



# 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 06.0095U issue No.:2  
Status: **Current**  
Date of Issue: **2014-10-16** Page 1 of 4

Certificate history:  
Issue No. 2 (2014-10-16)  
Issue No. 1 (2012-1-27)  
Issue No. 0 (2006-11-13)

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

Electrical Apparatus: **Conduit Hub, type 8166/\*\*-\*\*-\***  
*Optional accessory:*

Type of Protection: **Increased Safety "e", Protection by Enclosures "tb"**

Marking: Ex e IIC Gb and Ex tb IIIC Db

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

Dr.-Ing. D. Markus

*Position:*

Head of Working Group Flame Transmission Processes

*Signature:  
(for printed version)*

*Date:*

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\_\_\_\_\_

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.

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 (Württ.)  
**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 60079-31 : 2008</b> Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
<b>IEC 60079-7 : 2006-07</b> Edition: 4	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/ExTR06.0074/01

#### Quality Assessment Report:

DE/BVS/QAR10.0002/05



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## Schedule

### EQUIPMENT:

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

#### Description of equipment

The conduit hub, type 8166/\*\*-\*\*-\*, is made from metal and is used as an entry for wiring conduits provided with an NPT thread into enclosures of type of protection Increased Safety "e" and Protection by enclosures "tb".

See Annex for more information.

### CONDITIONS OF CERTIFICATION: NO



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

Update to current standards.



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

Electrical Apparatus: Conduit Hub, Type 8166/\*\*-\*\*-\*

### Description

The conduit hub, type 8166/\*\*-\*\*-\*, is made from metal and is used as an entry for wiring conduits provided with an NPT thread into enclosures of type of protection Increased Safety "e" and Protection by enclosures "tb".

### Technical data

Type and size of thread .....NPT 1/2" up to NPT 3"  
Rated ambient temperature range .....-30 °C up to +100 °C  
Ingress protection .....IP 66  
Ground wire connection cross-section (solid, stranded).....2.5 mm<sup>2</sup> up to 10 mm<sup>2</sup>  
.....2 x 2.5 mm<sup>2</sup> up to 2 x 10 mm<sup>2</sup>

### Nomenclature

Nomenclature:

8166	/	*	*	-	*	*	-	*
a		b	c		d	d		e

- a. Type / Series
- b. Version 1
- c. Material 1=Zinc
- d. Size 01= 1/2" NPT  
02= 3/4" NPT  
03= 1" NPT  
04= 1 1/4" NPT  
05= 1 1/2" NPT  
06= 2" NPT  
07= 2 1/2" NPT  
08= 3" NPT
- e. Additional NE = Conduit Hub with Grounding Locknut "Increased Safety"



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### Schedule of Limitations

1. The conduit hub shall be fixed in the enclosure in such a way that rotation and accidental loosening will be prevented.
2. To guarantee the ingress protection, a separate certified blanking plug or a pipe shall be screwed into the conduit hub.
3. If the conduit hub is used as a cable entry, and if the cables are not provided with their own strain relief, flexible sheathed cables and strain relief device shall be used that have passed a tension test in accordance with IEC 60079-0, section A.3.1.4