



Emergency Luminaire with LED

Series EXLUX 6009/1



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1 General Information

1.1 Manufacturer

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1.2 Information regarding the operating instructions

ID-No.: 253875 / 600960300080
Publication Code: 2017-09-20-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
- Documents in additional languages www.r-stahl.com

1.4 Conformity with standards and regulations

See certificates and EU Declaration of Conformity: 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:
<https://r-stahl.com/en/global/products/support/downloads/>.

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

Warning notes 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/damage

	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

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 light fitting 6009 is equipment


- for lighting areas, work spaces and objects
- for emergency lighting in case of power failure.
- 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

	DANGER
	Explosion hazard due to modifications and alterations to the device! Non-compliance results in severe or fatal injuries. <ul style="list-style-type: none"> • Do not modify or alter the device.

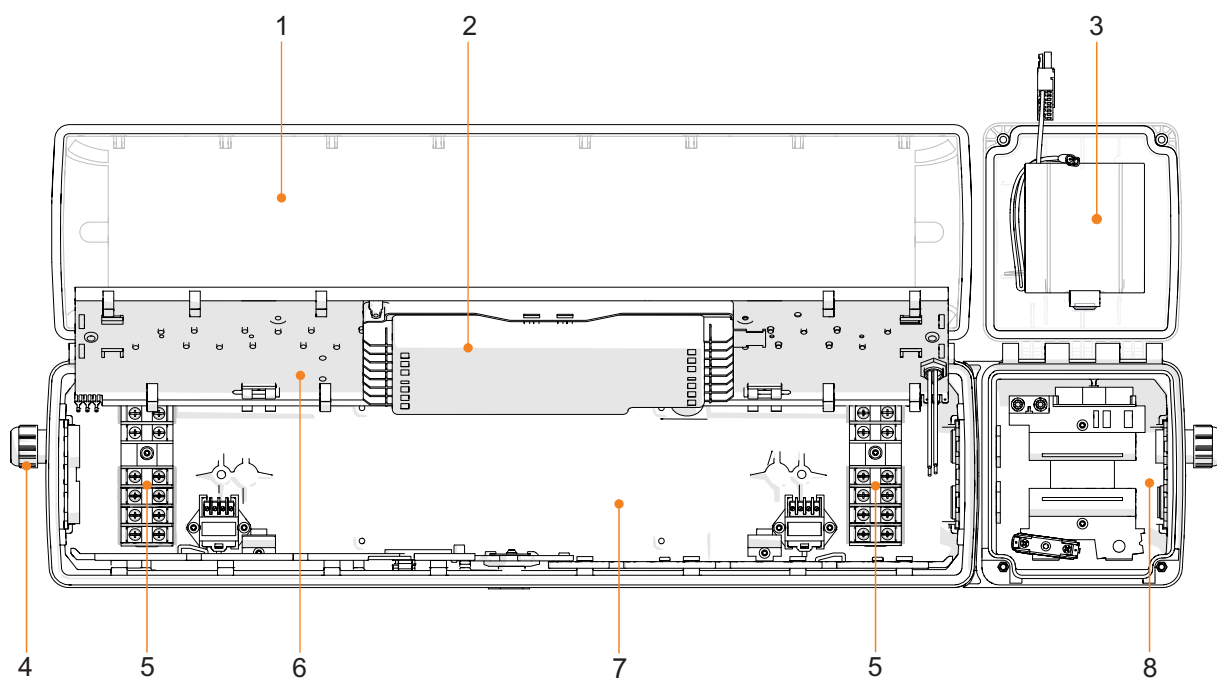
4 Function and device design

4.1 Function

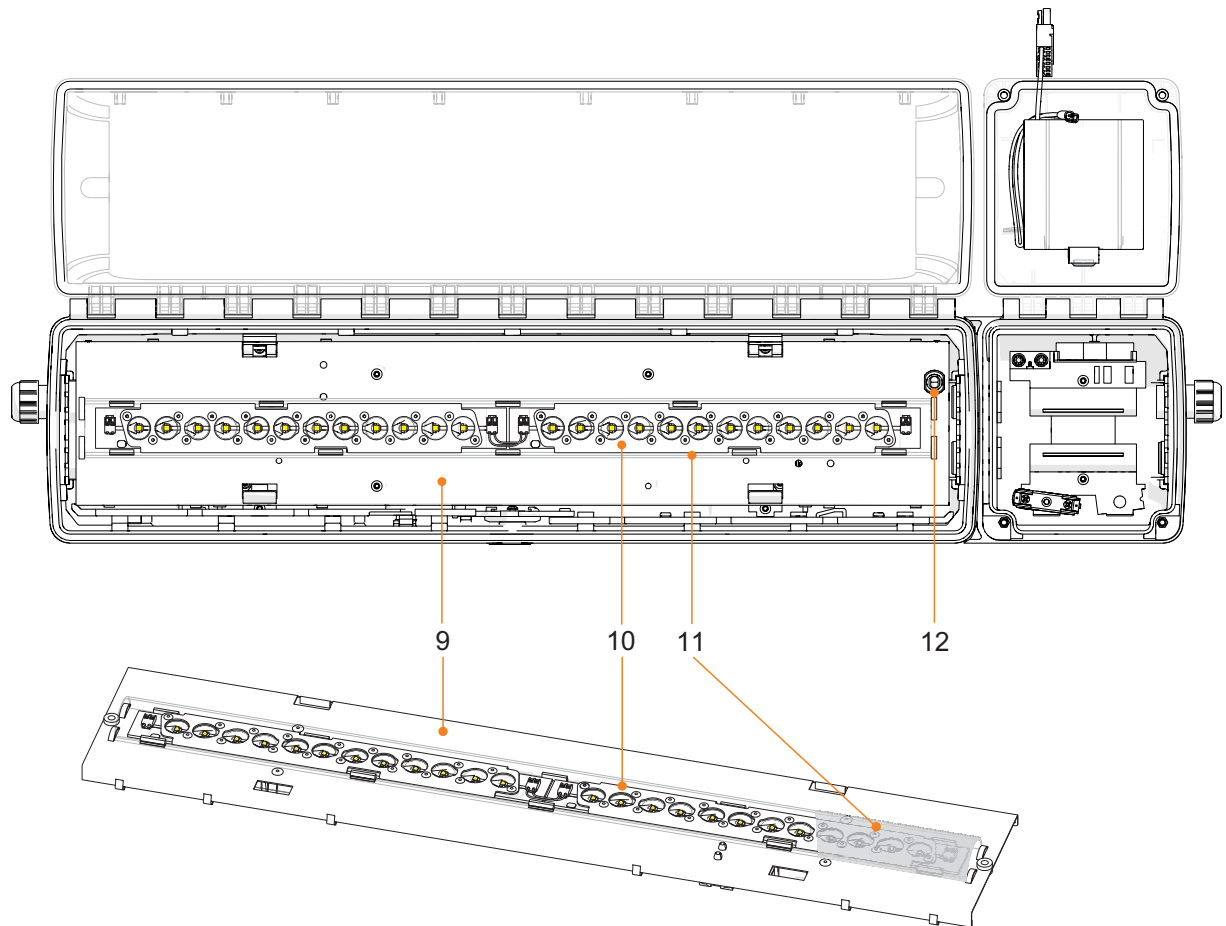
	DANGER
	<p>Explosion hazard due to improper use! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Use the device only in accordance with the operating conditions described in these operating instructions. • Use the device only for the intended purpose specified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

- for lighting areas, work spaces and objects
