



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 07.0011X** issue No.:1

Certificate history:
Issue No. 1 (2012-1-27)
Issue No. 0 (2007-3-9)

Status: **Current**

Date of Issue: **2012-01-27** Page 1 of 4

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

Electrical Apparatus: **Illuminated push button for panel mounting type 8018/3..**
Optional accessory:

Type of Protection: **Flameproof enclosures "d", Encapsulation "m", Intrinsic safety "i", Protection by enclosures "tD"**

Marking: Ex dm IIC T6 resp. Ex dm ia IIC T6 and Ex tD A21 IP65 T 80 °C

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

Dr.-Ing. Ulrich Johannsmeyer

Position:

Department Head "Intrinsic Safety and Safety of Systems"

*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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Page 2 of 4

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 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/ExTR07.0014/00

Quality Assessment Report:

DE/BVS/QAR10.0002/02



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Issue No.: 1

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The illuminated push button for panel mounting, type 8018/3...-.-., is intended for installation in the walls and covers of enclosures for electrical equipment or for control boards or control cabinets. The illuminated push button of type Intrinsic Safety "i" is operated as an intrinsically safe unit when connected to intrinsically safe circuits.

Nomenclature

illuminated push button for panel mounting	Type	8018/abcd-ef-g
a	3 = Design	
b	Variation 1 = standard 2 = intrinsic safety	
c, d, e, f, g	numerals or letters without influence to explosion-protection	

Electrical data

Luminous element		
Rated insulation voltage		550 V
Type		8018/31.
Rated voltage		10.8 V - 270 V AC/DC
Type		8018/32.
Rated voltage		10.8 V - 28 V AC/DC
		Suited for connection to intrinsically safe circuits (Signalling circuit) with the following maximum values: $U_i = 28 \text{ V}$ $I_i = 150 \text{ mA}$ $P_i = 1 \text{ W}$ L_i and C_i are negligibly low
Frequency range		0 to 60 Hz

Pushbutton			
Rated voltage		up to 500 V	
Rated current		up to 6 A	
Rated voltage	Rated current	Breaking capacity	Utilization category
max. 500 V	max. 6 A	max. 3000 VA	AC 12
max. 500 V	max. 6 A	max. 1250 VA	AC 15
max. 110 V	max. 1 A	max. 110 W	DC 13

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.

Contact		NC – NO NC – NC NO – NO	
Rated cross section		0.75 mm ²	
Ambient temperature range		-30 °C to +60 °C	

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The illuminated push button for panel mounting, type 8018/31.., shall be installed in such a way that its rear end is protected against mechanical damage.
2. The illuminated push button for panel mounting, type 8018/32., may be operated as an intrinsically safe unit when

connected to intrinsically safe circuits of category "ia" or "ib".

3. The signalling circuit is electrically isolated from earth.

4. The maximum permissible ambient temperature range is -30 °C to +60 °C.

5. The maximum ambient temperature has to be adjusted as required for the bezel used for the illuminated push button

6. Routine testing for pressure resistance can be dispensed with for the luminous element (flameproof enclosure) of the illuminated push button for panel mounting.



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Page 4 of 4

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

New QAR