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 06.0016U

Issue No: 1

Certificate history:
Issue No. 1 (2015-03-11)
Issue No. 0 (2006-03-09)

Status: **Current**

Date of Issue: **2015-03-11**

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

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

Optional accessory:

Type of Protection: **Flameproof enclosure “d”, Increased Safety “e”, Intrinsic safety 'i'**

Marking: Ex d e IIC Gb resp. Ex d e I Mb
or
Ex d ia/ib IIC Gb resp. Ex d ia/ib I Mb

Approved for issue on behalf of the IECEx Certification Body: Dr. Ing. Uwe Klausmeyer

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

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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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-7 : 2006-07 Edition:4	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/ExTR06.0020/01

Quality Assessment Report:

DE/PTB/QAR06.0001/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description of equipment

The Indicating Lamp type 8010 is an electrical device for indicating status of electrical systems or parts thereof by visual means. It is intended to be used in explosion hazardous areas.

The Indicating Lamp is a flameproof encapsulated device with electronics and LED inside. It is intended to be mounted into an enclosure of protection type Increased Safety "e". The enclosure usually will be equipped with transparent lamp insert covers also designed to protection type "e".

Further, there is a version of the indicating lamp of type of protection Intrinsic Safety "i" intended to be connected to intrinsically safe circuits .

Further information see Annex.

SPECIFIC CONDITIONS OF USE: NO

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

1) New test according to IEC 60079-0:2011 (Ed. 6), IEC 60079-1:2007 (Ed. 6), IEC 60079-7:2006 (Ed. 4), IEC 60079-11:2011 (Ed. 6)
2) New material (D0021-02) for the enclosure top part
3) The temperature range changes
4) New marking

Annex:

Annex-IECEx PTB 06.0016U Issue 1.pdf

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

Electrical Apparatus: Indicating Lamp type 8010/*-**

Description

The Indicating Lamp type 8010 is an electrical device for indicating status of electrical systems or parts thereof by visual means. It is intended to be used in explosion hazardous areas.
The Indicating Lamp is a flameproof encapsulated device with electronics and LED inside. It is intended to be mounted into an enclosure of protection type Increased Safety "e". The enclosure usually will be equipped with transparent lamp insert covers also designed to protection type "e".
Further, there is a version of the indicating lamp of type of protection Intrinsic Safety "i" intended to be connected to intrinsically safe circuits.

Nomenclature

8010	/	*	-	**
a	/	b		c

a) Type series
b) Design
2= Increased Safety (“e”) with screw terminals
3= Intrinsic Safety (“i”) with screw terminals
c) Rated voltage (Ex e or Ex i)

Ambient Temperature:

The device is to be mounted within an enclosure; the following maximum surrounding temperatures are to be observed:

	U ≤ 24 V	U ≤ 30 V	24 V < U ≤ 120 V	U > 120 V
8010/2	+70 °C	-	+65 °C	+60 °C
8010/3	+65 °C	+60 °C	-	-

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Bundesallee 100, 38116 Braunschweig, Germany
Postfach 33 45, 38023 Braunschweig, Germany
Telephone +49 531 592-0, Telefax +49 531 592-3605

Technical data

Type 8010 – General:

Optical source:	LED white
Risk group acc. IEC 62471:	RG0, free, exempt from risk, no photobiological hazard
Rated operational power consumption:	max. 1 W
Terminal capacity:	0.75 mm^2 to 2.5 mm^2, 1 or 2 flexible wires
Tightening torque:	max. 1.2 Nm
Degree of protection (terminals):	IP20

Type 8010/2 – Ex e version:

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

Type 8010/3 – Ex i version:

Terminals E001, E002	type of protection Intrinsic Safety Ex ia IIC or Ex ib IIC Only for connection to a certified intrinsically safe circuit. Maximum values U_i = 30 V I_i = 150 mA P_i = 1 W L_i ≈ 0 C_i≈ 0
Rated service temperature range:	-60 °C to +80 °C
Protection against contact, entry of solids and water:	Device is to be mounted within an enclosure. Terminals IP20

Notes for manufacturing and operation

The indicator light shall be installed in an enclosure that meets the requirements of an approved type of protection in accordance with IEC 60079-0, section 1. When installing the indicator light in an enclosure designed to type of protection Increased Safety “e” as specified in IEC 60079-7, the clearance and creepage distances shown in section 4.4, section 4.5, and table 1 shall be duly considered.

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