Linear Luminaire for Fluorescent Lamps

Series EXLUX 6001
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1 General Information

1.1 Manufacturer

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1.2 Information regarding the operating instructions
ID-No.: 222203 / 600160300010
Publication Code: 2020-06-12·BA00·III·en·06

The original instructions are the English edition.
They are legally binding in all legal affairs.

1.3 Further documents

- Data sheet
For documents in additional languages, see r-stahl.com.

1.4 Conformity with standards and regulations

The device has IECEx approval. For certificate please refer to the IECEx homepage:
http://iecex.iec.ch/
Further national certificates can be downloaded via the following link:
2 Explanation of the symbols

2.1 Symbols in these operating instructions

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>📝</td>
<td>Tips and recommendations on the use of the device</td>
</tr>
<tr>
<td>EX</td>
<td>Danger due to explosive atmosphere</td>
</tr>
<tr>
<td>🚨</td>
<td>Danger due to live components</td>
</tr>
</tbody>
</table>

2.2 Warning notes

Warnings must be observed under all circumstances, in order to minimize the risk due to construction and operation. The warning notes have the following structure:
- Signalling word: DANGER, WARNING, CAUTION, NOTICE
- Type and source of danger/damage
- Consequences of danger
- Taking countermeasures to avoid the danger or damage

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️</td>
<td>DANGER</td>
</tr>
<tr>
<td>🚨</td>
<td>WARNING</td>
</tr>
<tr>
<td>🚨</td>
<td>CAUTION</td>
</tr>
<tr>
<td>📝</td>
<td>NOTICE</td>
</tr>
</tbody>
</table>

DANGER
Danger to persons
Non-compliance with the instruction results in severe or fatal injuries to persons.

WARNING
Danger to persons
Non-compliance with the instruction can result in severe or fatal injuries to persons.

CAUTION
Danger to persons
Non-compliance with the instruction can result in light injuries to persons.

NOTICE
Avoiding material damage
Non-compliance with the instruction can result in material damage to the device and / or its environment.
2.3 Symbols on the device

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 0558</td>
<td>CE marking according to the currently applicable directive.</td>
</tr>
<tr>
<td>Ex 02198</td>
<td>According to marking, device approved for hazardous areas.</td>
</tr>
</tbody>
</table>

3 Safety notes

3.1 Operating instructions storage
- Read the operating instructions carefully.
- Store the operating instructions at the mounting location of the device.
- Observe applicable documents and operating instructions of the devices to be connected.

3.2 Safe use

Before mounting
- Read and observe the safety notes in these operating instructions!
- Ensure that the contents of these operating instructions are fully understood by the personnel in charge.
- Use the device in accordance with its intended and approved purpose only.
- Always consult R. STAHL Schaltgeräte GmbH if using the device under operating conditions which are not covered by the technical data.
- We cannot be held liable for damage to the device caused by incorrect or unauthorised use or non-compliance with these operating instructions.

For assembly and installation
- Observe national assembly and installation regulations (e.g. IEC/EN 60079-14).
- Observe national safety and accident prevention regulations.
- During installation and operation, observe the information (characteristic values and rated operating conditions) on the type plates and data plates and information signs located on the device.
- Before installation, make sure that the device is not damaged.

Maintenance, repair, commissioning
- Before commissioning, make sure that the device is not damaged.
- Work on the device, such as installation, maintenance, overhaul, repair, may only be carried out by appropriately authorised and trained personnel.
- Perform only maintenance work or repair described in these operating instructions.
3.3 Intended Use
The light fitting 6001 is equipment
• for lighting areas, work spaces and objects
• can be used indoors and outdoors
• for stationary mounting
• for use in Zones 1, 21, 2, 22 and in the safe area

3.4 Modifications and alterations

<table>
<thead>
<tr>
<th>DANGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard due to modifications and alterations to the device! Non-compliance results in severe or fatal injuries.</td>
</tr>
<tr>
<td>• Do not modify or alter the device.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>i</th>
</tr>
</thead>
<tbody>
<tr>
<td>No liability or warranty for damage resulting from modifications and alterations.</td>
</tr>
</tbody>
</table>

