



# Floodlight

Series 6521/4



## Contents

|      |  |    |
|------|--|----|
| 1    | General Information .....                              | 2  |
| 1.1  | Manufacturer .....                                     | 2  |
| 1.2  | Information regarding the operating instructions ..... | 3  |
| 1.3  | Conformity with standards and regulations .....        | 3  |
| 2    | Explanation of the symbols .....                       | 3  |
| 2.1  | Symbols in these operating instructions .....          | 3  |
| 2.2  | Warning notes .....                                    | 4  |
| 2.3  | Symbols on the device .....                            | 4  |
| 3    | Safety notes .....                                     | 4  |
| 3.1  | Operating instructions storage .....                   | 4  |
| 3.2  | Safe use .....   | 4  |
| 3.3  | Intended Use .....                                     | 5  |
| 3.4  | Modifications and alterations .....                    | 5  |
| 4    | Function and device design .....                       | 5  |
| 4.1  | Function .....   | 5  |
| 4.2  | Device design .....                                    | 6  |
| 5    | Technical data .....                                   | 7  |
| 6    | Transport and storage .....                            | 11 |
| 6.1  | General .....  | 11 |
| 7    | Mounting and installation .....                        | 12 |
| 7.1  | Dimensions / fastening dimensions .....                | 12 |
| 7.2  | Mounting / dismounting, operating position .....       | 13 |
| 7.3  | Installation .....                                     | 14 |
| 8    | Commissioning .....                                    | 15 |
| 9    | Operation .....  | 16 |
| 9.1  | Troubleshooting .....                                  | 16 |
| 10   | Maintenance and repair .....                           | 17 |
| 10.1 | Maintenance .....                                      | 17 |
| 10.2 | Repair .....   | 20 |
| 10.3 | Returning the device .....                             | 20 |
| 11   | Disposal .....   | 21 |
| 12   | Accessories and Spare parts .....                      | 21 |

## 1 General Information

### 1.1 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](http://www.stahl-ex.com)  
E-mail: [info@stahl.de](mailto:info@stahl.de)

R. STAHL (P) LTD., Plot No. - 5  
Malrosapuram Road, Sengundram Indl. Area  
Singaperumal Koil, Kancheepuram Dist.,  
Tamil Nadu 603 204, INDIA

Phone: +91 44-30 600 600  
Fax: +91 44-30 600 700  
Internet: [www.rstahl.net](http://www.rstahl.net)  
E-mail: [sales@rstahl.net](mailto:sales@rstahl.net)

## 1.2 Information regarding the operating instructions

ID-No.: 250341 / 6521615300  
 Publication Code: 2015-12-04-BA00-III-de-00





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

## 1.3 Conformity with standards and regulations




See certificates and EC Declaration of Conformity: [www.stahl-ex.com](http://www.stahl-ex.com).  
 The device has IECEx approval. See IECEx homepage: <http://iecex.iec.ch/>  
 Further national certificates can be downloaded via the following link:  
<http://www.r-stahl.com/downloads/certificates.html>.

## 2 Explanation of the symbols

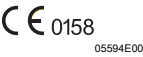

### 2.1 Symbols in these operating instructions

| Symbol  | Meaning   |
|---|---|
|    | Tips and recommendations on the use of the device |
|  | General danger                                    |
|  | Danger due to explosive atmosphere                |
|  | Danger due to energised parts                     |

## 2.2 Warning notes

|   |   |
|---|---|
|    | <b>DANGER</b>   |
|   | Danger to persons<br>Non-compliance with the instruction results in severe or fatal injuries to persons.    |
|    | <b>WARNING</b>  |
|   | Danger to persons<br>Non-compliance with the instruction can result in severe or fatal injuries to persons. |
|    | <b>CAUTION</b>  |
|   | Danger to persons<br>Non-compliance with the instruction can result in light injuries to persons.           |
| <b>NOTICE</b>   |   |
| Avoiding material damage<br>Non-compliance with the instruction can result in material damage to the device and / or its environment. |   |

## 2.3 Symbols on the device

| Symbol  | Meaning   |
|---|---|
|  | CE marking according to the currently applicable directive. |
|  | According to marking, device approved for hazardous areas.  |

## 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

- Read and observe the safety notes in these operating instructions!
- Observe characteristic values and rated operating conditions on the rating and data plates!
- Observe additional information plates on the device!
- Use the device in accordance with its intended and approved purpose only!
- We cannot be held liable for damage caused by incorrect or unauthorized use or by non-compliance with these operating instructions.
- Before installation and commissioning, make sure that the device is not damaged!
- Work on the device (installation, maintenance, overhaul, repair) may only be carried out by appropriately authorized and trained personnel.