- for emergency lighting in case of power failure.
- switching off the equipment by means of a central lock (optional) when the luminaire is opened
- weekly functional test, permanently integrated
- annual rated operating time test

4.2 Device design



18480E00



18481E00

1 - Translucent cover	7 - Luminaire enclosure
2 - Control gear	8 - Battery enclosure
3 - Battery	9 - Mounting plate (top side)
4 - Cable gland	10 - LED PCB
5 - Connection terminal	11 - Diffuser
6 - Mounting plate (bottom side)	12 - LED indicator

5 Technical data

Explosion Protection

Global (IECEX)

Design	6009/1..1	6009/1..2
Gas and dust	IECEX IBE 16.0038	IECEX IBE 16.0038
	Ex db eb mb op is IIB+H ₂ T4 Gb	Ex db eb mb op is IIC T4 Gb
	Ex tb op is IIIC T100°C Db	Ex tb op is IIIC T100°C Db

Europe (ATEX)

Design	6009/1..1	6009/1..2
Gas and dust	IBExU16ATEX1199	IBExU16ATEX1199
	Ex II 2 G Ex db eb mb op is IIB+H ₂ T4 Gb	Ex II 2 G Ex db eb mb op is IIC T4 Gb
	Ex II 2 D Ex tb op is IIIC T100°C Db	Ex II 2 D Ex tb op is IIIC T100°C Db

Certifications and certificates

Design	6009/1..1	6009/1..2
Certificates	IECEX, ATEX	IECEX, ATEX

Technical Data

Electrical data

Control gear

AC: 110 ... 240 V ±10 %; 50 ... 60 Hz

	6009/12..-1..-.....-...-		6009/14..-1..-.....-...-	
Power consumption [W]	28		52	
Voltage [V]	230	110	230	110
Frequency [Hz]	50	60	50	60
Power factor	≥ 0.90	≥ 0.98	≥ 0.95	≥ 0.99
THD [%]	≤ 12.5	≤ 12.5	≤ 7	≤ 8
Rated operational current [A]				
LEDs off, battery conservation mode	typ. 0.05	typ. 0.05	typ. 0.05	typ. 0.05
LEDs on, battery conservation mode	typ. 0.14	typ. 0.26	typ. 0.24	typ. 0.48
LEDs off, battery charging mode	typ. 0.06	typ. 0.08	typ. 0.06	typ. 0.08
LEDs on, battery charging mode	typ. 0.14	typ. 0.28	typ. 0.24	typ. 0.50

