Universal spotlight LED

Series 6050/6
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1 General Information

1.1 Manufacturer

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Internet: r-stahl.com
E-mail: info@stahl.de

1.2 Information regarding the operating instructions

ID-No.: 264820 / 6050628300
Publication Code: 2019-04-03·BA00·III·en·02

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>⚠️</td>
<td>General danger</td>
</tr>
<tr>
<td>⚠️ EX</td>
<td>Danger due to explosive atmosphere</td>
</tr>
<tr>
<td>⚠️</td>
<td>Danger due to energised parts</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>
</table>
| ⚠️     | Danger to persons
Non-compliance with the instruction results in severe or fatal injuries to persons. |
| ⚠️     | Danger to persons
Non-compliance with the instruction can result in severe or fatal injuries to persons. |
| ⚠️     | Danger to persons
Non-compliance with the instruction can result in light injuries to persons. |
| 🔄️     | 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><img src="image" alt="CE symbol" /></td>
<td>CE marking according to the currently applicable directive.</td>
</tr>
<tr>
<td><img src="image" alt="Ex symbol" /></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 luminaire 6050/6 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 luminaire 6050/6 is used as equipment for lighting areas, work equipment and objects.
It can be used indoors and outdoors.
The luminaire is approved for use in hazardous areas of Zones 1, 2, 21 and 22.

Mode of operation
The luminaire can be dimmed and switched via a DALI interface (optional).
4.2 Device design

1. Thread for M8 ring bolts
2. Fastening clip for direct fastening with screws
3. Terminal block
4. Connection box
5. External earth connection
6. Cable entry
7. Holder for pivoting bracket
8. Glass

5 Technical data

Explosion Protection

Global (IECEx)
- Gas and dust
  - IECEx EPS 17.0093
  - Ex db eb op is IIC T.¹) Gb
  - Ex tb op is IIIC T...°C¹) Db

Europe (ATEX)
- Gas and dust
  - EPS 17 ATEX 1 181
  - II 2 G Ex db eb op is IIC T.¹) Gb
  - II 2 D Ex tb op is IIIC T...°C¹) Db

<table>
<thead>
<tr>
<th>Variant</th>
<th>Temperature class</th>
<th>Max. surface temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>6050/604-...-...-...-...-...</td>
<td>T4</td>
<td>110 °C</td>
</tr>
<tr>
<td>6050/606-...-...-...-...-...</td>
<td>T6</td>
<td>80 °C</td>
</tr>
</tbody>
</table>

Certifications and certificates
- Certificates: IECEx, ATEX, EAC (TR)
### Technical Data

#### Electrical Data

<table>
<thead>
<tr>
<th>Power</th>
<th>DALI function</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 W</td>
<td>without</td>
<td>220 to 240 V AC, 50/60 Hz</td>
</tr>
<tr>
<td>40 W/60 W</td>
<td>without</td>
<td>120 to 277 V AC, 50/60 Hz</td>
</tr>
<tr>
<td>40 W/60 W/80 W</td>
<td>with</td>
<td>220 to 240 V AC, 50/60 Hz</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power</th>
<th>DALI function</th>
<th>Start-up current</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 W</td>
<td>without</td>
<td>$I_{\text{peak}} = \leq 25 \text{ A}; \Delta t = 150 \mu s$</td>
</tr>
<tr>
<td>40 W/60 W</td>
<td>without</td>
<td>$I_{\text{peak}} = 55 \text{ A}; \Delta t = 230 \mu s$</td>
</tr>
<tr>
<td>40 W/60 W/80 W</td>
<td>with</td>
<td>$I_{\text{peak}} = 57 \text{ A}; \Delta t = 210 \mu s$</td>
</tr>
</tbody>
</table>

Maximum number of luminaires per miniature circuit breaker at 230 V:

<table>
<thead>
<tr>
<th>Power</th>
<th>Type</th>
<th>10 A</th>
<th>16 A</th>
<th>20 A</th>
<th>25 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 W</td>
<td>B</td>
<td>23</td>
<td>36</td>
<td>45</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>39</td>
<td>61</td>
<td>76</td>
<td>96</td>
</tr>
<tr>
<td>40 W/60 W</td>
<td>B</td>
<td>7</td>
<td>11</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>11</td>
<td>18</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>DALI</td>
<td>B</td>
<td>7</td>
<td>12</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>40 W/60 W/80 W</td>
<td>C</td>
<td>11</td>
<td>19</td>
<td>23</td>
<td>32</td>
</tr>
</tbody>
</table>