4 Function and device design

<table>
<thead>
<tr>
<th>DANGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard due to improper use! Non-compliance results in severe or fatal injuries.</td>
</tr>
<tr>
<td>• Use the device only in accordance with the operating conditions described in these operating instructions.</td>
</tr>
<tr>
<td>• Use the device only for the intended purpose specified in these operating instructions.</td>
</tr>
</tbody>
</table>

4.1 Function

Application range
The light fitting 6001 is equipment used for lighting areas, work equipment and objects. It can be used indoors and outdoors.

Mode of operation
When opened using a central lock, the light fitting switches off automatically (standard version).
4.2 Device design

1. Lamp holder
2. Control gear
3. Translucent cover
4. Cable entry
5. Connection terminal (left standard, right for through wiring)
6. Light fitting enclosure
7. Reflector plate
8. Address module (optional)
## Technical data

### Explosion Protection

**Global (IECEx)**
- Gas and dust: IECEx PTB 13.0003
  - Ex db eb IIC T4 Gb
  - Ex tb IIIC T80°C Db

**Europe (ATEX)**
- Gas and dust: PTB 13 ATEX 2004
  - I 2 G Ex db eb IIC T4 Gb
  - I 2 D Ex tb IIIC T80°C Db

### Certifications and certificates
- Certificates: IECEx, ATEX, Brazil (INMETRO), India (PESO), Russia (EAC)
- Ship approval: DNV GL, BV

### Technical Data

**Electrical data**

<table>
<thead>
<tr>
<th>Standard</th>
<th>with address module</th>
<th>Wide-range voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 to 240 V AC ±10%, 50 to 60 Hz</td>
<td>220 to 230 V AC ±10%, 50 Hz</td>
<td>110 to 240 V AC ±10%, 50 to 60 Hz</td>
</tr>
<tr>
<td>196 to 240 V DC ±10%</td>
<td>196 to 230 V DC ±10%</td>
<td>110 to 240 V DC ±10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated operational current</th>
<th>Size 2</th>
<th>Size 4</th>
<th>Size 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>230 V; 50 Hz</td>
<td>170 mA</td>
<td>300 mA</td>
<td>470 mA</td>
</tr>
<tr>
<td>110 V; 60 Hz</td>
<td>345 mA</td>
<td>630 mA</td>
<td>–</td>
</tr>
</tbody>
</table>

**Inrush current**

**Size 2 and size 4**

For 230 V AC line voltage:
- \( I_{\text{peak}} = 51.4 \text{ A} \); \( \Delta t = 144 \mu\text{s} \)
- Maximum number of luminaires per miniature circuit breaker:

<table>
<thead>
<tr>
<th>Type</th>
<th>10 A</th>
<th>16 A</th>
<th>20 A</th>
<th>25 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>11</td>
<td>18</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>C</td>
<td>19</td>
<td>30</td>
<td>39</td>
<td>47</td>
</tr>
</tbody>
</table>

For 110 V AC line voltage:
- \( I_{\text{peak}} = 23.1 \text{ A} \); \( \Delta t = 148 \mu\text{s} \)
- Maximum number of luminaires per miniature circuit breaker:

<table>
<thead>
<tr>
<th>Type</th>
<th>10 A</th>
<th>16 A</th>
<th>20 A</th>
<th>25 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>25</td>
<td>40</td>
<td>50</td>
<td>62</td>
</tr>
<tr>
<td>C</td>
<td>41</td>
<td>66</td>
<td>82</td>
<td>103</td>
</tr>
</tbody>
</table>
### Technical Data

#### Size 6

For 230 V AC line voltage:

\[ I_{\text{peak}} = 54 \, \text{A}; \Delta t = 178 \, \mu\text{s} \]

Maximum number of luminaires per miniature circuit breaker:

<table>
<thead>
<tr>
<th>Type</th>
<th>10 A</th>
<th>16 A</th>
<th>20 A</th>
<th>25 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>8</td>
<td>13</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>C</td>
<td>13</td>
<td>22</td>
<td>27</td>
<td>34</td>
</tr>
</tbody>
</table>

Power factor \( \cos \varphi \geq 0.95 \) capacitive; no additional compensation necessary

**Disconnection of the light**

*When opening the luminaire*

Switch with safety lock; when opening the central lock all poles of the voltage supply to the control gear are disconnected; contacts of the switching element are positive opening, they can only be switched on again when the translucent cover and the central locking system are closed.

