



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 07.0002X 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: **Potentiometer for panel mounting type 8455/2-...**
Optional accessory:

Type of Protection: **Flameproof enclosure "d", Encapsulation "m", Protection by enclosure "tD"**

Marking: Ex dm IIC T5 or T6 and Ex tD A21 IP65 T 80 °C or 95 °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](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

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:

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 60079-18 : 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/ExTR07.0013/00](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The potentiometer for panel mounting, type 8455/2-..., is intended for mounting into walls and covers of enclosures for electrical apparatus or for mounting into control boards or control cabinets. It is suitable for use in hazardous areas.

Nomenclature

Potentiometer for panel mounting	Type	8455/a-bcd
a	Variation 2 = Connection cable	
b, c, d	numerals or letters without influence to explosion-protection	

Electrical data

Rated insulation voltage		420 V
Rated voltage	up to	400 V
Rated power	up to	2 W
Ambient temperature range		-20 °C to +55 °C (T5) -20 °C to +40 °C (T6)

CONDITIONS OF CERTIFICATION: YES as shown below:

1. A fuse corresponding to the potentiometer's rated current (max. $3xI_B$ according to IEC 60127-2-1) or motor protection switch with short-circuit and thermal instantaneous tripping (adjusted to rated current) shall be connected in series to each potentiometer as short-circuit protection. For very low rated potentiometer currents a fuse with the lowest current value according to the mentioned IEC-standard will be sufficient. The fuse may be installed in the associated supply unit or it has to be connected in series separately. The fuse's rated voltage shall be the same as or higher than the rated voltage specified for the potentiometer. The breaking capacity of the fuse link shall be the same as or higher than the prospective maximum short-circuit current at place of installation (usually 1500 A).
2. The built-in part of the potentiometer has to be mounted in mechanically protected manner.
3. The potentiometer shall be mounted into an enclosure which meets the requirements of an acknowledged type of protection in accordance with IEC 60079-0.
4. When mounting the potentiometer into an enclosure of type of protection Increased Safety "e" according to IEC 60079-7, the creepage and clearance distances shall duly be considered according to section 4.4 (table 2) and section 4.5 (table 1).



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

New QAR