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 13.0047U

Issue No: 3

Certificate history:
Issue No. 3 (2019-06-14)
Issue No. 2 (2017-10-26)
Issue No. 1 (2015-07-13)
Issue No. 0 (2014-01-16)

Status: **Current**

Date of Issue: **2019-06-14**

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

Equipment: **Actuator attachment type 8602*3-***-*-***-***-****
Optional accessory:

Type of Protection: **Increased Safety "eb" and Protection by Enclosure "tb"**

Marking:
Ex eb IIC Gb and

Ex tb IIIC Db

Approved for issue on behalf of the IECEx Certification Body: Dr.-Ing. D. Markus

Position: Head of Department "Explosion Protection in Energy Technology"

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

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

IECEx Certificate of Conformity

Certificate No:	IECEx PTB 13.0047U	Issue No: 3
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Manufacturer:	**R. STAHL Schaltgeräte GmbH** Am Bahnhof 30 74638 Waldenburg **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 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/ExTR13.0066/03

Quality Assessment Report:

DE/BVS/QAR10.0002/14

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Date of Issue: 2019-06-14

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The actuator attachments type 8602*3-***-*-***-***-****, mainly made of polyamide, can be mounted on any enclosure cover and enclosure wall of electrical equipment in the types of protection Increased Safety “eb” and Protection by Enclosure “tb”.

For nomenclature and technical data see annex.

SPECIFIC CONDITIONS OF USE: NO

Coated protective metallic collars must not be used in areas that are affected by high charge producing processes, mechanical friction and separation processes, electron emission (e.g. near electrostatic coating equipment), and pneumatically conveyed dust.

Service temperature range:

-20 °C ≤ T_S ≤ +60 °C (gasket D0114, D0117, D0129 and D0138), and

-60 °C ≤ T_S ≤ +70 °C (gasket D0115, D0116, D0130 and D0131)

The use of this component requires a further assessment by an ExCB.

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

1) New test according to IEC 60079-0:2017, IEC 60079-7:2015 and IEC 60079-31:2013.

2) New actuator attachment type 8602*3-736-*-***-***-**** (rotary actuator, maxi, black-black) and type 8602*3-737-*-***-***-**** (rotary actuator, maxi, red-yellow).

3) D0207 and D0208 as alternative materials to D0023, D0026 and D0159 have been tested and approved.

Annex:

COCA130047U-03.pdf

Applicant: R. STAHL Schaltgeräte GmbH
Am Bahnhof 30
74638 Waldenburg
Germany

Electrical Apparatus: Actuator attachment type 8602*3-***-*-***-***-****

Description:

The actuator attachments type 8602*3-***-*-***-***-****, mainly made of polyamide, can be mounted on any enclosure cover and enclosure wall of electrical equipment in the types of protection Increased Safety “eb” and Protection by Enclosure “tb”.

Nomenclature:

8602	*	3	-	***	-	*	-	***	-	***	-	****
1	2	3	-	4	-	5	-	6	-	7	-	8

1) Product Type / Series
2) Assembly
   / = Complete actuator
   A = Assembly internal
   C = Customer assembly
3) Version
4) Design (see Appendix)
5) Gasket
   B = NBR
   S = Silicon
6) Switching function / lockable position / color filter / potentiometer-actuator scale
7) Switching position
8) Lock cylinder

Technical data:

Mounting on enclosure with wall thicknesses	Metallic enclosures: from 1.5 mm to 5 mm Plastic enclosures: from 2.5 mm to 5 mm
Diameter of the through bore-hole	30.5 mm
Torque of the threaded ring	3 Nm
Maximum permissible service temperature range	-20°C ≤ T_S ≤ +60°C (Seal D0114, D0117, D0129 and D0138) and -60°C ≤ T_S ≤ +70°C (Seal D0115, D0116, D0130 and D0131)