*In case of a lamp failure*, the control gear disconnects the defective lamp from the power supply.

Protection class I (with internal PE connection)

#### Luminous characteristics

**Measures for light guidance**

**Standard:** Deep bowl, reflector of the lamp is white

Lateral dazzle limitation in the lamp cover

**Lamp standard**

<table>
<thead>
<tr>
<th>Size 2</th>
<th>Size 4</th>
<th>Size 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>60081-IEC-2220-1</td>
<td>60081-IEC-2420-1</td>
<td>60081-IEC-2620-1</td>
</tr>
</tbody>
</table>

**Lamp operation**

<table>
<thead>
<tr>
<th>Input voltage</th>
<th>AC</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-lamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-lamp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6001/5...0...</th>
</tr>
</thead>
<tbody>
<tr>
<td>6001/5...2...</td>
</tr>
<tr>
<td>6001/5...1...</td>
</tr>
<tr>
<td>6001/5...3...</td>
</tr>
</tbody>
</table>

**Input voltage**

<table>
<thead>
<tr>
<th>2-lamp</th>
<th>2-lamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>6001/5...0...</td>
<td></td>
</tr>
<tr>
<td>6001/5...2...</td>
<td></td>
</tr>
<tr>
<td>6001/5...1...</td>
<td></td>
</tr>
<tr>
<td>6001/5...3...</td>
<td></td>
</tr>
</tbody>
</table>
### Technical Data

#### Ambient conditions

<table>
<thead>
<tr>
<th>Operating temperature range</th>
<th>220 to 240 V variants:</th>
<th>110 to 240 V variants:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Size 2</strong></td>
<td><strong>Size 4</strong></td>
</tr>
<tr>
<td>without through wiring</td>
<td>-30 to +60 °C</td>
<td>-30 to +55 °C</td>
</tr>
<tr>
<td>$I_N$ through wiring $\leq 8$ A</td>
<td>-30 to +55 °C</td>
<td>-30 to +55 °C</td>
</tr>
<tr>
<td>$I_N$ through wiring $\leq 10$ A</td>
<td>-30 to +55 °C</td>
<td>-30 to +55 °C</td>
</tr>
<tr>
<td>$I_N$ through wiring $\leq 16$ A</td>
<td>-30 to +50 °C</td>
<td>-30 to +50 °C</td>
</tr>
</tbody>
</table>

For variants with an address module, the lowest service temperature is -20 °C.

#### Mechanical data

- **Degree of protection**: IP66 / IP67 (IEC 60598), IP64 if a breather is used
- **Impact strength (IK code)**: IK10 (IEC 62262)
- **Material**
  - **Enclosure**: Polyester resin, glass fibre reinforced
  - **Enclosure colours**: Grey colour, similar to RAL 7035
  - **Lamp cover**: Polycarbonate
  - **Seal**: Silicone foam gasket in the lamp cover
  - **Luminaire locking**: Central lock for M8 / A/F 13 box spanner; the translucent cover can be swivelled on its hinge
## Technical Data

### Mounting / Installation

#### Cable glands

**Standard luminaire**
- Plastic: 2 x M25 x 1.5 cable entry 8161 and 2 x M25 x 1.5 stopping plugs 8290 (enclosed)
- Metal: 2 x metal plates M20 x 1.5 connected by means of PE for metal cable entries
  - Attention: cable entries must be ordered separately
- Special version: max. 4 drilled holes for M20, M25, NPSM ½"
  - Metal cable glands: M20 x 1.5, M25 x 1.5; earthing metal cable entries using metal plates

