



IMPORTANT

Read this instruction carefully before installing the product

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For all related matters, see appendix.

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INTRODUCTION

Thank you for purchasing this product!
For installation, maintenance and assurance of a long life of this product, please follow this manual.

STORAGE AND PRESERVATION

The product should be stored in the original packing material, in a dry location and within the operational temperature range. The product may have been equipped with plastic plugs instead of, or in addition to cable glands, and these should be left as they are until cable glands are to be installed.

UNPACKING AND INSPECTIONS

While unpacking the product, please ensure that no loose items are lost. Inspect the exterior of the product for any transport damages and/or other defects. When opening the junction box, remove any foreign objects that may have been inserted for transportation and/or preservation purposes. If the product is to be repacked and kept for storage, replace any such preservation component(s).

Damages due to transportation is not the responsibility of the manufacturer. If the contents is not complete or the product does not work at intended, file a claim to the supplier or manufacturer immediately.

SAFETY INSTRUCTION

Changes made to the product not confirming to the approvals of this equipment, is a safety violation. The manufacturer is under no circumstances responsible for personal injuries, death or any other damage caused by such activities. For replacement and repairs of the terminal/junction box, only Tranberg AS spare parts may be used. Repairs effecting the explosion protection of the equipment, may only be carried out by Tranberg AS, or qualified electricians in compliance with the respective national regulations.

APPLICATIONS

The complete application built to specific needs, as terminal box, control station or High Voltage enclosure equipped with f. ex. bus bar.

MAINTENANCE / REPAIR / MODIFICATION

Before opening the junction box make sure that the power is disconnected. In case of intrinsically safe circuits, working is permitted while voltage applies.

Servicing the junction box is done by checking the intactness of the junction box, gasket and glands. If necessary lubricate the lid bolt threads with grease type Renolit Unitemp 2 from Fuchs or equivalent.

If repair or overhaul is necessary this may only be done with Tranberg spare parts.

Modification of the terminal / junction box or change of design are not permitted, except for installing additional glands and terminals according to the approval documents of the terminal / junction box.

INSTALLATION

Only qualified personnel are allowed to perform installation and maintenance tasks to this product.

The Terminal/Junction box may be equipped according to customer specification and is then ready for installation when leaving the production facilities of Tranberg AS. Otherwise the equipment installed in the Terminal/Junction box has to be according to product data sheet.

Note: The number of components varies dependent on the maximum operating temperature on conductors.

Mounting

The Terminal/Junction box should be mounted with the drainplug facing downwards. The Terminal-/Junction box is mounted with at least four bolts. M6 for TEF 1058 and TEF 1059 and M8 for TEF 1060.

Note: Prior to mounting the Junction box, all temporary plastic plugs shall be replaced with cable glands, stopping plugs, drain plug or similar. IECEx and ATEX approved.

Connections

In order to maintain the mode of protection, the conductor must be connected with special care. The isolation must reach up to the terminal and the conductor must not be damaged. All conductors, including floating/non-current carrying wires, should be properly terminated. Wires should not be bundled in bundles with more than three wires per bundle. For larger enclosures, cable trays are recommended, to ensure proper routing of the cables. All screws and nuts on the terminals are to be tightened, whether a cable is terminated or not.


For earth connections to a stud or a bar a cable lug shall be used.

Only certified cable entries and stopping plugs may be used. Make sure the cable gland matches the cable diameter and the holes in the Terminal-/Junction box, and tighten according to the cable gland user manual. Reinstall lid and tighten screws firmly by hand force. Over tightening of the lid screws may impair the mode of protection and ingress protection.

TECHNICAL DATA

Voltage:	24V DC
Current:	Max 3A
Temperature range:	-30°C to +55°C
Ingress Protection:	IP 66