Inrush current

$I_{peak} = 63 \text{ A}$; $\Delta t = 115 \mu\text{s}$
maximum number of luminaires per miniature circuit breaker at 230 V:

Type	10 A	16 A	20 A	25 A
B	7	12	15	18
C	12	20	25	31
K	25	40	50	62

Technical Data

Luminous characteristics

	6009/12...-00	6009/14...-00	6009/12...-01	6009/14...-01
Power consumption [W]	28	52	28	52
Colour rendering [CRI]	≥ 80	≥ 80	≥ 70	≥ 70
Colour temperature [K]	5,000	5,000	5,700	5,700
without diffuser				
Luminous flux [lm]	typ. 2,850	typ. 5,700	typ. 3,150	typ. 6,300
Luminaire efficiency [lm/W]	typ. 102	typ. 110	typ. 113	typ. 121
with diffuser				
Luminous flux [lm]	typ. 2,350	typ. 4,700	typ. 2,600	typ. 5,200
Luminaire efficiency [lm/W]	typ. 84	typ. 90	typ. 93	typ. 100

Values apply to $T_a = +25\text{ °C}$.

Service life

Service life

	$T_a \leq 25\text{ °C}$	$T_a \leq 45\text{ °C}$	$T_a \leq 60\text{ °C}$
$L_{70}B_{10}C_{10}$	100,000 h	90,000 h	50,000 h

$L_xB_yC_z$

At the end of the Service Life:

- Luminous flux decrease to "x" percent
- max. "y" percent of all the light fittings fall below "x"
- max. "z" percent of all the light fittings break down completely

Ambient conditions

Ambient temperature

- 30 ... + 60 °C (1, 2)	without through wiring
- 30 ... + 55 °C (1, 2)	with through wiring; $I_N \leq 10\text{ A}$
- 30 ... + 50 °C (1)	with through wiring; $I_N \leq 16\text{ A}$

(1) Rated operating time during emergency light operation

is guaranteed within an ambient temperature range of $-5\text{ °C} \dots 50\text{ °C}$. This also applies to charging and discharging of the battery. The rated operating time might be reduced if used outside this temperature range.

(2) Battery service life

is guaranteed within an ambient temperature range of $-30\text{ °C} \dots 50\text{ °C}$ according to IEC/EN 60598-2-22.

Technical Data

Mechanical data

Degree of protection	IP66 / IP67 (IEC 60598)
Protection class	I (with internal PE connection)
Impact strength (IK code)	IK10 (IEC 62262)
Material	
Enclosure	
Enclosure	Polyester resin, glass fibre-reinforced
Colour	colour grey, similar to RAL 7035
Translucent cover	Polycarbonate
Seal	Silicone foam gasket in the lamp cover
Luminaire locking	Central locking which can be opened/closed using a socket key M8 / wrench size 13, hinged lamp cover

Mounting / Installation

Cable glands

Standard luminaire

Plastic:	2 x M25 x 1.5 cable entries 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:	max. 4 drilled holes for M20, M25, NPSM ½" max. 2 drilled holes for NPT ¾" Metal cable glands: M20 x 1.5, M25 x 1.5; earthing of the metal cable entries by means of metal plates

Connection

Standard:	Spring clamp terminals 6-pole: L1, L2, L3, L', N, PE Clamping range: 1 x 0.75 ... 4 mm ² (solid / finely stranded) (2 free clamping units per pole available)
Special:	Terminal block with covering 6-pole: L1, L2, L3, L', N, PE Clamping range: 2 x 1.5 ... 6 mm ² (solid); 2 x 1.5 ... 4 mm ² (finely and extra finely stranded)

Through wiring

Through wiring	Standard luminaire Luminaires are equipped with internal through wiring. Ingoing and outgoing leads can be connected to the opposite sides. Terminals: see techn. data Wiring cross section: 2.5 mm ² for max. 16 A.
without	Optional On the connection side, there are 2 cable entries M25 x 1.5 for ingoing and outgoing wiring of the connection line (ingoing and outgoing leads on one side).