Power factor $\cos \varphi \geq 0.9$

Service life LED

<table>
<thead>
<tr>
<th>Ambient temperature $T_a$</th>
<th>$\geq +25 , ^\circ \text{C}$</th>
<th>$\geq +45 , ^\circ \text{C}$</th>
<th>$\geq +60 , ^\circ \text{C}$</th>
<th>$\geq +70 , ^\circ \text{C}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$L_{90B_{50}}$</td>
<td>80,000 h</td>
<td>50,000 h</td>
<td>50,000 h</td>
<td>25,000 h</td>
</tr>
<tr>
<td>$L_xB_y$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At the end of the service life:

- Luminous flux decreases by "x" percent.
- Up to "y" percent of all luminaires fall below "x"
## Technical Data

### Luminous characteristics

#### Neutral white

Colour rendering [Ra] = ≥ 80  
Colour temperature [K] = 5000

<table>
<thead>
<tr>
<th>Version</th>
<th>20 W</th>
<th>40 W</th>
<th>60 W</th>
<th>80 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption [W]</td>
<td>16.4</td>
<td>40.1</td>
<td>60.3</td>
<td>77.7</td>
</tr>
</tbody>
</table>

**Clear glass**

| Luminous flux [lm] | 2,015 | 5,077 | 7,357 | 8,772 |
| Luminaire efficacy [lm/W] | 122.9 | 126.6 | 122.0 | 112.8 |

**Matted glass**

| Luminous flux [lm] | 1,866 | 4,698 | 6,802 | 8,110 |
| Luminaire efficacy [lm/W] | 113.8 | 117.1 | 112.8 | 104.4 |

#### Warm white

Colour rendering [Ra] = ≥ 80  
Colour temperature [K] = 4000

<table>
<thead>
<tr>
<th>Version</th>
<th>20 W</th>
<th>40 W</th>
<th>60 W</th>
<th>80 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption [W]</td>
<td>16.4</td>
<td>40.1</td>
<td>60.3</td>
<td>77.7</td>
</tr>
</tbody>
</table>

**Clear glass**

| Luminous flux [lm] | 1,955 | 4,925 | 7,136 | 8,508 |
| Luminaire efficacy [lm/W] | 119.2 | 122.8 | 118.3 | 109.5 |

**Matted glass**

| Luminous flux [lm] | 1,810 | 4,557 | 6,598 | 8,110 |
| Luminaire efficacy [lm/W] | 110.4 | 113.6 | 109.4 | 101.2 |

#### Daylight white

Colour rendering [Ra] = ≥ 80  
Colour temperature [K] = 6500

<table>
<thead>
<tr>
<th>Version</th>
<th>20 W</th>
<th>40 W</th>
<th>60 W</th>
<th>80 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption [W]</td>
<td>16.4</td>
<td>40.1</td>
<td>60.3</td>
<td>77.7</td>
</tr>
</tbody>
</table>

**Clear glass**

| Luminous flux [lm] | 1,955 | 4,925 | 7,136 | 8,508 |
| Luminaire efficacy [lm/W] | 119.2 | 122.8 | 118.3 | 109.5 |

**Matted glass**

| Luminous flux [lm] | 1,810 | 4,557 | 6,598 | 8,110 |
| Luminaire efficacy [lm/W] | 110.4 | 113.6 | 109.4 | 101.2 |

Values apply to $T_a = +25 \, ^\circ C$.  

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*STAHLE Universal spotlight LED  
Series 6050/6*
## Technical Data

### Luminous flux decrease

#### At ambient temperature

**Variants without DALI function:**

![Graph showing luminous flux decrease at ambient temperature for variants without DALI function.](image)

**Variants with DALI function:**

![Graph showing luminous flux decrease at ambient temperature for variants with DALI function.](image)

### Ambient conditions

<table>
<thead>
<tr>
<th>Ambient temperature</th>
<th>Variant</th>
<th>DALI function</th>
<th>Temperature class</th>
<th>Ambient temperature</th>
</tr>
</thead>
</table>
| Storage temperature | -40 to +70 °C
| 6050/604−−−−−−−−−− with | T4 | -40 to +70 °C |
| 6050/604−−−−−−−−−− without | T4 | -40 to +60 °C |
| 6050/606−−−−−−−−−− without | T6 | -40 to +50 °C |
## Technical Data

### Mechanical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of protection</td>
<td>IP66; IP68 (10 m immersion depth 30 min) (IEC 60598)</td>
</tr>
<tr>
<td>Protection class</td>
<td>I (internal + external PE / PA connection)</td>
</tr>
<tr>
<td>Enclosure material</td>
<td>Light metal</td>
</tr>
<tr>
<td>Protective glass</td>
<td>Temperature-resistant pressed glass</td>
</tr>
<tr>
<td>Cover seal</td>
<td>Silicon</td>
</tr>
<tr>
<td>Internal reflector</td>
<td>Aluminium</td>
</tr>
<tr>
<td>External reflector</td>
<td>Highest grade aluminium</td>
</tr>
<tr>
<td>Wire guard</td>
<td>Steel wire (stainless steel)</td>
</tr>
<tr>
<td>Enclosure lock</td>
<td>Secured with an M3 screw (Torx TX) in the connection box</td>
</tr>
</tbody>
</table>

