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 09.0011U issue No.:1

Certificate history:
Issue No. 1 (2012-1-27)
Issue No. 0 (2009-2-10)

Status: **Current**

Date of Issue: **2012-01-27** Page 1 of 5

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

Electrical Apparatus: **Load and motor switch, type 8544/1.-..**
Optional accessory:

Type of Protection: **Flameproof Enclosures, Increased Safety**

Marking: Ex de IIC Ex de I

Approved for issue on behalf of the IECEx Certification Body: Dr.-Ing. Martin Thedens

Position: Head of Working Group "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.

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

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 : 2007-10 Edition: 5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-7 : 2006-07 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/ExTR09.0013/00

Quality Assessment Report:

DE/BVS/QAR10.0002/02

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Schedule

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

See attached file

CONDITIONS OF CERTIFICATION: NO

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

New QAR

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Additional information:

Description of equipment

The load and motor switch, type 8544/1.-.. is an electrical component in a modular construction, used for connecting and disconnecting electrical circuits in potentially explosive atmospheres.

Technical data

Rated insulation voltage		800 V
Rated operating voltage	Main contacts	up to 690 V
	Aux. contacts	up to 500 V

The switch for the auxiliary contacts is also suitable for the connection of circuits in Intrinsic safety.

Rated limit values

Rated operating voltage up to	500 V	690 V	220 V	220 V	
Rated current up to	80 A	63 A	80 A	80 A	Main contacts
Utilisation category	AC 3	AC 3	DC 1	DC 23	
Rated current up to	6 A	6 A	6A		Auxiliary contacts

Provided the making and breaking capacities are met, rated values other than those specified above are acceptable and will be defined by the manufacturer on the basis of the operating mode, utilisation category, etc.

Rated terminal cross-section

Main contacts	6 mm² up to 10 mm² (AWG 10 up to AWG 8) with insertion profile single-wire and finely stranded 16 mm² up to 50 mm² (AWG 6 up to AWG 1/0) multistranded and finely stranded 2 x 50 mm² with cable lug (AWG 1/0)
Auxiliary contacts	1,5 mm² up to 2,5 mm² (AWG 14) single-wire and finely stranded
Gripping terminal	0,5 mm² up to 10 mm² (AWG 20 up to AWG 8) single-wire and finely stranded
Suited for temperature class	T6 at 80 A, $T_{ambient} \leq 60$ °C T5 at 80 A, $T_{ambient} \leq 75$ °C

Temperature range for usage -50 °C up to +80 °C

Notes for manufacture, installation and operation

The load and motor switch type 8544/1.-.. shall be installed in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0 section 1.

When installing the load and motor switch type 8544/1.-.. is installed into an enclosure designed to type of protection Increased safety “e” as specified in IEC 60079-7, the clearance and creepage distances given in section 4.4, section 4.5 and table 1 shall duly be considered.

When the load and motor switch type 8544/1.-.. is operated with intrinsic safe circuits, an additional warning plate is to be provided: “Only for intrinsic safe circuits!”

Since in this case the requirements of the standard are identical, the component can be used in groups I and II.