Technical Data

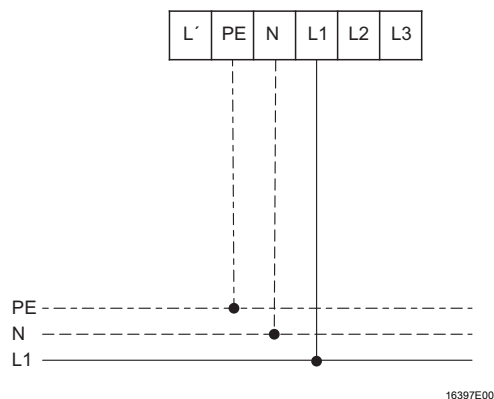
Assembly	<div>Standard luminaire</div> <div>Standard: 2 x M8 insert nuts in the enclosure</div> <div>Special: Mounting grooves in the enclosure for use of fastening and ceiling rails for variable luminaire mounting (variable mounting distances for luminaires L = 700 mm: 320 ... 480 mm; L = 1310 mm; 670 ... 930 mm)</div>													
Control gear	In case of power failure the LEDs are supplied by the battery													
Emergency light mode	at optimal ambient temperature of the battery:													
Rated operating time	<table><tr><th rowspan="2">Battery capacity</th><th rowspan="2">Operating time of emergency light</th><th colspan="2">Emergency light output</th></tr><tr><th>28 W</th><th>52 W</th></tr><tr><td rowspan="2">7 Ah</td><td>1.5 h</td><td>58 %</td><td>31 %</td></tr><tr><td>3.0 h</td><td>30 %</td><td>21 %</td></tr></table>	Battery capacity	Operating time of emergency light	Emergency light output		28 W	52 W	7 Ah	1.5 h	58 %	31 %	3.0 h	30 %	21 %
Battery capacity	Operating time of emergency light			Emergency light output										
		28 W	52 W											
7 Ah	1.5 h	58 %	31 %											
	3.0 h	30 %	21 %											
Switchover voltage	from mains to battery operation for $U < 0.83 \times U_N$ from battery to mains operation for $U > 0.88 \times U_N$													
Battery set	Gas-tight NiCd battery													
Version	6 V													
Operating voltage	7 Ah													
Capacity	When opening the battery enclosure, the connection between the battery and the emergency light electronics is disconnected by means of a switch.													
Replacing the battery set	The battery set can be replaced after disconnecting the plug-in contacts.													

6 Engineering

6.1 Mains operation

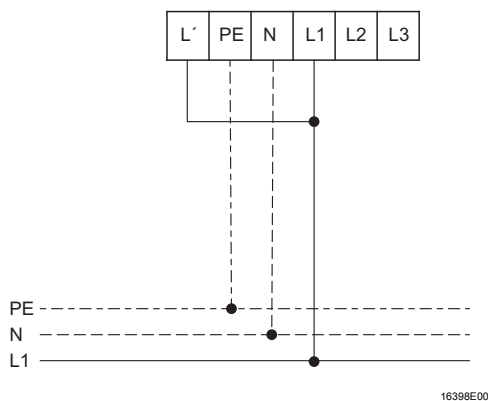
6.1.1 Stand-by operation

- The light fitting is switched off.



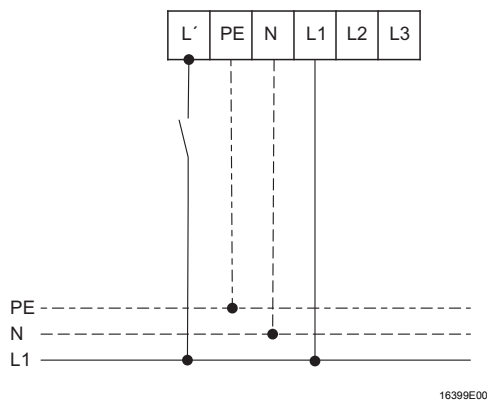
6.1.2 Continuous operation

- The light fitting is switched on.



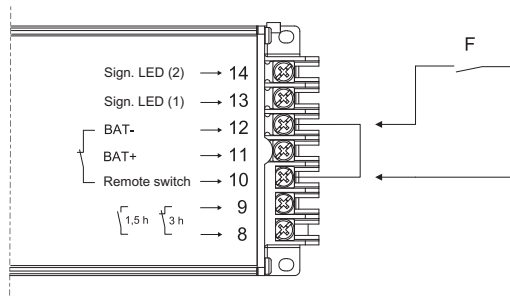
6.1.3 Normal lighting operation

- The light fitting is operated by normal lighting.



6.2 Emergency light blocking

A remote switch for emergency light blocking can be connected to terminals 10 and 12 of the control gear.



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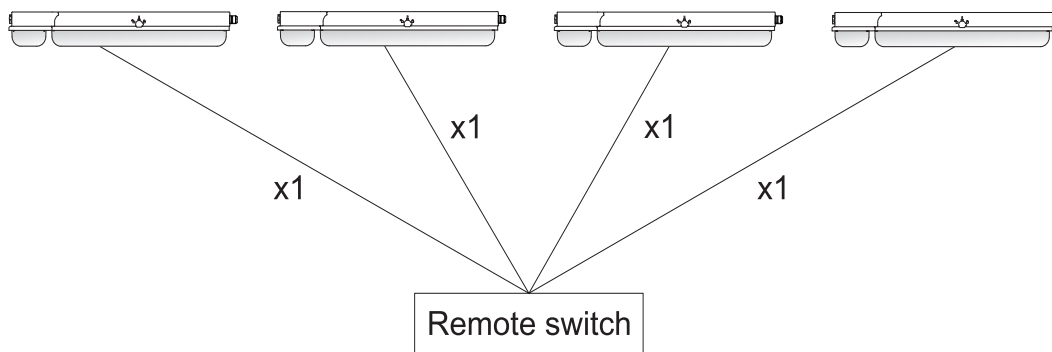
	Remote switch is closed	Remote switch is opened
Power supply operation	Switching on the luminaire depending on operation mode	Switching on the luminaire depending on operation mode
Power failure	Emergency light function	No emergency light function

