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 PTB 17.0022U**

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Certificate history:
Issue 2 (2021-05-06)
Issue 1 (2018-09-10)
Issue 0 (2017-11-20)

Status: **Current**

Issue No: 3

Date of Issue: 2023-02-02

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

Ex Component: Indicating lamp type 8010/6-**-*-*

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 Enclosure "db", Increased Safety "eb" and Intrinsic Safety "ia"**

Marking: Type 8010/6-**-1-*:
Ex db eb IIC Gb or Ex db eb I Mb;

Type 8010/6-**-2-*:
Ex db ia IIC Gb or Ex db ia I Mb

Approved for issue on behalf of the IECEx Certification Body: **Dr. Detlev Markus**

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

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:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

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Certificate No.: **IECEx PTB 17.0022U**

Date of issue: 2023-02-02 Issue No: 3

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

Manufacturing locations:

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/PTB/ExTR17.0020/03

Quality Assessment Report:

DE/BVS/QAR10.0002/18

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

Description

The indicating lamp type 8010/6-**-*-* level of protection Flameproof Enclosure "db", Increased Safety "eb" and Intrinsic Safety "ia" is made out of plastic. It is an electrical device for indicating status of electrical systems or parts of it thereof by visual means. It is intended to be used in explosion areas of zone 1 or 2 and is intended to be mounted into an enclosure type of protection Increased Safety "e". In the encapsulated part are electronics on a plate and LED inside.

For further technical information, notes for installation and operation and schedule of limitations see Annex.

SCHEDULE OF LIMITATIONS:

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) Addition of new material D0018 for the base, cover and enclosure of the indicator light type 8010/6-**-*-*.

Annex:

COCA170022U-03.pdf

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

Equipment: Indicating Lamp type 8010/6-**-*-*

Description:

The indicating lamp type 8010/6-**-*-* level of protection Flameproof Enclosure "db", Increased Safety "eb" and Intrinsic Safety "ia" is made out of plastic. It is an electrical device for indicating status of electrical systems or parts of it thereof by visual means. It is intended to be used in explosion areas of zone 1 or 2 and is intended to be mounted into an enclosure type of protection Increased Safety "e". In the encapsulated part are electronics on a plate and LED inside.

Nomenclature:

8010	/	6	-	*	*	-	*	-	*
a	/	b		c	d		e		f

a) Type series

b) Generation
6 = with welded enclosure

c) Mounting method
1 = Rail mounting
2 = Panel mounting

d) Terminals
1 = Screw terminals

e) Protection level
1 = Ex db eb (12…254 V DC)
2 = Ex db ia (12…24 V DC)
3 = Simple apparatus (8…12 V DC) acc. to IEC 60079-11

f) Construction
D = with distance spacer for 8040 raised (only by mounting rail installation)

Service temperature:

-60 °C ≤ T_S ≤ +100 °C

Electrical Data:

8010/6-**-*-* – General:

Optical source	LED white
Rated operational power consumption	max. 1 W
Terminal capacity stranded	0.32 mm^2 to 2.5 mm^2, 1 or 2 solid wire or fine
Tightening torque	max. 1.2 Nm
Degree of protection enclosure.	The component is to be mounted within an Ex e

8010/6-**-1-* – Ex db eb version:

Rated operational voltage	12 V up to 240 V, AC or DC (±10 %)
Rated operational current	max. 10 mA
Rated operational power consumption	max. 1 W

8010/6-**-2-* – Ex db ia version:

Rated operational voltage	12 V to 24 V DC (±10 %)
Operational voltage limits	10.8 V to 30 V DC
Safety specific values	$U_i \leq 30$ V DC; $I_i \leq 150$ mA; $P_i \leq 1$ W; inductance L_i and capacity C_i negligible

Input circuit in the type of protection Intrinsic Safety Ex ia:

Connections X1, X2	Ex ia IIC Ga

Only for connection to a certified intrinsically safe circuit:

Maximum permitted values	$U_i \leq 30$ V DC $I_i \leq 150$ mA $P_i \leq 1$ W $L_i \approx 0$ $C_i \approx 0$

Note: Flexible wires are suitable only with wire end ferrules!

Notes for installation and operation:

1. The indicator light type 8010/6-**-*-* 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. When installing the indicator light in an enclosure designed to type of protection Increased Safety “e” as specified in IEC 60079-7:2017, the clearance and creepage distances shown in section 4.3, section 4.4, and table 2 shall be duly considered.
3. The connecting cables of the indicator light type 8010/6-**-*-* shall be fixed and routed so that it will be adequately protected against mechanical damage.

This information must accompany each device in an adequate form.

Schedule of Limitations:

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

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