### 3.3 Intended Use

The luminaire is equipment


The floodlight 6521 is equipment

- for lighting areas, work spaces and objects
- can be used indoors and outdoors
- for stationary mounting
- for use in Zones 21, 2, 22 and in the safe area
- for use in the safe area

### 3.4 Modifications and alterations

|   |  |
|---|--|
|  | <b>DANGER</b>  |
|   | <p>Explosion hazard due to modifications and alterations to the device!<br/>Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Do not modify or alter the device.</li> </ul> |
|  | <p>No liability or warranty for damage resulting from modifications and alterations.</p>   |

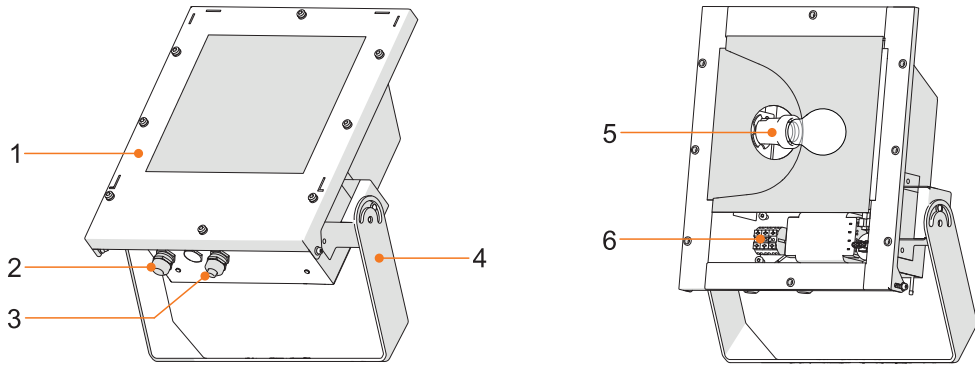
## 4 Function and device design

|   |  |
|---|--|
|  | <b>DANGER</b>  |
|   | <p>Explosion hazard due to improper use!<br/>Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Use the device only in accordance with the operating conditions described in these operating instructions.</li> <li>• Use the device only for the intended purpose specified in these operating instructions.</li> </ul> |

### 4.1 Function

- for lighting areas, work spaces and objects

## 4.2 Device design



17215E00

1 - Lamp enclosure

2 - Cable gland

3 - Opening for restricted breathing test

4 - Mounting bracket

5 - Lamp holder

6 - Connection terminal

## 5 Technical data

### Explosion Protection

#### Global (IECEX)

|              |  |
|--------------|--|
| Gas and dust | IECEX TUR 10.0014<br>Ex nRc IIC T <sup>1)</sup><br>Ex tb IIIC T <sup>1)</sup> IP66 |
|--------------|--|

#### Europe (ATEX)

|      |   |
|------|---|
| Gas  | TÜV 11 ATEX 7008<br>⊕ II 3 G Ex nRc IIC T <sup>1)</sup>         |
| Dust | TÜV 10 ATEX 7875<br>⊕ II 2 D Ex tb IIIC T <sup>1)</sup> °C IP66 |
|      | <sup>1)</sup> See selection table                               |

#### Certifications and certificates

|              |                           |
|--------------|---------------------------|
| Certificates | IECEX, ATEX, India (PESO) |
|--------------|---------------------------|

| Type    | Lamp      | Power    | Temperature class at T <sub>a</sub> = |       | T <sub>o max</sub> at T <sub>a</sub> = |        |
|---------|-----------|----------|---------------------------------------|-------|--|--------|
|         |           |          | 40 °C                                 | 50 °C | 40 °C                                  | 50 °C  |
| 6521/41 | QT        | ≤ 150 W  | T3                                    | T3    | 156 °C                                 | 166 °C |
|         | QT        | ≤ 250 W  | T2                                    | T2    | 202 °C                                 | 222 °C |
|         | HIT / HST | ≤ 70 W   | T4                                    | T3    | 121 °C                                 | 131 °C |
|         | HIT       | ≤ 100 W  | T3                                    | T3    | 140 °C                                 | 150 °C |
|         | HIT       | ≤ 150 W  | T3                                    | -     | 165 °C                                 | -      |
| 6521/42 | QT        | ≤ 500 W  | T3                                    | T3    | 180 °C                                 | 190 °C |
|         | HST       | ≤ 150 W  | T4                                    | T3    | 130 °C                                 | 140 °C |
|         | HIT / HST | ≤ 250 W  | T3                                    | T3    | 156 °C                                 | 166 °C |
| 6521/43 | QT        | ≤ 500 W  | T3                                    | T3    | 147 °C                                 | 157 °C |
|         | QT        | ≤ 1000 W | T2                                    | T2    | 230 °C                                 | 240 °C |
|         | HIT / HST | ≤ 250 W  | T4                                    | T3    | 125 °C                                 | 135 °C |
|         | HIT / HST | ≤ 400 W  | T3                                    | T3    | 160 °C                                 | 170 °C |
|         | HST       | ≤ 600 W  | T3                                    | T2    | 190 °C                                 | 200 °C |

|     |                            |
|-----|----------------------------|
| QT  | Haloge lamps               |
| HIT | Metal halide lamps         |
| HST | High-pressure sodium lamps |