6.2.1 Connection version remote switch

The remote switch is directly connected to the control gear.

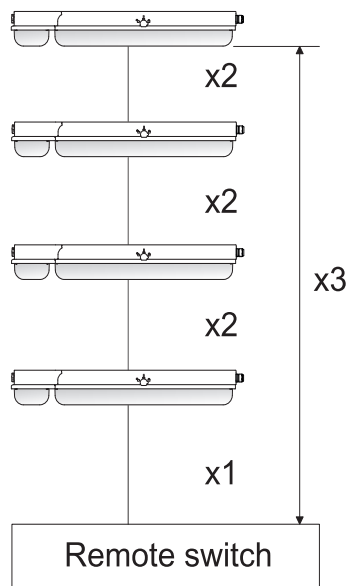
The following connection versions are possible:

Point-to-point connection



18474E00

Linear connection



18473E00

The following conductor specifications must be observed during connection.

	Point-to-point connection	Linear connection
maximum conductor length		
x 1	500 m	100 m
x 2		50 m
x 3		500 m
maximum number of light fittings	50	30
Cable cross section	1.5 mm ²	1.5 mm ²

7 Transport and storage

7.1 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.


7.2 Batteries

- Do not transport in explosive dust atmosphere!
- Do not transport together with other materials!
- Handle with care!
- Store protected from explosive dust atmosphere, fire, sources of dust, harmful gases and liquids!
- Store in a dry and cool location!

Recommendation:

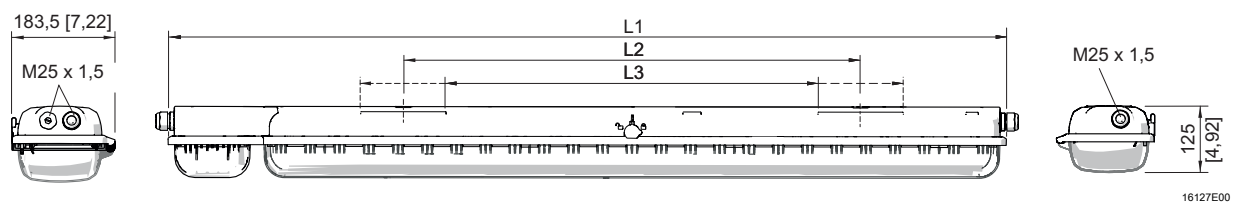
- Store battery at an ambient temperature of + 5 °C to + 25 °C and a relative humidity of 65 ± 5 %.

8 Mounting and installation

	DANGER
	<p>Explosion hazard due to incorrect installation of the device! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • 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	
<p>Malfunction or device damage caused by condensation. Non-compliance can result in material damage!</p> <ul style="list-style-type: none"> • operate the luminaire continuously or periodically over extended periods of time. • avoid thermal bridges. 	

8.1 Dimensions / fastening dimensions

Dimensional Drawings (All dimensions in mm [inches]) - Subject to alterations



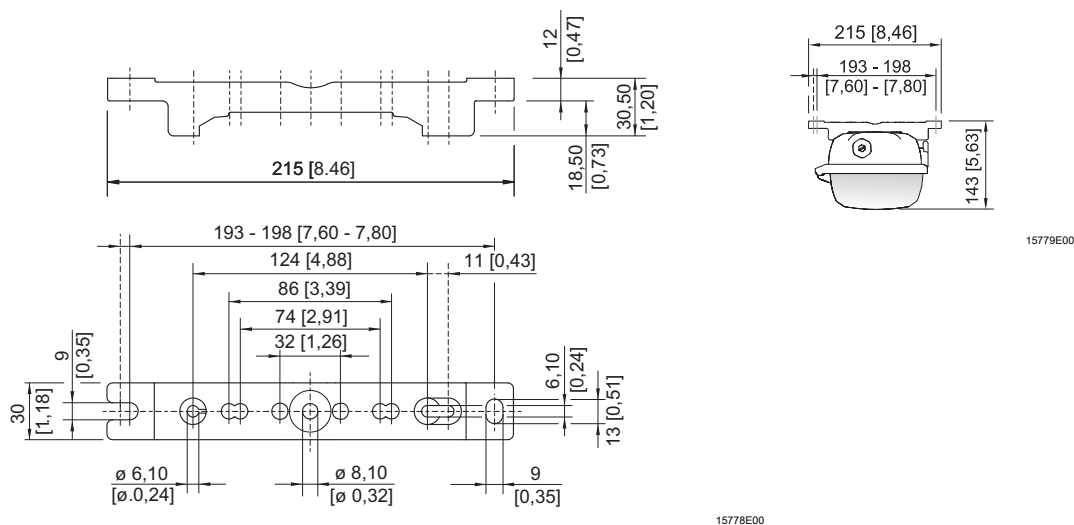
Dimensions	Luminaire	
	28 W	52 W
L1	857 [33.74]	1467 [57.76]
L2 ¹⁾	400 [15.75]	800 [31.50]
L3 ²⁾	320 ... 480 [12.60 ... 18.90]	670 ... 930 [26.38 ... 36.61]

