IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com
Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx BVS 07.0029U**

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Certificate history:
Issue 2 (2016-01-12)
Issue 1 (2011-07-08)
Issue 0 (2007-11-30)

Status: **Current**

Issue No: 3

Date of Issue: 2023-02-23

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

Ex Component: Control unit type 8510/1**-**-***-***-**

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Flameproof Enclosures "d", Intrinsic Safety "i", Increased Safety "e"**

Marking:

Ex db eb IIC Gb	or	Ex db eb I Mb	or
Ex db eb [ib] IIC Gb	or	Ex db eb [ib] I Mb	or
Ex db eb [ia Ga] IIC Gb	or	Ex db eb [ia Ma] I Mb	

Approved for issue on behalf of the IECEx Certification Body: **Deniz Pezzutto**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

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

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

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 component 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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the component listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/BVS/ExTR07.0035/02

Quality Assessment Report:

DE/BVS/QAR10.0002/17

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Ex Component(s) covered by this certificate is described below:

Type code

See Annex

Description

The control unit is an enclosure that meets the requirements of the type of protection Flameproof Enclosure. It is equipped with electrical and electronic components. This may include devices (Ex components and / or Ex equipment) with intrinsically safe circuits, which have been separately tested and certified. After the components are mounted, the enclosure is closed by a cover which is cemented to the enclosure.

The cover of the enclosure is equipped with several connection facilities. There are two sizes of connection facilities; larger size for the main circuits, and a smaller size for the auxiliary circuits.
These facilities are a combination of feedtroughs and terminals. The terminals meet the requirements of the type of protection Increased Safety.

Optionally the cover is equipped with one or more bushes with operating rods.

The control unit is intended to be mounted inside an enclosure in type of protection Increased safety.

Listing of all components used referring to older standards

None

Parameters

See Annex

SCHEDULE OF LIMITATIONS:

After installation of the control unit into an enclosure in type of protection Increased Safety “e“, the clearances and creepage distances have to meet the requirements of IEC 60079-7.

If the control unit is equipped with separately tested and certified devices with intrinsically safe circuits
(IS-devices), the following applies:

The instructions of the IS-devices have to be followed in addition to the instructions of the control unit.

If the grouping of the IS-device is not IIC, the grouping of the control unit has to be downgraded to the grouping of the IS-device.

If the requirements of the SPECIFIC CONDITIONS FOR USE of the IS device could not be met with the equipment of the Ex component, the requirements must be passed on to the user.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- IEC 60079-0 is updated to edition 7.0
- IEC 60079-7 is updated to edition 5.1
- A TR-annex for IEC 60079-11 is added.
- Modification of the enclosure materials
- Type 8510/121-... and type 8510/142-... are removed from the list of permissible types.

Annex:

BVS_07_0029U_STAHL_Annex_issue_3_.pdf

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Certificate No.: **IECEx BVS 07.0029U issue No: 3**
Annex

Type code

8510	/	1	*	*	-	**	-	***	-	***	-	**
a		b	c	d		e		f		g		h

a Type series

b Generation

c Enclosure size [mm] 1 - 130×48
2 - 130×70
3 - 130×115
4 - 130×80

d Enclosure height [mm] 1 - 110.5
2 - 168

permissible combinations: 11, 12, 22, 31, 32 and 41

e Version: Kind of built-in component

f - h Further information regarding built-in component

Parameters

Limits of the service temperatures
depending on the material -20 °C up to 110 °C
or -20 °C up to 100 °C

Rated voltage up to AC 690 V

Permissible cross sectional area
- for the main contacts type 8510/11*-**-****-**
  finely stranded conductor 0.75 mm² up to 1.5 mm²
  solid conductor 0.75 mm² up to 2.5 mm²
- for the main contacts all other types
  finely stranded conductor 0.75 mm² up to 6 mm²
  solid conductor 0.75 mm² up to 10 mm²
- for the auxiliary contacts
  finely stranded conductor 0.75 mm² up to 1.5 mm²
  solid conductor 0.75 mm² up to 2.5 mm²

Type	max. T_a at Temperature class		
	T6	T5	T4 and group I
8510/111	60 °C	60 °C	60 °C
8510/112	60 °C	60 °C	60 °C
8510/122	50 °C	60 °C	60 °C
8510/131	60 °C	60 °C	60 °C
8510/132	45 °C	60 °C	60 °C
8510/141	60 °C	60 °C	60 °C