**Technical Data**

Electrical data

Rated operational voltage

**220 ... 240 V AC / DC ±6%; 0, 50, 60 Hz**

| Power  | Type |                         |                | Power factor |
|--------|------|-------------------------|----------------|--------------|
|        |      | Rated operating current | Inrush current |              |
| 500 W  | QT   | 2.17 A                  | 2.17 A         | 1            |
| 1000 W | QT   | 4.35 A                  | 4.35 A         | 1            |

**230 V AC ±6%; 50 Hz**

| Power | Type      | compensated             |                |              | uncompensated           |                |              |
|-------|-----------|-------------------------|----------------|--------------|-------------------------|----------------|--------------|
|       |           | Rated operating current | Inrush current | Power factor | Rated operating current | Inrush current | Power factor |
| 70 W  | HST / HIT | 0.38 A                  | 0.50 A         | 0.96         | 1.00 A                  | 1.30 A         | 0.37         |
| 100 W | HST / HIT | 0.56 A                  | 0.80 A         | 0.90         | 1.20 A                  | 1.70 A         | 0.41         |
| 150 W | HST / HIT | 0.79 A                  | 1.50 A         | 0.95         | 1.80 A                  | 2.70 A         | 0.40         |
| 250 W | HST / HIT | 1.30 A                  | 2.00 A         | 0.92         | 3.00 A                  | 4.20 A         | 0.40         |
| 400 W | HST / HIT | 2.10 A                  | 2.50 A         | 0.91         | 4.45 A                  | 6.00 A         | 0.43         |
| 600 W | HST       | 2.95 A                  | 3.80 A         | 0.92         | 6.20 A                  | 8.50 A         | 0.44         |

**240 V AC ±6%; 50 Hz**

| Power | Type      | compensated             |                |              | uncompensated           |                |              |
|-------|-----------|-------------------------|----------------|--------------|-------------------------|----------------|--------------|
|       |           | Rated operating current | Inrush current | Power factor | Rated operating current | Inrush current | Power factor |
| 70 W  | HST / HIT | 0.36 A                  | 0.50 A         | 0.97         | 1.00 A                  | 1.30 A         | 0.37         |
| 100 W | HST / HIT | 0.53 A                  | 0.80 A         | 0.91         | 1.20 A                  | 1.70 A         | 0.41         |
| 150 W | HST / HIT | 0.76 A                  | 1.50 A         | 0.96         | 1.80 A                  | 2.70 A         | 0.40         |
| 250 W | HST / HIT | 1.23 A                  | 2.00 A         | 0.94         | 3.00 A                  | 4.20 A         | 0.40         |
| 400 W | HST / HIT | 2.00 A                  | 2.50 A         | 0.92         | 4.45 A                  | 6.00 A         | 0.43         |
| 600 W | HST       | 2.80 A                  | 3.80 A         | 0.93         | 6.20 A                  | 8.50 A         | 0.44         |



Technical Data

**208 V AC ±6%; 60 Hz**

| Power | Type      | compensated             |                |              | uncompensated           |                |              |
|-------|-----------|-------------------------|----------------|--------------|-------------------------|----------------|--------------|
|       |           | Rated operating current | Inrush current | Power factor | Rated operating current | Inrush current | Power factor |
| 70 W  | HST / HIT | 0.39 A                  | 0.50 A         | 0.92         | 1.00 A                  | 1.30 A         | 0.37         |
| 150 W | HST / HIT | 0.80 A                  | 1.50 A         | 0.94         | 1.80 A                  | 2.70 A         | 0.42         |
| 400 W | HIT       | 1.90 A                  | 2.50 A         | 0.97         | 4.20 A                  | 5.80 A         | 0.44         |
| 400 W | HST       | 2.30 A                  | 2.80 A         | 0.96         | 4.45 A                  | 6.00 A         | 0.44         |

