

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) EC Type Examination Certificate

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

PTB 00 ATEX 3119 X

(4) Component: Cable Gland Types 8161/5 and 8161/6

(5) Manufacturer: R. Stahl Schaltgeräte GmbH

(6) Address: Bergstraße 2, D-74653 Künzelsau

(7) The construction of this component and any acceptable variation thereto is specified in the schedule to this type examination certificate.

(8) The Physikalisch Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The results of the test are recorded in the confidential report No. PTB Ex 00-30054.

(9) The Essential Health and Safety Requirements are met by compliance with

EN 50 014:1997

EN 50 019:1994

(10) If the sign "X" is placed after the certificate number, it indicates special conditions for safe use of the component specified in the schedule to this certificate.

(11) This EC Type Examination Certificate relates only to the design and construction of the specified component in accordance with Directive 94/9/EC. Further requirements of this directive apply to the manufacture and supply of this equipment.

(12) The marking of the component shall include the following:

 **II 2 G EEx e II**

Zertifizierungsstelle Explosionsschutz

by order

PTB

(signature)

Dr.-Ing. U. Engel

Regierungsdirektor

Braunschweig, 28 June 2000

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

S c h e d u l e

(13)

(14) **EC-Type Examination Certificate PTB 00 ATEX 3119 X**

(15) Description of the component

The cable gland Type 8161/., made of polyamide, is used for the entry of fixed wiring in electrical equipment with the type of protection Increased Safety "e". The cable gland consists of a gland body, gasket and cap nut. A red plug is an accessory. The cable gland is installed into enclosures with through holes or threaded holes, with or without lock nut, made of metal.

The sizes M25 x 1,5 and M32 x 1,5 can be equipped with multi-entry gasket instead of sealing ring. For the sealing towards the enclosure, the sizes from M40 x 1,5 are provided with an extra gasket. Type 8161/6 is a version with "blue cap nut" and is used for the entry of wires with intrinsically safe circuits.

Technical data

Rated size	useable for cables and wires of diameters
M 20 x 1,5	6 up to 13 mm
M 25 x 1,5	10 up to 17 mm
M 25 x 1,5	4 times 3 up to 5,5 mm
M 32 x 1,5	13 up to 21 mm
M 32 x 1,5	4 times 5 up to 7 mm
M 40 x 1,5	17 up to 28 mm
M 50 x 1,5	23 up to 35 mm
M 63 x 1,5	31 up to 48 mm

Temperature range of use: -20 up to +75 °C

Suitable for equipment of equipment group II, with the degree of mechanical hazard: high

Minimum wall thickness for installation into equipment with threaded holes: 5,0 mm (plastic), 3,0 mm (metal)

Minimum wall thickness for installation into equipment with through holes: min. 2,0 mm (plastic), 1,0 mm (metal)

Ingress protection: min. IP 54 to EN 60 529: 1991

(16) Test report PTB Ex 00-30054

(17) Special requirements

Only fixed cables and wires may be entered. The user has to guarantee for the respective strain relief.

The maximum thermal stress of the entered cables and wires is to be taken care of.

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Schedule to EC Type-Examination Certificate PTB 00 ATEX 3119 X

(18) Essential Health and Safety Requirements

The ingress protection - minimum IP 54 to EN 60529:1991 - is met only when the suitable cable glands of the tested gaskets are selected, and the installation into the electrical apparatus is carried out duly.

Zertifizierungsstelle Explosionsschutz
by order
(signature)
Dr.-Ing. U. Engel
Regierungsdirektor

Braunschweig, 28 June 2000

1st SUPPLEMENT
according to Directive 94/9/EC Annex III.6
to CONFORMITY STATEMENT PTB 00 ATEX 3119 X
(Translation)

Equipment: Cable entry of types 8161/5 and 8161/6

Marking:  II 2 G EEx e II

Manufacturer: R. Stahl Schaltgeräte GmbH

Address: Bergstraße 2
D-74653 Künzelsau

Description of supplements and modifications

The size M25 x 1.5 cable entries of types 8161/5 and 8161/6 may be provided with an additional sealing ring, which will be fitted into the large sealing ring in order to reduce the cable clamping area (7...12 mm).

The plug for optional cable entries or cable entries not used may in addition be made from alternative material.

The special conditions are also valid for this first supplement.

Technical data

Nominal size	for cable diameter
M 25 x 1.5	10 mm to 17 mm (without additional sealing ring) 7 mm to 12 mm (with additional sealing ring)

Test report: PTB Ex 01-11012

Zertifizierungsstelle Explosionsschutz

Braunschweig, February 20, 2001

By order:


Dr.-Ing. U. Klausmeyer
Regierungsdirektor



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Conformity Statements without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

2nd SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to CONFORMITY STATEMENT PTB 00 ATEX 3119 X

(Translation)

Equipment: Cable entry of types 8161/5 and 8161/6

Marking:  II 2 G EEx e II

Manufacturer: R. Stahl Schaltgeräte GmbH

Address: Am Bahnhof 30
74638 Waldenburg (Württ.), Germany

Description of supplements and modifications

The cable entries of types 8161/5 and 8161/6 are supplemented by the size M 16 x 1.5 .

Test report: PTB Ex 01-11183

Zertifizierungsstelle Explosionsschutz

Braunschweig, August 22, 2001

By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor



3rd SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 3119 X

(Translation)

Equipment: Cable entry, types 8161/5 and 8161/6

Marking:  II 2 G EEx e II

Manufacturer: R. STAHL Schaltgeräte GmbH

Address: Am Bahnhof 30
74638 Waldenburg (Württ.), Germany

Description of supplements and modifications

The cable entry, types 8161/5 and 8161/6, may also be employed in areas in which a potentially explosive atmosphere as a mixture of dust and air can occasionally form.

The marking is, therefore, changed to read:

 II 2 G EEx e II

 II 2 D IP 66

Applied standards

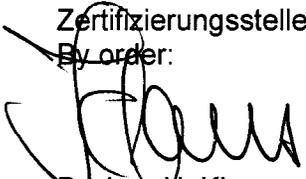
EN 50014:1997 + A1 + A2

EN 50281-1-1:1998

Test report: PTB Ex 05-15146

Zertifizierungsstelle Explosionsschutz

By order:


Dr.-Ing. U. Klausmeyer
Regierungsdirektor



Braunschweig, May 17, 2005

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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

4. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 3119 X

(Translation)

Equipment: Cable entry of types 8161/5 and 8161/6

Marking: II 2 G EEx e II, II 2 D IP66

Manufacturer: R. STAHL Schaltgeräte GmbH

Address: Am Bahnhof 30
74638 Waldenburg (Württ.), Germany

Description of supplements and modifications

The cable entries of types 8161/5 and 8161/6 has been re-evaluated in accordance with the Standards EN 60079-0, EN 60079-7, EN 61241-0 and EN 61241-1

The marking is, therefore, changed to:

II 2 G Ex e II II 2 D IP 66

The ambience temperature range is extended to -40 °C to 75 °C

Alternative materials which are suitable for the temperature range can be used optionally

Instructions for installation and use

The instructions for installation and use apply as before.

Applied standards

EN 60079-0:2004

EN 60079-7:2003

prEN 61241-0:200X
(IEC 61241-0:2004)

EN 61241-1:2004

Test report: PTB Ex 06-16364

Zertifizierungsstelle Explosionschutz

By order:

Dr.-Ing. M. Heddes
Regierungsrat



Braunschweig, November 22, 2006

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