### Mounting / Installation

| Position of normal use    | any                                                                          |
| Cable entry               |                                                                             |
| Standard                  | 2 x M25 x 1.5; 1 x cable entry Ø 7 to 17 mm, 1 x stopping plug               |
| Special                   | 2 x M20 x 1.5; 1 x cable entry Ø 6 to 13 mm, 1 x stopping plug               |
| Connection option         | Spring clamp terminals                                                       |
| Standard                  | 5-pole: L1, L2, L3, N, PE                                                   |
| With DALI                  | 7-pole: L1, L2, L3, N, PE, D1, D2                                           |
|                           | 1 x 0.2 to 6 mm² (solid)                                                     |
|                           | 1 x 0.2 to 4 mm² (finely stranded)                                          |
|                           | 1 x 0.25 to 6 mm² (finely stranded with core end sleeve)                    |
|                           | (2 free clamping units per pole available)                                  |

#### Mounting

- **Direct:** By means of two integrated fastening clips on the enclosure for screws with a max. diameter of 10 mm
- **Suspended:** By means of two M8 ring bolts (accessories) installed in the integrated threads in the enclosure or by means of the single-point fastening (accessories) installed in the integrated threads in the cover
- **Pivoting:** By means of the mounting bracket (accessories) installed on the integrated holder on the enclosure
- **On the pipe:** By means of the pipe assembly kit (accessories) directly on a pipe Ø 1 1/4" to 2"

| Wire guard and antiglare device | can easily be mounted later using an M6 mounting screw                      |

### Optional

**DALI-connection** | DALI interface in accordance with IEC 62386-207:2009-08

For further technical data, see r-stahl.com.
6 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.

7.1 Dimensions / fastening dimensions

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

- without wire guard
- with wire guard
- with ring eyes
Dimensional drawings (all dimensions in mm [inches]) – Subject to modification

- **with antiglare device**
- **with bracket**
- **with single-point fastening**
- **with pipe assembly kit**

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**Mounting and installation**

Universal spotlight LED

Series 6050/6

STAHL

2019-04-03 BA00 III en 02

264820 / 6050628300
7.2 Mounting / dismounting, operating position

7.2.1 Wire Guard Assembly

- Insert the wire guard into the intended slots (1) of the light fitting.
- Tighten the screws (2). The wire guard is installed.

7.2.2 Assembly of the External Reflector

- Attach the external reflector to the light fitting as shown on the drawing.
- Insert the screws (1) included in delivery and tighten them. The external reflector is installed.
7.2.3 Assembly of the Holding Bracket

- Place the locking plate (1) against the holder for the pivoting bracket.
- Set the bracket (4) on the locking plate (1).
- Fasten the bracket (4) using the split washer (2) and screw (3).

7.2.4 Ring Bolt Assembly

- Screw the ring bolts into the intended threaded inserts. The ring bolts can be used to suspend the light fitting.
### 7.2.5 Mounting the single-point fastening

- Mount the assembly kit to the luminaire with the enclosed hexagon screw.

### 7.2.6 Mounting the pipe fastening

- Mount the lower clamp with the enclosed hexagon screws.
- Fit the luminaire to the pipe by means of the upper clamp and the two enclosed nuts.
7.3 Installation

**DANGER**
Explosion hazard due to opening the enclosure cover!
Non-compliance results in severe or fatal injuries.
- It is prohibited to open the enclosure cover of the luminaire.

### 7.3.1 Electrical connections

**DANGER**
Explosion hazard due to faulty installation!
Non-compliance results in severe or fatal injuries.
- Only use conductor provided by the manufacturer for explosive areas.
- Make sure that the IP protection is preserved after installation.
- Comply with the relevant conductor cross-section:
  - 0.2 to 6 mm² (solid)
  - 0.2 to 4 mm² (finely-stranded)
  - 0.2 to 6 mm² (finely stranded with core end sleeve)

- Loosen the M6 Torx screws (1) and remove the cover.
- Loosen cable entry (2) (unscrew approx. 3 rotations).
- Insert cable into the terminal box from the outside through the cable entry.
- Strip approximately 10 mm of the cable using an appropriate tool.
- Unlock the screwless terminals (3) using a screwdriver and insert the cable. Make sure that the conductor insulation is not inserted into the terminal.
- Lock cable entry firmly by tightening completely.
- Re-attach the cover and close it using the respective screws. The light fitting is now operational.
7.3.2 Cable entries
The luminaire 6050/6 is equipped with 2 entries, a cable entry and a stopping plug. The electrical connection into the EX d chamber is implemented with a hermetically sealed M 16 x 1.5 conductor bushing size.