¹⁾ fixed mounting distance

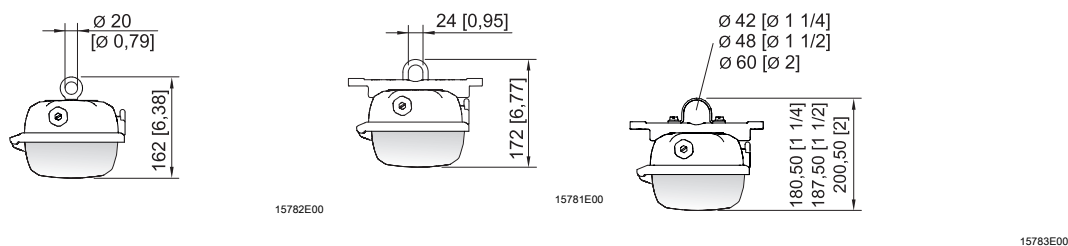
²⁾ variable mounting distance

EXLUX 6009/1

Dimensional drawings for assembly parts and accessories
(all dimensions in mm [inches]) - Subject to alterations



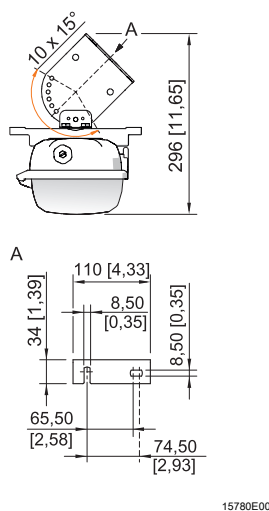
Mounting rail



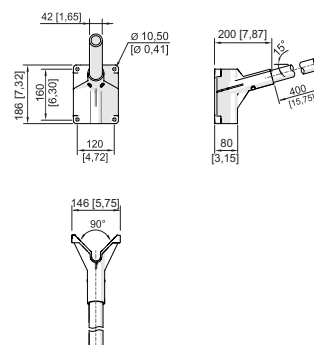
Ring bolt fitted in insert nut of the luminaire

Mounting bracket fitted in mounting rail

Pipe clamp fitted in mounting rail

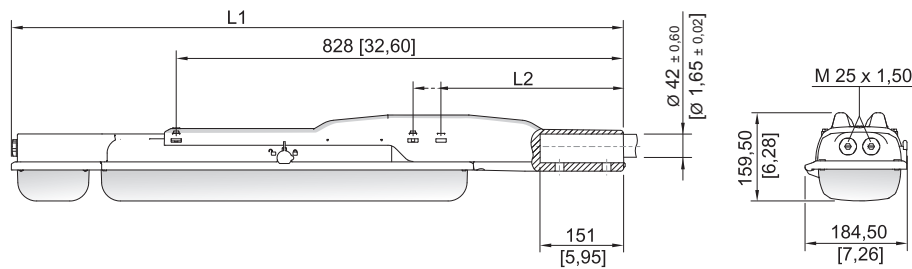


Wall mounting bracket fitted in mounting rail



Bracket for wall mounting with pipe section

Dimensional drawings for assembly parts and accessories (all dimensions in mm [inches]) - Subject to alterations






17756E00

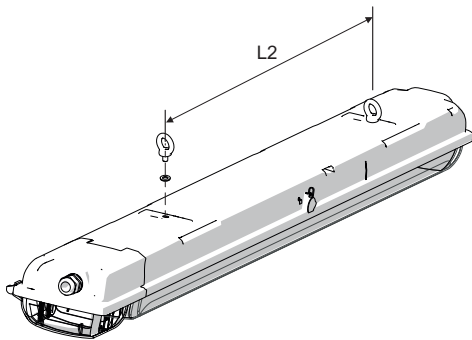
Dimensions	Luminaire	
	28 W	52 W
L1	1135 [44.69]	1744 [68.66]
L2	390 [15.35]	338 [13.31]

Linear luminaire EXLUX with pole mounting sleeve

8.2 Mounting / dismounting, operating position

	<div style="background-color: red; color: white; text-align: center; padding: 5px;">DANGER</div> <p>Explosion hazard due to electrostatic discharge Non-compliance results in severe or fatal injuries.</p> <p>Do not use the luminaire in strong charge generating environments!</p> <p>The following processes/activities should be avoided:</p> <ul style="list-style-type: none"> • accidental friction • particle currents
	<p>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.</p>
	<div style="background-color: red; color: white; text-align: center; padding: 5px;">DANGER</div> <p>Explosion hazard due to inadmissible heating! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • 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).