**220 V AC ±6%; 60 Hz**

| Power | Type      | compensated             |                |              | uncompensated           |                |              |
|-------|-----------|-------------------------|----------------|--------------|-------------------------|----------------|--------------|
|       |           | Rated operating current | Inrush current | Power factor | Rated operating current | Inrush current | Power factor |
| 70 W  | HST / HIT | 0.36 A                  | 0.50 A         | 0.95         | 1.00 A                  | 1.30 A         | 0.37         |
| 100 W | HST / HIT | 0.62 A                  | 0.80 A         | 0.91         | 1.20 A                  | 1.70 A         | 0.44         |
| 150 W | HST / HIT | 0.75 A                  | 1.50 A         | 0.96         | 1.80 A                  | 2.70 A         | 0.42         |
| 250 W | HST / HIT | 1.50 A                  | 2.00 A         | 0.90         | 3.00 A                  | 4.20 A         | 0.40         |
| 400 W | HIT       | 1.80 A                  | 2.40 A         | 0.98         | 4.20 A                  | 5.80 A         | 0.44         |
| 400 W | HST       | 2.20 A                  | 2.70 A         | 0.98         | 4.45 A                  | 6.00 A         | 0.44         |
| 600 W | HST       | 2.95 A                  | 3.80 A         | 0.96         | 6.20 A                  | 8.50 A         | 0.46         |

**240 V AC ±6%; 60 Hz**

| Power | Type      | compensated             |                |              | uncompensated           |                |              |
|-------|-----------|-------------------------|----------------|--------------|-------------------------|----------------|--------------|
|       |           | Rated operating current | Inrush current | Power factor | Rated operating current | Inrush current | Power factor |
| 70 W  | HST / HIT | 0.33 A                  | 0.50 A         | 0.97         | 1.00 A                  | 1.30 A         | 0.37         |
| 100 W | HST / HIT | 0.58 A                  | 0.80 A         | 0.93         | 1.20 A                  | 1.70 A         | 0.44         |
| 150 W | HST / HIT | 0.68 A                  | 1.50 A         | 0.97         | 1.80 A                  | 2.70 A         | 0.42         |
| 250 W | HST / HIT | 1.35 A                  | 2.00 A         | 0.91         | 3.00 A                  | 4.20 A         | 0.40         |
| 400 W | HIT       | 1.60 A                  | 2.30 A         | 0.97         | 4.20 A                  | 5.80 A         | 0.44         |
| 400 W | HST       | 2.00 A                  | 2.60 A         | 0.98         | 4.45 A                  | 6.00 A         | 0.44         |

**Technical Data**

Inrush current

maximum number of light fittings per miniature circuit breaker:

|      |       |        | compensated |       |       |       |       |       |
|------|-------|--------|-------------|-------|-------|-------|-------|-------|
| Type | QT    | QT     | HIT / HST   |       |       |       |       | HST   |
|      | 500 W | 1000 W | 70 W        | 100 W | 150 W | 250 W | 400 W | 600 W |
| B10A | 4     | 2      | 8           | 7     | 5     | 3     | 2     | 1     |
| B16A | 7     | 3      | 13          | 11    | 8     | 5     | 3     | 2     |
| B20A | 9     | 4      | 16          | 14    | 10    | 6     | 4     | 2     |
| B25A | 11    | 5      | 20          | 17    | 12    | 8     | 5     | 3     |
| C10A | 4     | 2      | 12          | 10    | 7     | 5     | 3     | 2     |
| C16A | 7     | 3      | 18          | 16    | 11    | 7     | 4     | 2     |
| C20A | 9     | 4      | 13          | 20    | 14    | 9     | 5     | 3     |
| C25A | 11    | 5      | 29          | 25    | 17    | 11    | 7     | 4     |

| uncompensated |           |       |       |       |       |       |
|---------------|-----------|-------|-------|-------|-------|-------|
| Type          | HIT / HST |       |       |       |       | HST   |
|               | 70 W      | 100 W | 150 W | 250 W | 400 W | 600 W |
| B10A          | 5         | 4     | 2     | 1     | 1     | --    |
| B16A          | 8         | 6     | 4     | 2     | 1     | 1     |
| B20A          | 9         | 8     | 5     | 3     | 2     | 2     |
| B25A          | 12        | 10    | 6     | 4     | 2     | 2     |
| C10A          | 7         | 6     | 4     | 2     | 1     | 1     |
| C16A          | 11        | 9     | 6     | 3     | 2     | 1     |
| C20A          | 14        | 11    | 7     | 4     | 3     | 2     |
| C25A          | 17        | 14    | 9     | 5     | 4     | 2     |

Ambient conditions

Ambient temperature -40 ... +40 °C / +50 °C (observe the temperature class)  
 -50 ... +40 °C / +50 °C (QT lamps, observe the temperature class)

Mechanical data

Degree of protection IP66 to EN 60598  
 Protection class I (with internal / external PE connection)  
 Material  
 Enclosure  
 6521/4...-...-1-...-... Sheet steel powder coated RAL 7032 (pebble-grey)  
 6521/4...-...-3-...-... Stainless steel 1.4301 (V2A)  
 6521/4...-...-4-...-... Stainless steel 1.4404 (V4A)  
 Window Safety glass; resistant to thermal shocks  
 Seal Silicone  
 Reflector Aluminium, anodised  
 Enclosure lock Pan head screw, M6, stainless steel  
 Hinged enclosure cover