#### Connection

- Spring clamp terminals
- Standard: 5-pole: L1, L2, L3, N, PE
  - with address module: 5-pole: L+, N-, PE, L', N'
- Clamping range:
  - 1 x 1.5 to 6 mm² (solid)
  - 1 x 1.5 to 4 mm² (finely stranded)
  - 1 x 1.5 to 6 mm² (finely stranded with core end sleeve)
  - (2 free clamping units per pole available)

#### Through wiring

**Standard luminaire**
- Luminaries are equipped with internal through wiring.
  - Connection of ingoing and outgoing leads on opposite sides is possible.
  - Terminals: See Tech. data
  - Wiring cross section of the supply line connection: 2.5 mm² for max. 16 A
  - (Observe service temperature)

**Optional**
- without
  - On the connection side, there are 2 bores M25 x 1.5 for cable entries for through wiring of the connection line (ingoing and outgoing leads on one side).

### Assembly

**Standard luminaire**
- Standard: 2 x M8 insert nuts in the enclosure
- Special version: Mounting grooves in the enclosure for use of fastening and ceiling rails for variable luminaire mounting
  - (variable mounting distances for luminaires)
  - Size 2: 320 to 480 mm;
  - size 4, size 6: 670 to 930 mm
Transport and storage

## Technical Data

### Optional

| Address module | **Control input:**  
Rated voltage: 220 to 230 V 50 Hz AC/DC |
|----------------|---------------------------------------------------------------|
| **Function:**  
Address and switching module for R. STAHLE emergency lighting systems according to VDE 0108:  
The module is used for monitoring individual luminaires and for the control of mains and emergency luminaires.  
The module offers the following functions:  
- Control of the luminaire (ON / OFF) and calling up the function  
- Up to 20 addresses can be configured for each electrical circuit by means of a coding switch  
- The type of connection (continuous light, stand-by light or switched light) of the luminaire is freely programmable  
- Mixed operation within a circuit is possible |

| Breather | Breather 8162/1 from R.STAHL Schaltgeräte GmbH  
The breather guarantees compliance with degree of protection IP64 in all mounting positions. The breather may not be used in atmospheres with corrosive gases. |

For further technical data, see r-stahl.com.

### Transport and storage

- Transport and store the device only in the original packaging.
- Store the device in a dry place (no condensation) and vibration-free.
- Do not drop the device.
7 Mounting and installation

**DANGER**
Explosion hazard due to incorrect installation of the device!
Non-compliance results in severe or fatal injuries.
- Carry out installation strictly according to the instructions and national safety and accident prevention regulations to maintain the explosion protection.
- Select and install the electrical device so that explosion protection is not affected due to external influences, i.e. pressure conditions, chemical, mechanical, thermal and electric impact such as vibration, humidity and corrosion (see IEC/EN 60079-14).
- The device must only be installed by trained qualified personnel who is familiar with the relevant standards.

**NOTICE**
Malfunction or device damage caused by condensation.
Non-compliance can result in material damage!
- operate the luminaire continuously or periodically over extended periods of time.
- avoid thermal bridges.

7.1 Dimensions / fastening dimensions

**Dimensional drawings** (all dimensions in mm [inches]) – Subject to modification

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Light fitting</th>
<th>Size 2</th>
<th>Size 4</th>
<th>Size 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td></td>
<td>700 [27.56]</td>
<td>1310 [51.57]</td>
<td>1610 [63.39]</td>
</tr>
<tr>
<td>L2 1)</td>
<td></td>
<td>400 [15.75]</td>
<td>800 [31.50]</td>
<td>800 [31.50]</td>
</tr>
<tr>
<td>L3 2)</td>
<td></td>
<td>320 to 480 [12.60 to 18.90]</td>
<td>670 to 930 [26.38 to 36.61]</td>
<td>670 to 930 [26.38 to 36.61]</td>
</tr>
</tbody>
</table>

1) fixed mounting distance
2) variable mounting distance

**EXLUX 6001 Standard luminaire**
Mounting and installation

Dimensional drawings for assembly parts and accessories
(all dimensions in mm) – Subject to alterations