Ingress protection according to IEC 60079				
Type	Designation	Sealing material	Front piece materi-al	Ingress protec-tion according to IEC 60079
8602*3-001-S-***-***-****	Pushbutton	D0131 D0115	D0012	IP66
8602*3-001-S-***-***-****		D0131 D0115	D0010	IP66
8602*3-001-B-***-***-****		D0138 D0114	D0012	IP66
8602*3-001-B-***-***-****		D0117 D0114	D0010	IP66
8602*3-054-S-***-***-****	Indicator lamp bezel	D0115	D0012	IP66
8602*3-054-B-***-***-****		D0114	D0012	IP66
8602*3-728-S-***-***-****	Rotary actuator, large, in-creased height, black-black	D0116 D0115	D0012	IP66
8602*3-728-S-***-***-****		D0116 D0115	D0010	IP66
8602*3-728-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-729-S-***-***-****	Rotary actuator, large, in-creased height, red-yellow	D0116 D0115	D0012	IP66
8602*3-729-S-***-***-****		D0116 D0115	D0010	IP66
8602*3-729-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-730-S-***-***-****	Rotary actuator, large, red-yellow	D0116 D0115	D0012	IP66
8602*3-730-S-***-***-****		D0116 D0115	D0010	IP66
8602*3-730-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-731-S-***-***-****	Rotary actuator, large, black-black	D0116 D0115	D0012	IP66
8602*3-731-S-***-***-****		D0116 D0115	D0010	IP66

8602*3-731-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-735-S-***-***-****	Illuminated push button	D0131 D0115	D0012	IP64
8602*3-735-B-***-***-****		D0138 D0114	D0012	IP66
8602*3-735-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-023-S-***-***-****	Twin push button	D0131 D0115	D0010	IP64
8602*3-023-B-***-***-****		D0138 D0114	D0010	IP66
8602*3-023-B-***-***-****		D0117 D0114	D0010	IP66
8602*3-092-S-***-***-****	Potentiometer attachment	D0116 D0115	D0012	IP66
8602*3-092-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-727-S-***-***-****	Rotary actuator axial, lockable pad, with 2 or 3 switching positions	D0116 D0115	D0010	IP66
8602*3-727-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-727-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-726-S-***-***-****	Rotary actuator axial, unlockable pad, with 2 or 3 switching positions	D0116 D0115	D0010	IP66
8602*3-726-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-726-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-732-S-***-***-****	Rotary actuator small	D0116 D0115	D0010	IP66
8602*3-732-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-732-B-***-***-****		D0117 D0114	D0012	IP64

8602*3-734-S-***-***-****	Rotary actuator small, lock-able	D0116 D0115	D0010	IP66
8602*3-734-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-734-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-736-S-***-***-****	Rotary actuator, maxi, black-black	D0116 D0115	D0010	IP66
8602*3-736-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-736-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-737-S-***-***-****	Rotary actuator, maxi, red-yellow	D0116 D0115	D0010	IP66
8602*3-737-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-737-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-008-S-***-***-****	Key operated switch MS, with 2 or 3 switching posi-tions	D0116 D0115	D0010	IP66
8602*3-008-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-008-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-008-S-***-***-****	Key operated switch KMS, with 2 or 3 switching posi-tions	D0116 D0115	D0010	IP66
8602*3-008-S-***-***-****		D0116 D0115	D0012	IP66
8602*3-008-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-003-S-***-***-****	Mushroom push button, black Ø38	D0131 D0115	D0010	IP64
8602*3-003-S-***-***-****		D0131 D0115	D0012	IP64
8602*3-003-B-***-***-****		D0138 D0114	D0012	IP66

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8602*3-003-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-004-S-***-***-****	Mushroom push button, red Ø38	D0131 D0115	D0010	IP64
8602*3-004-S-***-***-****		D0131 D0115	D0012	IP64
8602*3-004-B-***-***-****		D0138 D0114	D0012	IP66
8602*3-004-B-***-***-****		D0117 D0114	D0012	IP64
8602*3-014-S-***-***-****	Mushroom push button, red Ø55	D0131 D0115	D0010	IP64
8602*3-014-S-***-***-****		D0131 D0115	D0012	IP66
8602*3-014-B-***-***-****		D0138 D0114	D0012	IP66
8602*3-014-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-015-S-***-***-****	Mushroom stay-put button - Emergency Stop, Ø55	D0131 D0115 D0130	D0010	IP66
8602*3-015-S-***-***-****		D0131 D0115 D0130	D0012	IP66
8602*3-015-B-***-***-****		D0138 D0114 D0129	D0012	IP66
8602*3-015-B-***-***-****		D0117 D0114 D0129	D0012	IP66
8602*3-703-S-***-***-****	Mushroom push button, black Ø55	D0131 D0115	D0010	IP64
8602*3-703-S-***-***-****		D0131 D0115	D0012	IP66
8602*3-703-B-***-***-****		D0138 D0114	D0012	IP66