**Technical Data****Mounting / Installation**


|                    |  |
|--------------------|--|
| Operating position | Horizontal lamp axis   |
| Cable entry        |  |
| Standard           | 1 x M20 x 1.5 cable gland, clamping area $\varnothing$ 4 ... 13 mm<br>1 x M20 x 1.5 stopping plug<br>1 x M20 x 1.5 cable entry (with blind plugs - as test holes)  |
| Special            | specific customer order possible   |
| Connection option  | Spring clamp terminals, 2 clamping positions<br><b>Standard:</b><br>L1 + N + PE, for 0.5 ... 4 mm <sup>2</sup> single-wire and finely stranded<br><b>Optional:</b><br>L1 + N + PE, for 0.5 ... 6 mm <sup>2</sup> single-wire and finely stranded |
| Mounting           | U-shaped holding bracket made of stainless steel, continuously swivelable around the rotary axis of the flood lights.  |

## 6 Transport and storage

### 6.1 General

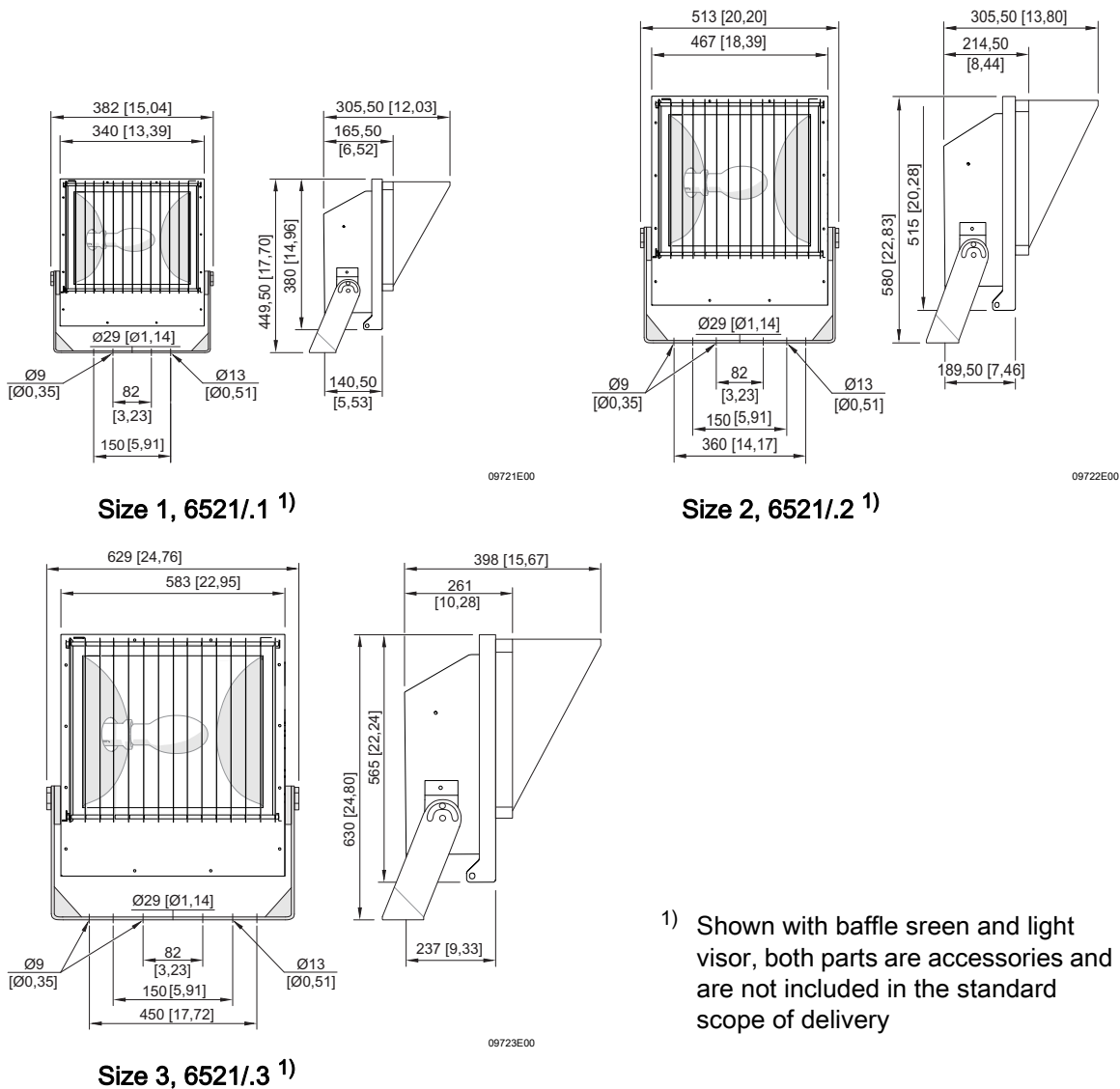
- Transport and store the device only in the original packaging.
- Store the device in a dry place (no condensation) and vibration-free.
- Do not drop the device.

