

The flange socket and maintenance flange socket 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 – DO NOT OPEN WHEN ENERGIZED”

“WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS”

“WARNING – IN ORDER TO ENSURE THE INGRESS PROTECTION IP, THE BAYONET RING OF THE PLUG MUST BE SCREWED UP TO THE STOP TO THE SOCKET AND THE HINGED COVER OF THE SOCKET MUST BE CLOSED AND SCREWED UP TO THE STOP WHEN THE PLUG IS NOT INSERTED. THE COVER OF THE TERMINAL COMPARTMENT MUST BE FASTENED WITH THE APPROPRIATE TORQUE”

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

“WARNING – THE MAINTENANCE FLANGE SOCKET TYPE 8571/55-***-* IS TO BE SECURED FOR SWITCHING WITH THE HELP OF A PADLOCK. SWITCHING ON AND OPERATING THE MAINTENANCE FLANGE SOCKET IS ONLY PERMITTED IF THERE IS NO EX ATMOSPHERE PRESENT.” Commissioning a maintenance flange socket type 8571/55-***-* requires the approval of the plant operator or his authorized agents.

The use of this component requires a further assessment by an ExCB.