



# 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 05.0025U**

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Certificate history:

Status: **Current**

Issue No: 3

[Issue 2 \(2017-02-24\)](#)

[Issue 1 \(2013-01-15\)](#)

[Issue 0 \(2005-08-29\)](#)

Date of Issue: 2021-03-15

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

Ex Component: Contact element type 8080/1-\*

*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"**

Marking: Ex db eb IIC Gb

Ex db eb I Mb

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.
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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 60079-7:2017** 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/ExTR12.0093/02](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/16](#)



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

## **Description of equipment**

The contact element type 8080/1-\* is a component designed in type of protection flameproof "db" for installation in switch and control gear. It is used to connect and disconnect load, control and signal circuits. Connection is made at the integrated terminals, which are designed in type of protection increased safety "eb".

Technical data, nomenclature, notes for operation and schedule of limitations see Annex.

## **SCHEDULE OF LIMITATIONS:**

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) New test according to IEC 60079-0:2017 and IEC 60079-7:2017.
- 2) New terminal cover and new enclosure cover. Welding contour stays the same.

### **Annex:**

[COCA050025U-03\\_1.pdf](#)



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

Equipment: Contact Element type 8080/1-\*

### Description:

The contact element type 8080/1-\* is a flameproof encapsulated switching element. It can be used to connect or disconnect load, control and signal circuits in hazardous zones 1 or 2. It is intended to be mounted within an enclosure of protection type "eb" (increased safety). The device consists of the enclosure, the base, the cover, the actuating and the contacting parts. The base and cover are welded to the enclosure by means of ultrasonic welding. This construction forms the flameproof enclosure.

### Nomenclature:

8080	/	1	-	*
a	/	b		c

- a Type series
- b Design
  - 1 –(standard)
- c Contact type
  - 1 – 1 NO / 1 NC
  - 2 – 1 NO / 1 NC, snap-action contact
  - 3 – 2 NC
  - 4 – 2 NO
  - 5 – 1 NO / 1 NC, overlapping

### Service temperature range:

$-60\text{ °C} \leq T_s \leq +100\text{ °C}$

The maximum permitted service temperature of the component is 100 °C and it shall not be exceeded. See section 5.4 of the description 8080 0 07 00 0.



### Electrical Data:

Rated insulating voltage	500 V
Rated operational voltage $U_e$ :	250 V
	AC 15 / 250 V
Utilization category:	AC 12 / 250 V
	DC 12 / 125 V
Rated operational current $I_e$ :	max. 10 A
Conductor cross-section:	0.75 ... 2.5 mm <sup>2</sup> (solid wire, fine-stranded)
Torque of the terminals:	0.4 Nm

Note: Flexible wires are suitable only with wire end ferrules!

### Classification of applicable temperature classes:

The temperature classes are calculated based on the surrounding ambient temperature of the component. The temperature classes depend on operating current, conductor cross section and installation. See section 6.1.1 of the description 8080 0 07 00 0.

### Notes for manufacturing and operation:

1. The contact element type 8080/1-\* shall be mounted in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0, section 1 and has an ingress protection of at least IP54 according to IEC 60079-0 and IEC 60079-7.
2. When installing the contact element type 8080/1-\* in an enclosure designed to Increased Safety "e" type of protection in compliance with IEC 60079-7, the clearance and creepage distances shall be maintained.
3. The connecting cables of the contact element type 8080/1-\* shall be fixed and routed so that it will be adequately protected against mechanical damage.

This information must accompany each device in an adequate form.

### Schedule of Limitations:

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