## 7 Mounting and installation

|   |   |
|---|---|
|  | DANGER  |
|   | <p>Explosion hazard due to incorrect installation of the device!<br/>                 Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Carry out installation strictly according to the instructions and national safety and accident prevention regulations to maintain the explosion protection.</li> <li>• 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).</li> <li>• The device must only be be installed by trained qualified personnel who is familiar with the relevant standards.</li> </ul> |

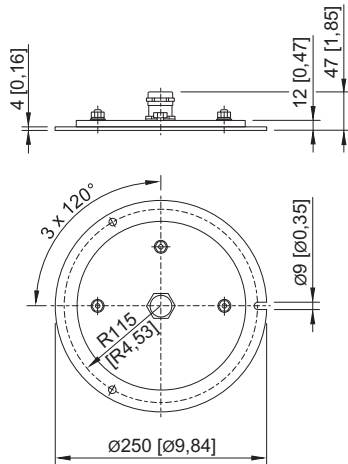
### 7.1 Dimensions / fastening dimensions

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

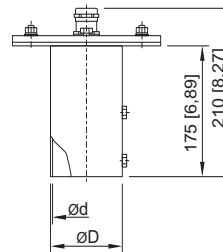


1) Shown with baffle screen and light visor, both parts are accessories and are not included in the standard scope of delivery

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



09725E00



09724E00

| D  | d  |
|----|----|
| 97 | 89 |
| 89 | 76 |
| 75 | 60 |


Mounting base (rotatable)

Pole mounting attachment

Accessories


7.2 Mounting / dismounting, operating position

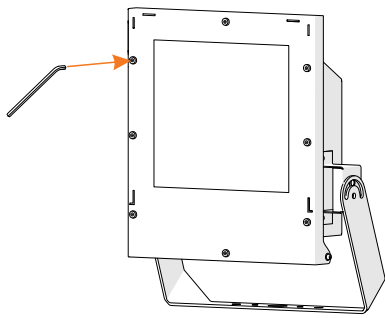
The mounting position of the floodlight is optional. The lamp axis must be horizontal.

| <b>DANGER</b>   |   |
|---|---|
|  | <p>Explosion hazard due to inadmissible heating!<br/>Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Avoid external heat sources and/or direct sunlight (risk of change of temperature class or change of maximum permissible surface temperature).</li> <li>• Do not exceed the maximum ambient temperature due to external heat sources (premature failure of equipment).</li> </ul> |

### 7.3 Installation

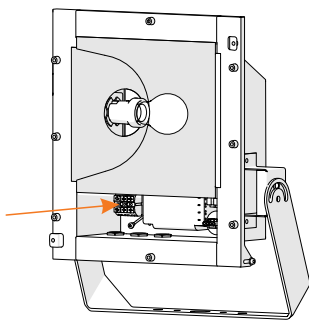
#### 7.3.1 Electrical connections

|   |  |
|---|--|
|  | DANGER   |
|   | <p>Risk of electric shock due to improper opening!<br/>                 Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Open luminaires without switch only in de-energized state (see information plate on the lock)!</li> </ul> |



17216E00

- Loosen the M6 cover screws
- Open the cover
- Insert the cable




17217E00

- Connect the conductor to the spring clamp terminal
- Check that the cable is clamped properly
- Close the cover
- Firmly tighten the cover screws (torque 2.5 Nm)

| Terminal                  | Stripping length |
|---------------------------|------------------|
| 0.5 ... 4 mm <sup>2</sup> | 10 ... 11 mm     |
| 0.5 ... 6 mm <sup>2</sup> | 13 ... 15 mm     |


- The unit must be connected to a good quality earth.
- The internal Earth connection is the primary point. The external connection is for a supplementary bonding connection and is used where local code or authorities permit or require such connection.

