



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 SIR 06.0077X issue No.:1

Status: **Current**

Certificate history:
Issue No. 1 (2007-10-8)
Issue No. 0 (2006-9-27)

Date of Issue: **2007-10-08** Page 1 of 4

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

Electrical Apparatus: **8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** Type Range of Cable Glands**
Optional accessory:

Type of Protection: **Flameproof, Increased Safety and Dust**

Marking: **Ex d IIC/Ex e II/Ex nR II**
Ex d IIC
Ex e II
Ex d I/Ex e I
Ex d I
Ex e I
Ex nR II
Ex tD A21 IP66

Approved for issue on behalf of the IECEx
Certification Body:

D R Stubbings BA MIET

Position:

Certification Manager

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:

SIRA Certification Service
South Hill
Chislehurst
Kent BR7 5EH
United Kingdom

sira
CERTIFICATION



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Manufacturer: **R. STAHL Schaltgeräte GmbH**
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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 : 2003 Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
IEC 60079-15 : 2005-03 Edition: Ed 3	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
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:

[GB/SIR/ExTR06.0086/00](#)
[GB/SIR/ExTR07.0084/00](#)

Quality Assessment Report:

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



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** ranges of cable glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a main body component and an outer seal actuation nut. The front entry component, fitted with an Evoprene Super G621 elastomeric sealing ring and a Nylon 6 skid washer, is intended to screw into an entry point of its associated enclosure. The main body component, fitted with a locking ring, threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable inner sheath. The outer seal actuation nut, fitted with an Evoprene Super G621 elastomeric sealing ring and a Nylon 6 skid washer, threads into the main body component thereby effecting environmental sealing onto the cable outer sheath.

Cable clamping is achieved with the outer seal arrangement.

The type 8163/2-****-SS2KPB-** front entry component being additionally fitted with a metallic continuity diaphragm and skid washer for use with lead sheathed cable.

The 8163/2-****-SS2KTA-** range of cable glands is intended to terminate tape armour cable into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. The devices are identical to the 8163/2-****-SS2K-** range of glands but with the addition of a metallic continuity diaphragm and skid washer. The 8163/2-****-SS2KTA-** glands are marked Ex e II only. See Annexe for full description

CONDITIONS OF CERTIFICATION: YES as shown below:

The 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** cable gland ranges shall only be used where the temperature, at the point of entry, is between -60°C to +130°C.

The 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** cable gland ranges are fitted with one specific size of FLP sealing ring per gland size as supplied.

The 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** cable gland sizes 20s/16 cable entries are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

The 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** ranges of cable gland entry component threads may need additional sealing to maintain the ingress protection rating as applicable to the associated equipment in which it will be attached.



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

Original dated 2006-09-27

Issue 1 dated 2007-10-05

- 1 The brass, mild steel and stainless steel 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** glands can be used for Group I applications.
The introduction of the 8163/2-****-SS2KTA-** range of cable glands for use with tape armour
The introduction of Ex nR II and ExtD coding
The description was clarified to include Ex e II marking for 8163/2-****-SS2KTA-** glands

Annexe to: IECEx SIR 06.0077X Issue 1

Applicant: R.STAHL Schaltgeräte GmbH

Apparatus: 8163/2-**-SS2K-** and 8163/2-****-SS2KPB-** Type
Range of Cable Glands**



Description (continued):

Design options

- The front entry component may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RE**.
- Alternative materials of manufacture:
Brass to BS2874:1986 Grade CuZn39Pb (CW614N)
Mild steel to BS970 Pt1:1991 Grade 220M07Pb
Stainless steel to BS970 Pt1:1991 Grades 316S11, 316S13, 316S31 or 316S33
Aluminium alloy to BS1474:1987 Grade 6082 or BS1490 Grade LM25 TF (Not Group I)
- Alternative entry component thread forms:
Metric ISO 965-1, ISO965-3 medium fit (6g) for external threads
ET(Conduit) BS 31:1940 (1979), Table A
PG DIN 40430:1971
BSPP BS 2779:1973 class A full form for external threads
BSPTBS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISOISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads
NPTANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads
NPSMANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads
- Alternative material of manufacture of the skid washer to be the same as the gland material.

The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland size	Entry thread	Cable inner seal sheath range Ø		Cable outer seal sheath range Ø	
		Min (mm)	Max (mm)	Min. (mm)	Max. (mm)
20s/16	M20 x 1.5	3.2	8.7	3.1	8.7
20s	M20 x 1.5	6.1	11.7	6.1	11.7
20s/20	M20 x 1.5	6.1	11.7	6.5	14.0
20	M20 x 1.5	6.5	14.0	6.5	14.0
20/25	M20 x 1.5	6.5	14.0	11.1	20.0
25	M25 x 1.5	11.1	20.0	11.1	20.0
25/32	M25 x 1.5	11.1	20.0	17.0	26.3
32	M32 x 1.5	17.0	26.3	17.0	26.3
32/40	M32 x 1.5	17.0	26.3	22.0	32.2
40	M40 x 1.5	23.5	32.2	22.0	32.2
40/50s	M40 x 1.5	23.5	32.2	29.5	38.2
50s	M50 x 1.5	31.0	38.2	29.5	38.2
50s/50	M50 x 1.5	31.0	38.2	35.6	44.1
50	M50 x 1.5	35.6	44.1	35.6	44.1
50/63s	M50 x 1.5	35.6	44.1	40.1	50.1
63s	M63 x 1.5	41.5	50.0	40.1	50.1
63s/63	M63 x 1.5	41.5	50.0	47.2	56.0
63	M63 x 1.5	47.2	56.0	47.2	56.0
63/75s	M63 x 1.5	47.2	56.0	52.8	62.0
75s	M75 x 1.5	54.0	62.0	52.8	62.0
75s/75	M75 x 1.5	54.0	62.0	59.1	68.0

Date: 08 October 2007

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Annexe to: IECEx SIR 06.0077X Issue 1

Applicant: R.STAHL Schaltgeräte GmbH

Apparatus: 8163/2-****-SS2K-** and 8163/2-****-SS2KPB-** Type
Range of Cable Glands



Gland size	Entry thread	Cable inner seal sheath range Ø		Cable outer seal sheath range Ø	
		Min (mm)	Max (mm)	Min. (mm)	Max. (mm)
75	M75 x 1.5	61.1	68.0	59.1	68.0
75/90	M75 x1.5	61.1	68.0	66.6	79.4
90	M90 x 2.0	66.6	80.0	66.6	79.4
90/100	M90 x 2.0	66.6	80.0	76.0	91.0
100	M100 x 2.0	76.0	91.0	76.0	91.0
100/115	M100 x 2.0	76.0	91.0	86.0	98.0
115	M115 x 2.0	86.0	98.0	86.0	98.0
115/130	M115 x 2.0	86.0	98.0	97.0	115.0
130	M130 x 2.0	97.0	115.0	97.0	115.0

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