



# 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](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.: **IECEX PTB 16.0030U** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2017-05-02)

Status: **Current** Issue No: 1

Date of Issue: 2020-03-05

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

Ex Component: Flange Socket type 8573/15-\*\*\*-\*

*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 and  
Ex tb III 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](http://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 60079-7:2015** 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/ExTR16.0052/01](#)

Quality Assessment Report:

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



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

## **Description of equipment**

The series 8573/15 flange sockets 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 8573/15 are components intended to be attached to Ex "eb" and Ex "tb" enclosures.

A staggered connector pin assignment safeguards that only plugs or socket contacts of identical voltage rating can be used together.

Technical Data, Nomenclature and Schedule of Limitations see Annex.

## **SCHEDULE OF LIMITATIONS:**

"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 – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS"

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



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

- 1) New test according to IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-7:2015 and IEC 60079-31:2013.
- 2) Addition of a 45° adapter for the flange socket.

**Annex:**

[COCA160030U-01.pdf](#)



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

Electrical Apparatus: Flange Socket 8573/15-\*\*\*-\*

### Description of equipment

The series 8573/15 flange sockets are used for connection of portable and fixed electrical equipment as well as cables and circuits in potentially explosive atmospheres.

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### Nomenclature

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

- a) Type series
- b) Version:
  - 1 = Standard
  - 2 = North America
- c) Desing:
  - 5 = Flange Socket
- d) Number of Poles:
  - 2 = 2 poles
  - 3 = 3 poles
- 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

- 50 °C ≤ T<sub>amb</sub> ≤ +40 °C by max. 16 A
- 50 °C ≤ T<sub>amb</sub> ≤ +55 °C by max. 12 A
- 50 °C ≤ T<sub>amb</sub> ≤ +60 °C by max. 10 A

### Service temperature

- 50 °C ≤ T<sub>S</sub> ≤ +80 °C (for enclosure)
- 50 °C ≤ T<sub>B</sub> ≤ +95 °C (for switch insert)

### Electrical Data

Rated operational voltage:	50 V AC or 110 V DC
Rated operational current:	max. 16 A
Utilization category:	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

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

### Maximum rated operating current depends on conductor cross section and ambient temperature

T <sub>amb</sub>	≤ +45 °C	≤ +55 °C	≤ +65 °C
Rated operating current allowed for conductor cross section. Cross section is shown in bracket.	16 A (4 mm <sup>2</sup> )	12 A (4 mm <sup>2</sup> )	10 A (4 mm <sup>2</sup> )
	16 A (2.5 mm <sup>2</sup> )	12 A (2.5 mm <sup>2</sup> )	10 A (2.5 mm <sup>2</sup> )
	10 A (1.5 mm <sup>2</sup> )	7 A (1.5 mm <sup>2</sup> )	6 A (1.5 mm <sup>2</sup> )
	8 A (1 mm <sup>2</sup> )	6 A (1 mm <sup>2</sup> )	5 A (1 mm <sup>2</sup> )
	6 A (0.75 mm <sup>2</sup> )	4 A (0.75 mm <sup>2</sup> )	3 A (0.75 mm <sup>2</sup> )



## **Mounting**

The flange sockets of type 8573/15 are intended to be attached to Ex “eb” and Ex “tb” enclosures with a wall thickness no less than 1.5 mm for metal enclosures or housings and not less than 2.5 mm for non-metal enclosures or housings. Alternatively, a supporting metal frame at the inside of the Enclosure or housing shall be provided with a minimum thickness of 1.5 mm.

## **Notes for installation and operation**

1. The flange sockets of type 8573/15 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 unit is properly installed in the electrical equipment. They must be suited for the operating conditions and have a separate examination certificate.
2. If the flange socket type 8573/15 is attached to an enclosure of level of protection Increased Safety “e” 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.
3. The connecting cable of the flange socket type 8573/15 shall be fixed and routed so that it will be adequately protected against mechanical damage.
4. If the temperature at the input parts exceeds 70 °C, temperature-resistant connecting cables shall be used.
5. Installation of electrical components requires a further assessment by an ExCB.

This information must accompany each device in an adequate form.

## **Schedule of Limitations**

“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 – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS”

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