Mounting rail

Ring bolt fitted in insert nut of the luminaire

Mounting bracket fitted in mounting rail

Pipe clamp fitted in mounting rail

Wall mounting bracket fitted in mounting rail
7.2 Removing protective foil
As standard, the luminaire is generally delivered with protective foil on the translucent cover. However, in some cases, it can be delivered without protective foil.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Light fitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>978 [38.50]</td>
</tr>
<tr>
<td>L2</td>
<td>390 [15.35]</td>
</tr>
<tr>
<td>Size 2</td>
<td>1587 [62.48]</td>
</tr>
<tr>
<td>Size 4</td>
<td>338 [13.31]</td>
</tr>
</tbody>
</table>

**DANGER**
Explosion hazard due to electrostatic discharge!
Non-compliance results in severe or fatal injuries.
- Only remove protective foil in safe areas.

- If protective foil is available:
  Remove protective foil prior to commissioning.
7.3 Mounting / dismounting, operating position

<table>
<thead>
<tr>
<th>DANGER</th>
</tr>
</thead>
</table>

**Explosion hazard due to electrostatic discharge!**
Non-compliance results in severe or fatal injuries.

Do not use the luminaire in strong charge generating environments!

The following processes/activities should be avoided:
- accidental friction
- particle currents

<table>
<thead>
<tr>
<th>DANGER</th>
</tr>
</thead>
</table>

**Explosion hazard due to inadmissible heating!**
Non-compliance results in severe or fatal injuries.

- Avoid external heat sources and/or direct sunlight (risk of change of temperature class or change of maximum permissible surface temperature).
- Do not exceed the maximum ambient temperature due to external heat sources (premature failure of equipment).

The luminaire is suitable for wall and ceiling mounting.

In event of wall mounting in outdoor areas, avoid installation with central lock at top.

The mounting position with upward light emission in outdoor areas is prohibited.

Suspension at fixed mounting points

<table>
<thead>
<tr>
<th>Size</th>
<th>L2 mm [inch]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>400 [15.75]</td>
</tr>
<tr>
<td>4</td>
<td>800 [31.50]</td>
</tr>
<tr>
<td>6</td>
<td>800 [31.50]</td>
</tr>
</tbody>
</table>

max. screw-in depth 10 mm [0.39]
Mounting and installation

Suspension at movable mounting parts

Mounting bracket

<table>
<thead>
<tr>
<th>Size</th>
<th>L4 mm [inch]</th>
<th>L mm [inch]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>320 [12.60]</td>
<td>80 [3.15]</td>
</tr>
<tr>
<td>4</td>
<td>670 [26.38]</td>
<td>130 [5.12]</td>
</tr>
<tr>
<td>6</td>
<td>670 [26.38]</td>
<td>130 [5.12]</td>
</tr>
</tbody>
</table>

Top rail

Lateral mounting pockets for variable points of suspension.

When mounting the luminaire using top rails, ensure that the mounting surface is flat. Otherwise, the enclosure might be mounted in a warped/twisted way. The result is leakage of the luminaire and difficulties in replacing the translucent cover.

Pole suspension

Pole mounting using pipe clamps

Size | L4 mm [inch] | L mm [inch] |
-----|--------------|-------------|
2    | 320 [12.60]  | 80 [3.15]   |
4    | 670 [26.38]  | 130 [5.12]  |
6    | 670 [26.38]  | 130 [5.12]  |
Mounting and installation

For pipe clamp mounting, use the solution of R. STAHL Schaltgeräte GmbH with integrated mounting rail providing reliable and stable four-point fixing! In case of point suspension using pipe clamps, R. STAHL Schaltgeräte GmbH does not guarantee the strength and tightness of the luminaire!