APPROVALS

 II 2G Ex db eb T5 Gb

Ex db eb T5 Gb

ATEX: Presafe 14ATEX4124

IECEX: IECEX PRE 14.0001

EN 60079-0: 2012/A11:2013

EN 60079-1: 2014

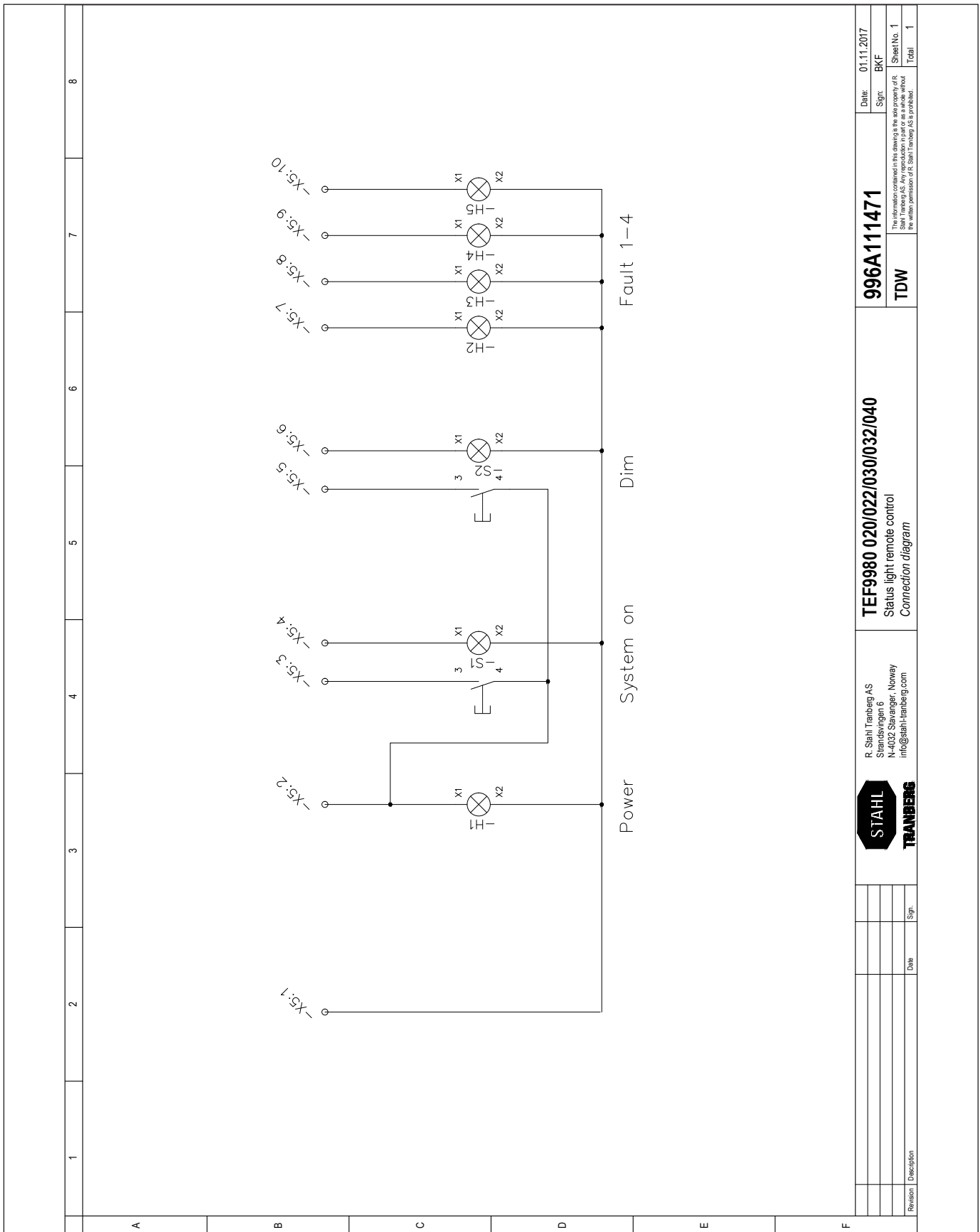
EN 60079-7: 2015

IEC 60079-0: 2017

IEC 60079-1: 2014

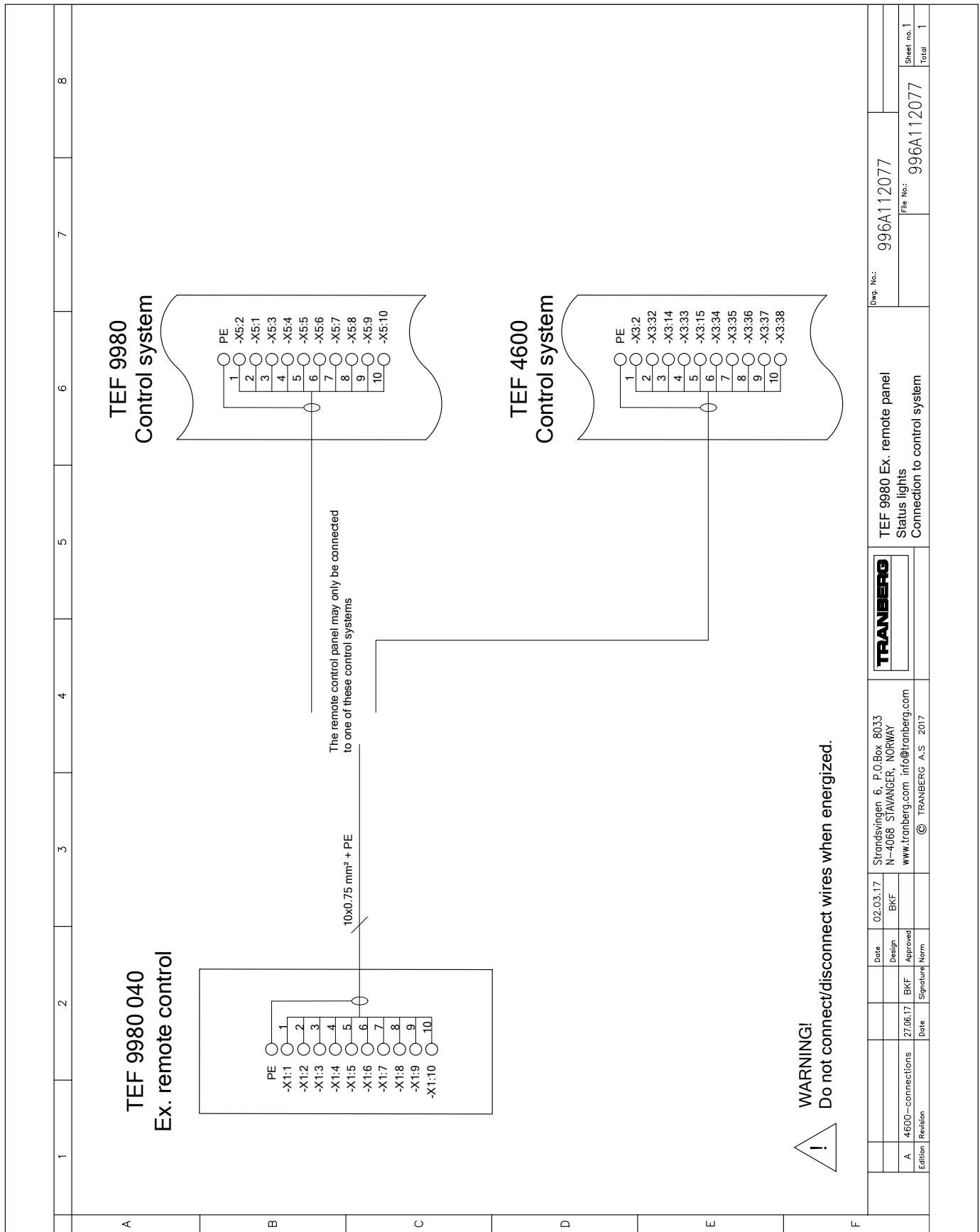
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DRAWING 996A11471 TEF 9980 EX PANEL, CONNECTION DIAGRAM



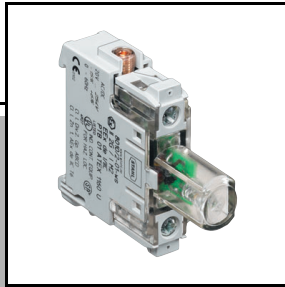
	996A11471	TEF9980 020/022/030/032/040	R. Stahl Tranberg AS Stensdøvrigen 6 N-4032 Staverig, Norway info@stahl-tranberg.com
Date: 01.11.2017	TDW	Status light remote control Connection diagram	Stahl Tranberg AS is a trademark of R. Stahl Tranberg AS
Sign: BKF			
Sheet No. 1			
Total 1			

DRAWING 996A112077 TEF 9980 EX PANEL, CONNECTION TO CONTROL SYSTEM



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12 APPENDIX 1 LED INDICATION LAMP SERIES 8010



Operating Instructions

Indicating lamp

> 8010



12 APPENDIX 1 LED INDICATION LAMP SERIES 8010

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2 General Information

2.1 Manufacturer

R. STAHL Schaltgeräte GmbH
 Am Bahnhof 30
 74638 Waldenburg
 Germany

Phone: +49 7942 943-0
 Fax: +49 7942 943-4333
 Internet: www.stahl-ex.com

2.2 Operating Instructions Information

ID-No.: 128907 / 8010602300
 Publication Code: 2011-02-08·BA00-III-en-02
 We reserve the right to make technical changes without notice.

