



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

Certificate No.: **IECEX PTB 06.0090** Issue No.: **0**

Status: **Current**

Date of Issue: **2006-10-24** Page **1** of **3**

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

Electrical Apparatus: **Control and distribution box, type 8146/5...-...**
Optional accessory:

Type of Protection: **Different**

Marking: **Ex dem ia/ib [ia/ib] IIA, IIB or IIC, T6, T5 or T4**
Ex tD A21 IP65 T 80 °C, T 95 °C or T 130 °C

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

Dr.-Ing. Uwe Klausmeyer

Position:

Head of Section "Flameproof Enclosures"

*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 the [Official IECEx Website](http://www.iecex.com).

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

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:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2001 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
IEC 60079-18 : 1992 Edition: 1	Electrical apparatus for explosive gas atmospheres - Part 18: Encapsulation 'm'
IEC 60079-7 : 2001 Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/ExTR06.0106/00](#)

Quality Assessment Report:

[DE/PTB/QAR06.0001/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description of equipment

The control and distribution box, type 8146/5...-... comprises a polyester resin enclosure of type of protection Increased Safety "e" and Protection by Enclosure "tD". It is designed to accommodate control and switch gear as well as measuring instruments and terminals for intrinsically safe and non-intrinsically safe circuits, and it may be provided with actuator elements, pilot lamps and inspection windows as required. The box area intended for intrinsically safe circuits will be marked e.g. by a specific colour (light-blue) or a warning label. Connection will be by means of explosion-proof cable entries. All installed and attached components have been tested and certified under a separate test certificate.

Nomenclature

Control and distribution box	Type	8146/5abc-def
5	Control and distribution box	
a, b	Sizes (Length x Width in mm) 00 = Combination 03 = 112.5 x 112.5 04 = 170 x 112.5 24 = 227 x 112.5 05 = 170 x 170 06 = 227 x 170 07 = 340 x 170 B7 = 340 x 170 S7 = 340 x 170 08 = 340 x 340 09 = 681 x 340	
c	Sizes (Height in mm) 0 = Combination 1 = 91 2 = 131 3 = 150 4 = 171 5 = 190 6 = 230	
d, e, f	numerals or letters without influence to explosion-protection	

Technical data

Rated voltage*	up to	1100 V
Rated current*	max.	630 A
Rated cross section*	max.	240 mm ²
*) depending on type of terminal and explosions-proof components used		
Ambient temperature range	-40 °C to +55 °C	
Protection against contact, entry of solids and water	≥ IP65	
according to IEC 60529		

The ratings specified are maximum values, actual values will be subject to the electrical equipment used from case to case. Depending on the system conditions, the mode of operation, the utilisation category, etc., the manufacturer will define the definitive ratings which will be within the range of these limiting values and will comply with the relevant standards.
The composition of the protection symbol will be based on the types of protection of the components actually used.

Notes for installation and use

Equipment of the type of protection Intrinsic Safety "i" shall be installed in such a way that the clearances and creepage distances between intrinsically safe and non-intrinsically safe circuits as set forth in IEC 60079-14 are duly accounted for.

If the clearance requirements for the connectors as specified in IEC 60079-11 cannot be safeguarded with the system installation and layout, wiring, that meets the quality criteria Increased Safety "e" shall be used, or the wiring shall be of the fail-safe type.

When using more than one intrinsically safe circuit, the rules and regulations for interconnection shall duly be observed.

The actual ambient temperature range will be based on the admissible temperature range of the components used.

CONDITIONS OF CERTIFICATION: NO