Pole mounting using pole mounting sleeve

Only for size 2 and size 4

Wall bracket mounting

<table>
<thead>
<tr>
<th>Size</th>
<th>L4 mm [inch]</th>
<th>L mm [inch]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>320 [12.60]</td>
<td>80 [3.15]</td>
</tr>
<tr>
<td>4</td>
<td>670 [26.38]</td>
<td>130 [5.12]</td>
</tr>
<tr>
<td>6</td>
<td>670 [26.38]</td>
<td>130 [5.12]</td>
</tr>
</tbody>
</table>
7.4 Installation

7.4.1 Opening and Closing of the Enclosure

**DANGER**

Risk of electric shock due to improper opening!
Non-compliance results in severe or fatal injuries.
- Open luminaires without switch only in de-energized state (see information plate on the lock)!

**Recommendation**

Opening and closing of the luminaire by using a socket wrench from R. STAHL Schaltgeräte GmbH.

- Remove the closing cap of the central lock.
- Turn the central lock using a box spanner M8, spanner size 13, by 90° to the left as far as it will go.
- Swivel down the translucent cover.
- Proceed in reverse order to close.
- The seal of the translucent cover must lie correctly on the sealing edge.
- Push the closing cap onto the central lock opening (protection against dirt).
Opening and closing the reflector plate

Opening:
- Open the reflector plate by pressing down on the safety latch (1).
- Swivel down the reflector plate (2).

Closing:
- Flip up the reflector plate and snap it into place.

7.4.2 Electrical connections

Electrical connection

Observe the maximum clamping possibility of the connecting terminals (see chapter "Technical data").

For optional screw terminals, two conductors per clamping unit can be clamped (through wiring).

Observe the following when connecting to the main supply:
- Clamping must be carried out precisely!
- Do not clamp any part of the conductor insulation!
- Do not mix up the conductors!
- Observe the technical regulations when connecting the conductor!
- Clamp the conductor firmly.
- Do not remove the terminal cover of optional screw terminals to clamp the conductor!
Connection terminals

**Clamping range:**
1 x 1.5 to 6 mm² (solid)
1 x 1.5 to 4 mm² (finely stranded)
1 x 1.5 to 6 mm² (finely stranded with core end sleeves)
(2 free clamping units per pole available)

**Stripping length:**
10 to 12 mm

**Standard:**

L1, L2, L3 = phase
N = neutral conductor
PE = protective conductor

With address module:

L', N' = control input
L+, N- = final electrical circuit
PE = protective conductor

**Through wiring of the mains supply connection**

Through wiring with 2.5 mm² cross section for max. 16 A.
7.4.3 Luminaires with address module

Before operating an emergency lighting central battery system, luminaire addressing is to be performed by means of a 4 mm screwdriver for slotted screws.

### Control input (L’, N’):
The address module provides the opportunity to connect a control line for switching the luminaire together with the general lighting.

#### X, Y = address switch

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>Luminaire address</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0 (invalid)</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>1 to 9</td>
<td>invalid</td>
</tr>
</tbody>
</table>

**L, N**
- FZB
- Power supply network: 10 Control line
- Battery system: 14 Emergency lighting
- General lighting switch: 15 General lighting
7.4.4 Cable entries
The standard luminaire is delivered with 3 lead-in holes, 2 cable glands and 2 stopping plug.

**Tightening torques for components from R. STAHL Schaltgeräte GmbH**

Luminaires with installed cable entries and stopping plugs from R. STAHL Schaltgeräte GmbH must be tightened using the following values:

<table>
<thead>
<tr>
<th></th>
<th>Connection thread</th>
<th>Pressure screw</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cable entry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8161 M20 x 1.5</td>
<td>2.3 Nm</td>
<td>1.5 Nm</td>
</tr>
<tr>
<td>8161 M25 x 1.5</td>
<td>3.0 Nm</td>
<td>2.0 Nm</td>
</tr>
<tr>
<td><strong>Stopping plugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8290 M20 x 1.5</td>
<td>1.0 Nm</td>
<td>–</td>
</tr>
<tr>
<td>8290 M25 x 1.5</td>
<td>1.5 Nm</td>
<td>–</td>
</tr>
</tbody>
</table>

**Luminaires with cable entries and stopping plugs which are not supplied by R. STAHL Schaltgeräte GmbH**

**DANGER**

Explosion hazard due to impermissible cable entries and stopping plugs! Non-compliance results in severe or fatal injuries.

