



# 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](http://www.iecex.com)

Certificate No.: IECEx SIR 06.0080X 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-\*\*\*\*-PX\*\*\*\*-\*\* Type Ranges of Compound Filled Barrier Cable Glands**  
*Optional accessory:*

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

Marking: **Ex d IIC/Ex e II /Ex nR II or Ex d IIC, Ex e II or  
Ex tD A21 IP66  
or for PXSS2K range ONLY  
Ex d I/Ex e I or Ex d I or Ex e I**

Approved for issue on behalf of the IECEx  
Certification Body:

D R Stubbings

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**  
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:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2003</b> Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
<b>IEC 60079-15 : 2005-03</b> Edition: Ed 3	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
<b>IEC 60079-7 : 2001</b> Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> 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-\*\*\*\*-PX\*\*\*\*-\*\* type ranges of barrier cable glands consist of a male-threaded front entry component, fitted with a compound tube such that a spigot/combination joint is formed, which is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The compound tube contains Cedesa EP2122 setting compound that effects a flameproof seal around the cable cores passing through it and is retained by a spacer. The front entry component to main body mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armour or braid is effected by a combination of the front entry component assembly and the different optional armour cone and reversible sleeve combinations within the main body being fastened together. An outer seal nut, containing an Evoprene Super G621 elastomeric displacement sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath.

Refer to the attached Annexe for additional information relating to gland sizes

### CONDITIONS OF CERTIFICATION: YES as shown below:

The 8163/2-\*\*\*\*-PX\*\*\*\*-\*\* type cable glands shall only be used where the temperature, at the point of entry, is between -60°C to +100°C.  
The 8163/2-\*\*\*\*-PX\*\*\*\*-\*\* type cable glands used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.  
The 8163/2-\*\*\*\*-PX\*\*\*\*-\*\* type 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 Issue 1

### Dated 2006-09-27

Dated 05 October 2007

- 1 The introduction of an alternative, outer sealing arrangement; the compression nut length and consequently body length are reduced, in addition, the internal, tapered ferrule is replaced by a flat ferrule
- 2 The introduction of Ex nR II and Ex tD marking  
The recognition of alternative armour cone diameters  
The use of the PX range of glands with pliable wire armour

**Annexe to:** IECEx SIR 06.0080X Issue 1  
**Applicant:** R.STAHL Schaltgeräte GmbH  
**Apparatus:** 8163/2-\*\*\*\*-PX\*\*\*\*-\*\* Type  
**Ranges of Compound Filled  
Barrier 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. 25RPX\*\*.
- 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
- The use of alternative armour clamping components specified by the cable gland type designation. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- Alternative material of manufacture of the ferrule to be the same as the gland material.
- The removal of the ATEX outer seal, nut and ferrule, along with the body component manufactured without the external mating thread. The cable gland being suitable for S.W.A armoured cables and is identified within type designation coding.
- The use of the compound tube and spacer along with the manufacture of the front entry component with a female mating thread, to couple to an alternative main body, skid washer, seal and nut. The latter replacing other component parts. This variant being identified within type designation coding.

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

Gland size	Entry thread	Max. no. of cores	Max. Ø over cores	SWA		STA, strip armour, pliable wire armour* & wire braid		PXSS2K outer seal sheath range Ø		PX** outer seal sheath range Ø	
				(mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)
20s/16	M20 x 1.5	34	12.6	0.9	1.00	0	1.0	3.1	8.7	6.1	11.5
20s	M20 x 1.5	34	12.6	0.9	1.25	0	1.0	6.1	11.7	9.5	15.9
20	M20 x 1.5	34	12.6	0.9	1.25	0	1.0	6.5	14.0	12.5	20.9
20L	M20 x 1.5	34	12.6	0.9	1.25	0	1.0	10.0	15.9	N/A	N/A
25s	M25 x 1.5	80	17.5	1.25	1.6	0	1.0	11.1	20.0	14.0	22.0

**Annexe to:** IECEx SIR 06.0080X Issue 1  
**Applicant:** R.STAHL Schaltgeräte GmbH  
**Apparatus:** 8163/2-\*\*\*\*-PX\*\*\*\*-\*\* Type  
Ranges of Compound Filled  
Barrier Cable Glands



Gland size	Entry thread	Max. no. of cores	Max. Ø over cores (mm)	SWA		STA, strip armour, pliable wire armour* & wire braid		PXSS2K outer seal sheath range Ø		PX** outer seal sheath range Ø	
				Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)
25	M25 x 1.5	80	17.5	1.25	1.6	0	1.0	11.1	20.0	18.2	26.2
32	M32 x 1.5	115	23.6	1.6	2.0	0	1.0	17.0	26.3	23.7	33.9
32L	M32 x 1.5	115	23.6	1.6	2.0	0	1.0	20.0	27.4	N/A	N/A
40	M40 x 1.5	185	30.0	1.6	2.0	0	1.0	22.0	32.1	27.9	40.4
50s	M50 x 1.5	274	36.6	2.0	2.5	0	1.0	29.5	38.2	35.2	46.7
50	M50 x 1.5	343	41.0	2.0	2.5	0	1.0	35.6	44.1	40.4	53.1
63s	M63 x 1.5	466	47.9	2.0	2.5	0	1.0	40.1	50.1	45.6	59.4
63	M63 x 1.5	585	53.7	2.0	2.5	0	1.0	47.2	56.0	54.6	65.9
75s	M75 x 1.5	727	59.9	2.0	2.5	0	1.0	52.8	62.0	59.0	72.1
75	M75 x 1.5	837	64.3	2.0	2.5	0	1.0	59.1	68.0	66.7	78.5
90	M90 x 2.0	1146	75.3	3.15	3.15	0	1.6	66.6	79.4	76.2	90.4

\* - '2KX' and '2K' variants; see below.

**Type designation code**