8602*3-703-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-712-S-***-***-****	Mushroom push button, Ø55	D0131 D0115	D0010	IP64
8602*3-712-S-***-***-****		D0131 D0115	D0012	IP66
8602*3-712-B-***-***-****		D0138 D0114	D0012	IP66
8602*3-712-B-***-***-****		D0117 D0114	D0012	IP66
8602*3-010-S-***-***-****	Mushroom stay-put button, emergency stop (red)	D0131 D0115 D0130	D0012	IP66
8602*3-010-S-***-***-****		D0131 D0115 D0130	D0010	IP66
8602*3-010-B-***-***-****		D0138 D0114 D0129	D0012	IP66
8602*3-010-B-***-***-****		D0117 D0114 D0129	D0012	IP66
8602*3-012-S-***-***-****	Mushroom stay-put button, black	D0131 D0115 D0130	D0012	IP66
8602*3-012-S-***-***-****		D0131 D0115 D0130	D0010	IP66
8602*3-012-B-***-***-****		D0138 D0114 D0129	D0012	IP66
8602*3-012-B-***-***-****		D0117 D0114 D0129	D0012	IP66
8602*3-009-S-***-***-****	Mushroom stay-put button with key lock, emergency stop (red)	D0131 D0115 D0130	D0012	IP66

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8602*3-009-S-***-***-****		D0131 D0115 D0130	D0010	IP66
8602*3-009-B-***-***-****		D0138 D0114 D0129	D0012	IP66
8602*3-009-B-***-***-****		D0117 D0114 D0129	D0012	IP66
8602*3-006-S-***-***-****	Mushroom stay-put button with key lock, black	D0131 D0115 D0130	D0012	IP66
8602*3-006-S-***-***-****		D0131 D0115 D0130	D0010	IP66
8602*3-006-B-***-***-****		D0138 D0114 D0129	D0012	IP66
8602*3-006-B-***-***-****		D0117 D0114 D0129	D0012	IP66
8602*3-733-B-***-***-****	Closure part	D0114	D0012	IP66
8602*3-733-S-***-***-****		D0115	D0012	IP66

Notes for installation and operation:

1. The actuator attachment type 8602*3-***-*-***-***-**** shall be installed in an enclosure that meets the requirements of an approved type of protection in accordance with IEC 60079-0, section 1.
2. The degree of protection according to IEC 60079-0:2017, IEC 60079-7:2015 and IEC 60079-31:2013 will only be safeguarded if the component is properly installed in the electrical equipment. Electrical equipment must be suited for the operating conditions and have a separate examination certificate.
3. Each actuator attachment type 8602*3-***-*-***-***-**** shall be placed by the threaded part into the corresponding bore-hole (Ø 30.5 mm) of an enclosure cover or enclosure wall and shall be fixed with a threaded ring and the appropriate torque.
4. For information about the enclosure cover thickness or enclosure wall thickness in mm for the different actuator attachments please see the technical data.
5. The torque of the threaded ring of the actuator attachment must be checked during revision work.

6. The types of protection can be ensured only, if the information and instructions provided by the manufacturer are followed and the items are properly installed in the enclosure, the enclosure cover and/or the electrical equipment.
7. When installing the component in the electrical equipment, measures must be taken to ensure that the temperatures at the place of installation remain within the range of ambient temperatures.
8. The installation of electrical components is subject to re-assessment by a notified body.

This information must accompany each device in an adequate form.

Schedule of Limitations:

Coated protective metallic collars must not be used in areas that are affected by high charge producing processes, mechanical friction and separation processes, electron emission (e.g. near electrostatic coating equipment), and pneumatically conveyed dust.

Service temperature range:
-20 °C ≤ T_S ≤ +60 °C (gasket D0114, D0117, D0129 and D0138), and
-60 °C ≤ T_S ≤ +70 °C (gasket D0115, D0116, D0130 and D0131)

The use of this component requires a further assessment by an ExCB.