Suspension at fixed mounting points

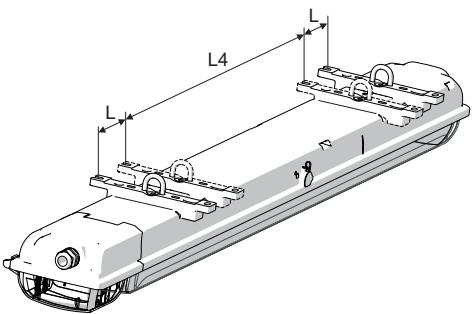


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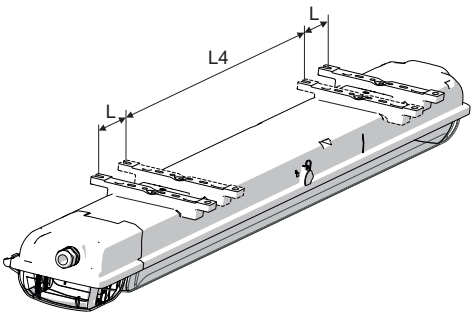
Version	L2 [mm]
28 W	400
52 W	800

max. screw-in depth 10 mm

Suspension at movable mounting parts



16325E00



16326E00

Mounting bracket

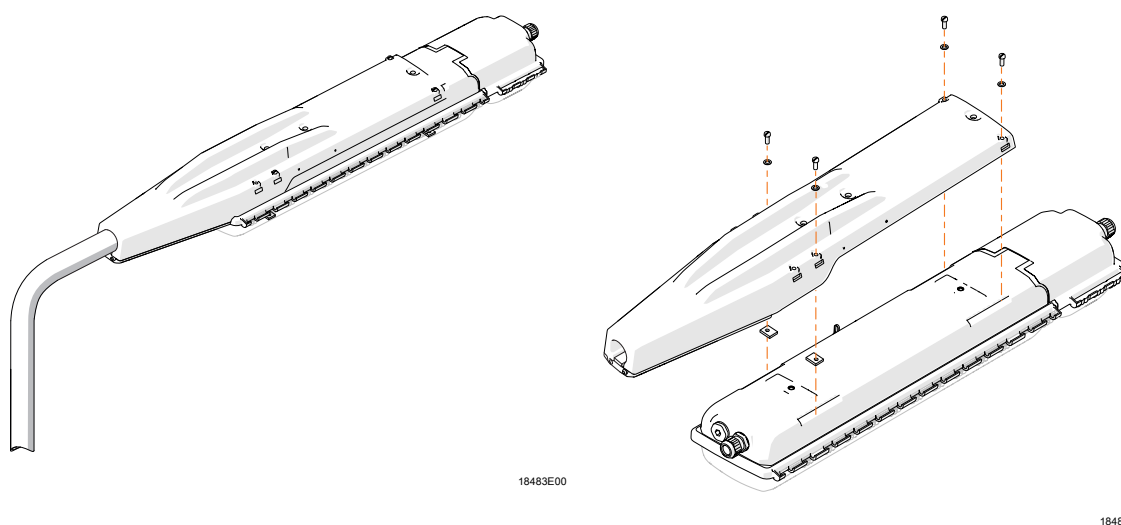
Version	L4 [mm]	L [mm]
28 W	320	80
52 W	670	130