2.3 Symbols



Warning!

This symbol indicates advice which, if ignored, puts your health or the ability of the device or devices to function at risk.



Note!

Marks important additional informations, tips and recommendations.



12 APPENDIX 1 LED INDICATION LAMP SERIES 8010**3 Safety Instructions**

The most important safety instructions are summarised in this section. They supplement the relevant regulations which must be studied by the personnel responsible.

When working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations. Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.

**As user, please observe:**

- ▶ National safety and accident prevention regulations,
- ▶ National installation regulations (e.g. IEC/EN 60079-14),
- ▶ Generally recognised technical regulations,
- ▶ Safety guidelines and information in these operating instructions,
- ▶ Characteristic values and rated operating conditions on the rating and data plates.
- ▶ that when fitting the device into enclosures with type of protection „increased Safety e“ the conditions given in IEC/EN 60079-0 and IEC/EN 60079-7 must be observed.
- ▶ that any damage can invalidate the Ex-protection.

Use the devices in accordance with the regulations and for its intended purpose only (see “Intended Use“). Incorrect and impermissible use or non-compliance with these instructions invalidates our warranty provision. No changes to the devices or components impairing their explosion protection are permitted. Further, they may only be fitted if they are undamaged, dry and clean.

4 Conformity to Standards

The relevant standards are listed in the EC Declaration of Conformity.

5 Intended Use





The indicating lamp displays the current state of a command by either switching on or switching off a light signal. In combination with a switchgear device, they indicate the switching state.


Type 8010/... indicating lamps are designed to be build into an enclosure of the protection type “Increased Safety e“.

The light signal is displayed from the enclosure via the transparent lamp insert cover equipped with a diffuser lens.

The devices are approved for use in hazardous area zones 1 and 2.

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Marking	
Europe (ATEX)	 II 2 G Ex d e IIC  II 2 G Ex d ia/ib IIC  I M 2 Ex d e I  I M 2 Ex d ia/ib I
IECEX	Ex d e IIC Ex d ia/ib IIC Ex d e I Ex d ia/ib I
Certificates	
Europe (ATEX)	PTB 01 ATEX 1160 U
IECEX	IECEX PTB 06.0016 U
Ambient temperature at temperature class	T6: - 20 ... + 40 °C T4: - 20 ... + 55 °C
Rated operational voltage	Ex e: 12 (- 10 %) ... 254 (+ 6 %) V AC / DC Ex i: 10.8 ... 30 V
Safety-specific maximum values (Ex i)	$U_i \leq 30 \text{ V}$, $I_i \leq 150 \text{ mA}$, $P_i \leq 1 \text{ W}$, inductance L_i and capacity C_i negligible
Rated operational current	max. 15 mA
Rated operational power	max. 1 W
Electrical life	10^5 lighting hours
Frequency range	0 ... 60 Hz
Lamps	white LED
Luminance	1200 cd/m ²
Colour	red, yellow, green, blue, white; via coloured lenses (not included in delivery)
Mechanical data	
Enclosure material	Polyamide
Terminals	2.5 mm ² , flexible
Tightening torque	max. 1.2 Nm
Degree of protection	IP20 (connection) acc. to IEC 60529
Lens	
Version	∅ 38 mm, colour: red, yellow, green, blue and clear

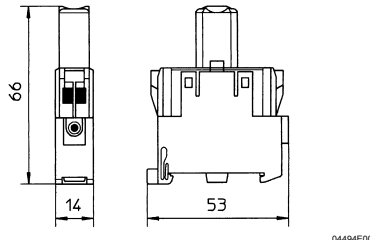
 The indicating lamps are LEDs.

Class 1 light-emitting diodes are employed in accordance with DIN EN 60825-1.