### 7.3.2 Cable entries

|   |   |
|---|---|
|  | WARNING   |
|   | <p>Not approved cable glands and stopping plugs.<br/>Explosion protection is impaired!</p> <ul style="list-style-type: none"> <li>• Only use separately certified cable glands and stopping plugs.</li> </ul> |

Cable glands and stopping plugs must be approved for the following types of protection:


- a) restricted breathing (nR) and dust (IIIC)
- b) increased safety (e)

|   |   |
|---|---|
|  | <p><b>Recommendation:</b><br/>Use of cable glands and stopping plugs supplied by R. STAHL Schaltgeräte GmbH.</p> <ul style="list-style-type: none"> <li>• see data sheet on our homepage <a href="http://www.stahl-ex.com">www.stahl-ex.com</a>.</li> </ul> |
|---|---|

Please observe the following, if cable glands and stopping plugs are used, but not provided by R. STAHL Schaltgeräte GmbH:

- Permissible cable diameter range, torques, temperature range of use
  - IP level of protection, at least IP 65 or according to details on rating plate
  - Operating instructions of the cable glands and stopping plugs
- additionally, observe the following for cable glands and stopping plugs of the type of protection "increased safety" (e):
- valid EC type examination certificate and
  - confirmation of the manufacturer for the combination of the cable and screw connection


## 8 Commissioning

|   |  |
|---|--|
|  | DANGER   |
|   | <p>Explosion hazard due to incorrect installation!<br/>Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Check the device for proper installation before commissioning.</li> <li>• Comply with national regulations.</li> </ul> |

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 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.

|   |  |
|---|--|
|  | DANGER   |
|   | <p>Explosion hazard due to incorrect installation!<br/>                 Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Carry out the restricted breathing test prior to first commissioning.<br/>                     (See chapter "Restricted breathing test")</li> </ul> |

|  |
|--|
| NOTICE   |
| <p>Malfunction or device damage caused by condensation.<br/>                 Non-compliance can result in material damage!</p> <ul style="list-style-type: none"> <li>• operate the luminaire continuously or periodically over extended periods of time.</li> <li>• avoid thermal bridges.</li> </ul> |

## 9 Operation

### 9.1 Troubleshooting

**Cause**

- The lamp was incorrectly inserted.
- The lamp is defective.
- The ballast is defective.

**Measure**

- Insert the lamp correctly.
- Replace the lamp.
- Replace the ballast.

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 and repair

|   |  |
|---|--|
|  | WARNING  |
|   | <p>Risk of electric shock or malfunctioning of the device due to unauthorized work!</p> <p>Non-compliance can result in severe injuries and material damage.</p> <ul style="list-style-type: none"> <li>• Work performed on the device must only be carried out by appropriately authorized and qualified electricians.</li> </ul> |

### 10.1 Maintenance

|   |   |
|---|---|
|  | <p>Observe the relevant national regulations in the country of use.</p> |
|---|---|

|   |  |
|---|--|
|  | DANGER   |
|   | <p>Explosion hazard due to hot built-in components!<br/>Accidents or fatal injury are almost certain to happen!</p> <ul style="list-style-type: none"> <li>• Only open the enclosure in switched-off state.</li> <li>• The device must be allowed to cool down for at least 15 minutes before opening it.</li> </ul> |

- Determine the type and extent of inspections in compliance with the relevant national regulations.
- Adapt inspection intervals to the operating conditions.

The following tests and measures must be carried out during regular maintenance.

**Check**

**Measures**

the permissible ambient temperature

If exceeding the permissible ambient temperature or falling below the device must be taken out of operation.

the enclosure components for formation of cracks and damage.

Replace the exchangeable enclosure components. If the enclosure components are non-exchangeable, the device must be taken out of operation.

its intended use

If the device is not used according to its intended use, it must be taken out of operation.

if the conductors are clamped properly  
the cables for ageing and damage

clamp loose conductors tightly.  
replace damaged or aged cables.

the seals for ageing and damage

replace damaged, aged and porous seals and completely change enclosure components with foamed seal.

the inside and outside of the luminaire for  
pollution

clean the luminaire.

- Restricted breathing of enclosure (see chapter "Restricted breathing test").


|          |  |
|----------|--|
| <b>i</b> | If the restricted breathing test has failed, take the device out of operation! |
|----------|--|

**NOTICE**

**Moisture inside the light fitting**  
can result in damage to electric and electronic components.

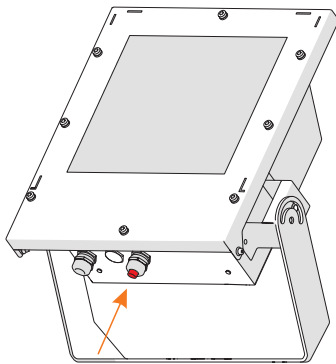
- Remove moisture with a cloth!
- Determine the source and eliminate the cause!
- Avoid condensation and thermal bridges!

### 10.1.1 Cleaning

|   |  |
|---|--|
|  | DANGER   |
|   | <p>Explosion hazard due to electrostatic discharge!<br/>Accidents or fatal injury are almost certain to happen!</p> <ul style="list-style-type: none"> <li>• Clean the device with a damp cloth only.</li> </ul> |

- Clean the device only with a cloth, brush, vacuum cleaner or similar items.
- When cleaning with a damp cloth, use water or mild, non-abrasive, non-scratching cleaning agents.
- Do not use aggressive detergents or solvents.