To install additional permitted screw connections, proceed as follows:

- Insert cable entry into the terminal box and tighten with a locknut from the inside (torque: metal cable gland 3 Nm, plastic screw connection 2 Nm).
- Tighten the cable entry and pressure screw of the cable entry after installation.
- Use a certified stopping plug to seal the opening that is not used.

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.

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 all conductors have been clamped 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.
9 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.

### WARNING

Risk of burns due to hot surfaces! Non-compliance can result in severe injuries and material damage.
- Allow the housing, the protective glass and the lamp cool down for approx. 15 min before touching them.

#### 9.1 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.

### CAUTION

Danger of electric shock due to energised parts! Non-compliance can result in minor injuries!
- All connections must be disconnected from the power supply.
- Secure the connections against unauthorized switching.

### WARNING

Risk of burns due to hot surfaces!
Non-compliance can result in severe injuries and material damage.
- Allow the housing, the protective glass and the lamp cool down for approx. 15 min before touching them.

### CAUTION

Danger of electric shock due to energised parts!
Non-compliance can result in minor injuries!
- All connections must be disconnected from the power supply.
- Secure the connections against unauthorized switching.

### WARNING

Risk of burns due to hot surfaces!
Non-compliance can result in severe injuries and material damage.
- Allow the housing, the protective glass and the lamp cool down for approx. 15 min before touching them.

### CAUTION

Danger of electric shock due to energised parts!
Non-compliance can result in minor injuries!
- All connections must be disconnected from the power supply.
- Secure the connections against unauthorized switching.

### WARNING

Risk of burns due to hot surfaces!
Non-compliance can result in severe injuries and material damage.
- Allow the housing, the protective glass and the lamp cool down for approx. 15 min before touching them.

At a minimum, check the following points during maintenance work on the device:
- Proper function of glass dome and housing,
- Condition of the connection lines,
- Connection of the protective conductor and equipotential bonding,
- Proper function and secure fit of cable entries,
- Seals within the cable entries,
- Cleanliness and proper function of the housing interiors (Ex d and Ex e),
- Secure fit of the holding bracket mounting screws,
- Good visual condition of the flameproof joint (dirt or damage)
- Comply with the permissible temperatures (according to EN 60079),
- Intended use and function.
9.2 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.

9.3 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).

10 Cleaning

DANGER
Explosion hazard due to damaged joints when cleaning!
Non-compliance results in severe or fatal injuries.
- Only treat corroded joints with high-quality, chemical cleaning agents (e.g. with Esso reducing oils, type Vassol or similar products).
- Do not use any abrasives or wire brushes for cleaning.
- Do not apply any colour.

- Clean the flameproof joints regularly with an acid-free grease that is compatible with aluminium.
11 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.

12 Accessories and Spare parts

**NOTICE**
Malfunction or damage to the device due to the use of non-original components. Non-compliance can result in material damage.
- Use only original accessories and spare parts from R. STAHL Schaltgeräte GmbH.

For accessories and spare parts, see data sheet on our homepage r-stahl.com.
R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany

erklärt in alleiniger Verantwortung, declares in its sole responsibility, declare sous sa seule responsabilité,

that the product: Universalstrahler LED
que le produit: Projecteur universel LED

typ(en), type(s), type(s): 6050/6

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>
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<td>EN 60079-28:2015</td>
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<td>EN 60079-31:2014</td>
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Kennzeichnung, marking, marquage:

II 2 G Ex db eb op is IIC T4/T6 Gb / 0158
II 2 D Ex tb op is IIIC T110°C/T80°C Db

EU-Baumusterprüfbescheinigung:
EU Type Examination Certificate:
Attestation d'examen UE de type:
EPS 17 ATEX 1181
(Bureau Veritas Consumer Produkt Services GmbH,
Businesspark A96, 86842 Türkheim, Germany)

Produktnormen nach Niederspannungsrichtlinie:
Product standards according to Low Voltage Directive:
Normes des produit pour la Directive Basse Tension:

| 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                 |

Waldenburg, 2018-05-30

Ort und Datum
Place and date
Lieu et date

Dr. A. Kaufmann
Leiter BU Leuchten & Signalgeräte
Head of BU Lightings & Signalling
Directeur BU Eclairage & Appareils de signalisation

J. Freimüller
Leiter Qualitätsmanagement
Director Quality Management
Directeur Assurance de Qualité