- Only use separately certified cable glands and stopping plugs which have been tested and certified according to Directive 2014/34/EU (ATEX) or IECEx (CoC) and which comply with the standard version stated in the certificate of the luminaire.

Please observe the following:

- the required dust resistance!
- the required type of protection!
- the required temperature resistance!
- the IP degree of protection according to the rating plate!
- the operating instructions of the cable entries and stopping plugs!
- the required tightening torques!
- the range of the permissible cable diameter!
- Insert the metal cable entries and/or stopping plugs into the PE!
8 Commissioning

**DANGER**
Explosion hazard due to incorrect installation!
Non-compliance results in severe or fatal injuries.
- Check the device for proper installation before commissioning.
- Comply with national regulations.

**NOTICE**
Malfunction or device damage caused by condensation.
Non-compliance can result in material damage!
- operate the luminaire continuously or periodically over extended periods of time.
- avoid thermal bridges.

Before commissioning, ensure the following:
- Check the mounting and installation.
- Inspect enclosure for damage.
- If necessary, remove foreign bodies.
- If necessary, clean the connection chamber.
- Check if the conductors have been inserted correctly.
- Check if all screws and nuts have been tightened firmly.
- Check if all drilled holes are closed.
- Check whether all the cable entries and stopping plugs have been tightened firmly.
- Check if the line voltage and the rated operational voltage are consistent.
- Check if the permissible conductor diameter for the corresponding cable entries have been used.
- Check if the device is closed according to regulations.
- Check that there is no protective foil on the translucent cover.

9 Operation

9.1 Troubleshooting
Observe the following troubleshooting plan for troubleshooting:

<table>
<thead>
<tr>
<th>Cause of error</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lamp was incorrectly inserted.</td>
<td>Insert the lamp correctly.</td>
</tr>
<tr>
<td>The lamp is defective.</td>
<td>Replace the lamp.</td>
</tr>
<tr>
<td>The control gear is defective.</td>
<td>Replace the control gear.</td>
</tr>
<tr>
<td>The switch is defective.</td>
<td>Replace the switch.</td>
</tr>
<tr>
<td>The lamp reached its end of service life.</td>
<td>Replace the lamp.</td>
</tr>
</tbody>
</table>
If the error cannot be eliminated using the mentioned procedures:
• Contact R. STAHL Schaltgeräte GmbH.

For fast processing, have the following information ready:
• Type and serial number of the device
• Purchase information
• Error description
• Intended use (in particular input / output wiring)

## 10 Maintenance, Overhaul, Repair

### CAUTION

Risk of electric shock or malfunction of the device due to unauthorized work!
Non-compliance can result in light injuries!
• Before carrying out work on the device, switch off voltage supply.
• Work performed on the device must only be carried out by authorized and appropriately trained qualified electricians.

### 10.1 Maintenance

• Consult the relevant national regulations to determine the type and extent of inspections.
• Adapt inspection intervals to the operating conditions.
• Perform maintenance and repair work in accordance with IEC 60079-17 and IEC 60079-19.

Observe the relevant national regulations in the country of use.

As a minimum, check the following points during maintenance work on the device:
• Whether the clamping screws holding the cables are securely seated
• Whether the device enclosure and/or protective enclosure have cracks or other visible signs of damage
• Whether the seal shows signs of ageing or damage (completely replace enclosure components with damaged foamed seal)
• Whether the device is clean inside and out
• Whether the permissible temperatures (in accordance with EN 60079) are complied with
• Whether the cable entry is intact and securely tightened
• Whether the cables and lines show signs of ageing and damage
• Intended use and function.
10.1.1 Replacement of lamps

Only use fluorescent lamps with pins made of brass.

When replacing the lamps, ensure the following:
- Undamaged lamp bases
- The holders have a springy length compensation of 2.5 mm each
- Fit of the lamp; a secure lamp fit after rotation
- Timely replacement of the lamps
- Service life of the device according to manufacturer's specifications
- EOL safety shutdown: The control gear switches off the lamp at the end of the service life.