### 10.1.2 Restricted breathing test



17218E00

- Opening for restricted breathing test

The luminaire is equipped with a test device for restricted breathing. Restricted breathing must be checked after installation and during regular maintenance acc. to IEC/EN 60079-15.

#### Inspection according to IEC/EN 60079-15, para. 23.2.3.2.1.1

|   |  |
|---|--|
| i | <p><b>Recommendation</b><br/>Check the luminaire by using the handheld testing instrument for restricted breathing from R. Stahl Schaltgeräte GmbH (see data sheet).</p> |
|---|--|

|   |  |
|---|--|
| i | <p>The test should only be carried out at constant temperature conditions.</p> |
|---|--|

In order to test restricted breathing (pressure test), the luminaire is equipped with a cable entry with red stopping plugs.

- Remove the red stopping plug.
- Insert the hose of the test device into the cable entry for testing restricted breathing.
- Hand-tighten the cable entry.
- Use the hand pump to create a vacuum of 0.3 kPa (3 mbar).

The test has been passed if after 90 seconds a vacuum of at least 0.15 kPa (1.5 mbar) is still present in the luminaire.

After inspection:


- Remove the hose of the test device for testing restricted breathing from the cable entry.
- Close the luminaire using the red stopping plug.

Alternative pressure and time specifications:

|                         | Alternative 1     | Alternative 2       |
|-------------------------|-------------------|---------------------|
| Vacuum at start of test | 3.0 kPa (30 mbar) | 0.3 kPa (3 mbar)    |
| Test duration           | 14 seconds        | 14 seconds          |
| Vacuum after testing    | 2.7 kPa (27 mbar) | 0.27 kPa (2.7 mbar) |

|          |   |
|----------|---|
| <b>i</b> | If the luminaire is only marked with the type of protection for dust (IIIC), the cable entries and stopping plugs do not need to meet the requirements for restricted breathing (nR). |
|----------|---|

## 10.2 Repair

|  |  |
|--|--|
|  | <b>DANGER</b>  |
|  | <p>Explosion hazard due to improper repair!<br/>Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> <li>• Repair work on the devices must be performed only by R. STAHL Schaltgeräte GmbH.</li> </ul> |

## 10.3 Returning the device

Use the "Service form" to return the device if repair or service is required. On the internet site "[www.stahl-ex.com](http://www.stahl-ex.com)" under "Downloads > Customer service":

- Download the service form.
- Fill out the service form.
- Send the device along with the service form in the original packaging to R. STAHL Schaltgeräte GmbH.

## 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

### *NOTE*

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  
[www.stahl-ex.com](http://www.stahl-ex.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:** Scheinwerfer  
*that the product:* Flood light  
*que le produit:* Projecteur

**Typ(en), type(s), type(s):** 6521/4...-...-....

**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) |
|---|-----------------------------------|
| 2014/34/EU / ATEX-Richtlinie                | EN 60079-0:2012 + A11:2013        |
| 2014/34/EU / ATEX Directive                 | EN 60079-15:2010                  |
| 2014/34/UE / Directive ATEX                 | EN 60079-31:2014                  |

**Kennzeichnung, marking, marquage:** II 3 G Ex nRc IIC T. II 2 D Ex tb IIIC T...°C IP66

**Konformitätsaussage:** TÜV 11 ATEX 7008  
*Conformity Statement:* TÜV 10 ATEX 7875  
*Déclaration de Conformité:* (TÜV Rheinland Industrie Service GmbH, Am Grauen Stein, 51105 Köln)

|  |   |
|--|---|
| <b>Produktnormen nach Niederspannungsrichtlinie:</b><br><i>Product standards according to Low Voltage Directive:</i><br><i>Normes des produit pour la Directive Basse Tension:</i> | EN 60598-1:2015<br>EN 62471:2008<br>EN 62493:2010 |
|--|---|

|                             |  |
|-----------------------------|--|
| 2014/30/EU / EMV-Richtlinie | EN 61547:2009                          |
| 2014/30/EU / EMC Directive  | EN 55015:2013                          |
| 2014/30/UE / Directive CEM  | EN 61000-3-2:2014<br>EN 61000-3-3:2013 |

|                              |               |
|------------------------------|---------------|
| 2011/65/EU / RoHS-Richtlinie | EN 50581:2012 |
| 2011/65/EU / RoHS Directive  |               |
| 2011/65/UE / Directive RoHS  |               |

Waldenburg, 2017-08-11

**Ort und Datum**  
*Place and date*  
*Lieu et date*

i.V.

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

i.V.

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