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7 Arrangement and Assembly

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



Indicating lamp 8010/2 and 8010/3



Please note the following when snapping indicating lamps onto a mounting rail:

- ▶ The indicating lamp must not be turned at an angle!
- ▶ The indicating lamp must be securely seated on the rail!

8 Installation / Mains connection



When installing, please note that:

Particular care should be taken when making the connections.

When stripping wire endings, make sure that the insulation extends up to the terminal block.

Do not damage (nick) the conductor when stripping off the insulation.

Ensure that the maximum permissible conductor temperatures are not exceeded by selecting suitable cables and a suitable means of running them.

Pay attention to the specifications in the technical data relating to the terminals.


9 Commissioning

Before commissioning, ensure that

- ▶ the connections have been correctly made.
- ▶ the indicating lamp was installed in accordance with the regulations.
- ▶ the indicating lamp is not damaged.
- ▶ all screws are tightened firmly.
- ▶ the flameproof enclosure is not damaged.


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10 Maintenance and Servicing

 Maintenance work on the devices must only be performed by personnel who are both authorised and suitably trained for this purpose. Before any work commences, the indicating lamps must be disconnected from the power supply.

The following must be checked during maintenance:

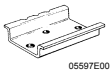
- ▶ that the terminal wires are clamped properly,
- ▶ plastic enclosures for the formation of cracks,
- ▶ operating temperature (as per IEC/EN 60079-0),
- ▶ the function in accordance with regulations.

 Observe the relevant national regulations in the country of use!

11 Accessories and Spare Parts

WARNING

▶ Use only R. STAHL accessories and spare parts.

Designation	Illustration	Description	Art. no.	Weight kg
Mounting rail		Size 29 77 mm long, for max. 5 isolating terminals	137812	0.024
		Size 30 133 mm long, for max. 9 isolating terminals	137819	0.040
		Size 31 189 mm long, for max. 13 isolating terminals	137827	0.060
		Size 32 301 mm long, for max. 21 isolating terminals	137834	0.094

12 Transport and Storage

Transport and storage are only permissible in the original packaging.

13 Disposal

Observe the national waste disposal regulations.

12 APPENDIX 1 LED INDICATION LAMP SERIES 8010

Konformitätserklärung Declaration of Conformity Déclaration de Conformité



R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany
erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: **Leuchtelement**
that the product: Indicating lamp
que le produit: Voyant lumineux

Typ(en), type(s), type(s): **8010/2-****
8010/3-**

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) Directive(s) Directive(s)	Norm(en) Standard(s) Norme(s)
94/9/EG: ATEX-Richtlinie 94/9/EC: ATEX Directive 94/9/CE: Directive ATEX	EN 60079-0:2012 EN 60079-1:2007 EN 60079-7:2007 EN 60079-11:2012

Kennzeichnung, marking, marquage: **II 2 G Ex d e IIC Gb or**
Ex II 2 G Ex d ia IIC Gb **NB0158**
I M2 Ex d e I Mb

EG-Baumusterprüfbescheinigung: **PTB 01 ATEX 1160 U**
EC Type Examination Certificate: (Physikalisch-Technische Bundesanstalt,
Attestation d'examen CE de type: Bundesallee 100, 38116 Braunschweig, Germany, NB0102)

Produktnormen nach Niederspannungsrichtlinie:
Product standards according to Low Voltage Directive:
Normes des produit pour la Directive Basse Tension:
EN 60947-1:2007+ A1:2011
EN 60947-5-1:2004 + A1:2009

2004/108/EG: EMV-Richtlinie
2004/108/EC: EMC Directive
2004/108/CE: Directive CEM
EN 60947-1:2007+ A1:2011
EN 60947-5-1:2004 + A1:2009

Spezifische Merkmale und Bedingungen für den Einbau siehe Betriebsanleitung.
Specific characteristics and how to incorporate see operating instructions.
Caractéristiques et conditions spécifiques pour l'installation voir le mode d'emploi.

Waldenburg, 2014-07-21

Ort und Datum
Place and date
Lieu et date

i.V.

Steffen Buhl
Leiter Entwicklung Schaltgeräte
Director R&D Switchgear
Directeur R&D Appareillage

i.V.

J.-P. Rückgauer
Leiter Qualitätsmanagement
Director Quality Management
Directeur Assurance de Qualité

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128907 / 8010602300
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