10.1.2 Replacing the luminaire cover

- Insert both lamp bases of the lamp into the holder slots as far as possible.
- Turn the lamp clockwise or anticlockwise to bring it into the operating position.
- Dismounting is carried out in reverse order.

- Open the luminaire.
- Swivel the translucent cover backwards by 180°.
- Lift the translucent cover to detach it from the hinge.
- Insert new translucent cover into the hinge.
- All hinges must engage correctly.
- Close the luminaire.
- Observe safety notes!
10.2 Repair

**DANGER**

Explosion hazard due to improper repair!
Non-compliance results in severe or fatal injuries.
- Repair work on the devices must be performed only by R. STAHL Schaltgeräte GmbH.

10.3 Returning the device

- Only return or package the devices after consulting R. STAHL!
Contact the responsible representative from R. STAHL.

R. STAHL's customer service is available to handle returns if repair or service is required.
- Contact customer service personally.

or

- Go to the r-stahl.com website.
- Under "Support" > "RMA" > select "RMA-REQUEST".
- Fill out the form and send it.
  You will automatically receive an RMA form via email. Please print this file off.
- Send the device along with the RMA form in the packaging to
  R. STAHL Schaltgeräte GmbH (refer to chapter 1.1 for the address).

11 Cleaning

- To avoid electrostatic charging, the devices located in potentially explosive areas may only be cleaned using a damp cloth.
- When cleaning with a damp cloth, use water or mild, non-abrasive, non-scratching cleaning agents.
- Do not use aggressive detergents or solvents.
- Never clean the device with a strong water jet, e.g. using a high-pressure washer!
12 **Disposal**
- Observe national and local regulations and statutory regulation regarding disposal.
- Separate materials when sending it for recycling.
- Ensure environmentally friendly disposal of all components according to the statutory regulations.

13 **Accessories and Spare parts**

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malfunction or damage to the device due to the use of non-original components. Non-compliance can result in material damage.</td>
</tr>
<tr>
<td>• Use only original accessories and spare parts from R. STAHL Schaltgeräte GmbH.</td>
</tr>
</tbody>
</table>

For accessories and spare parts, see data sheet on our homepage r-stahl.com.


**EU-Konformitätserklärung**  
**EU Declaration of Conformity**  
**Déclaration de Conformité UE**

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:  
that the product:  
que le produit:

typ(en), type(s), type(s):  
6001/1..  
6001/2..  
6001/5..

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.

<table>
<thead>
<tr>
<th>Richtlinie(n) / Directive(s) / Directive(s)</th>
<th>Norm(en) / Standard(s) / Norme(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/34/EU ATEX-Richtlinie</td>
<td>EN IEC 60079-0:2018</td>
</tr>
<tr>
<td>2014/34/UE Directive ATEX</td>
<td>EN IEC 60079-7:2018</td>
</tr>
<tr>
<td></td>
<td>EN 60079-31:2014</td>
</tr>
</tbody>
</table>
| EU-Baumusterprüfbescheinigung:  
EU Type Examination Certificate:  
Attestation d'examen UE de type:    | PTB 13 ATEX 2004                 |
|                                          | (Physikalisch-Technische Bundesanstalt,  |
|                                          | Bundesallee 100, 38116 Braunschweig, Germany) |
| Produktnormen nach Niederspannungsrichtlinie:  
Product standards according to Low Voltage Directive:  
|                                          | EN 62471:2008                    |
| 2014/30/EU EMC Directive                 | EN 61547:2009                    |
| 2014/30/UE Directive CEM                 | EN 61000-3-2:2014                |
| 2011/65/EU RoHS-Richtlinie               | EN 61000-3-3:2013                |
| 2011/65/EU RoHS Directive                |                                         |

Waldenburg, 2020-05-05  
Ort und Datum  
Place and date  
Lieu et date

i.V.  
Dr. A. Kaufmann  
Senior Vice President Marketing & Innovation  
Vice-Président directeur Marketing & Innovation

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J. Freimüller  
Vice President global Quality Management  
Vice-Président globale Gestion de Qualité