Top rail

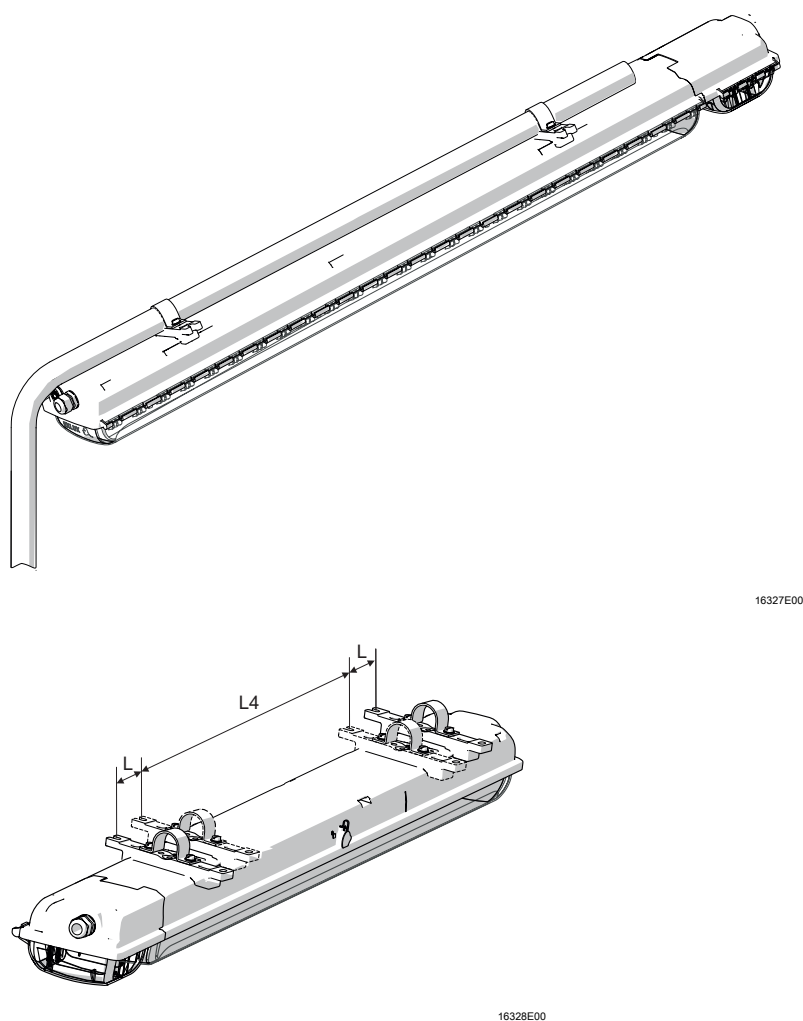
Lateral mounting pockets for variable points of suspension.

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 mounting using pole mounting sleeve



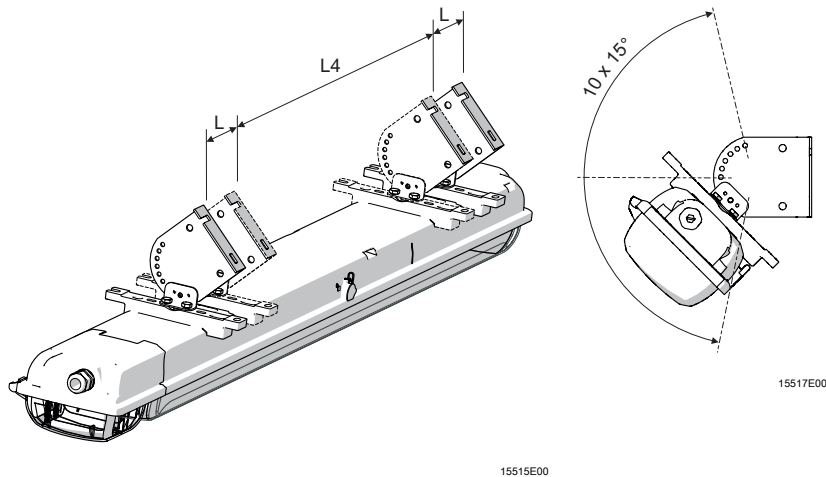
Pole mounting using pipe clamps



Version	L4 [mm]	L [mm]
28 W	320	80
52 W	670	130

	<p>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!</p>
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Wall bracket mounting




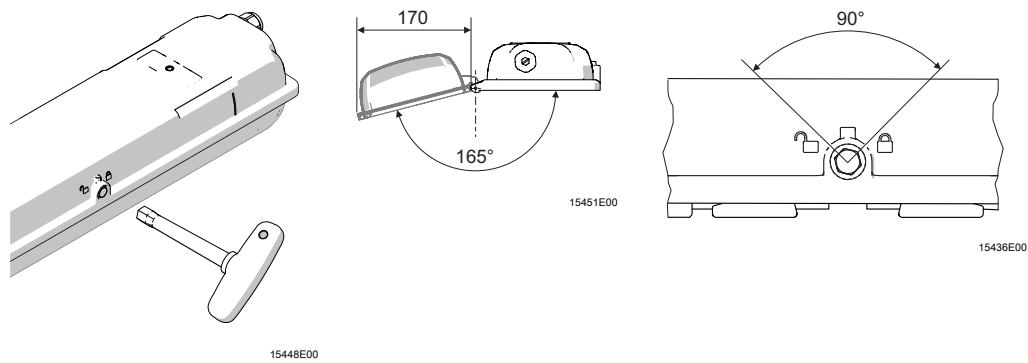
Version	L4 [mm]	L [mm]
28 W	320	80
52 W	670	130

8.3 Installation

8.3.1 Opening and Closing of the Enclosure

	DANGER
	<p>Risk of electric shock! Risk of fatal injuries!</p> <ul style="list-style-type: none"> Luminaires without switch must not be opened when they are supplied with power (see information plate on the lock)!

	<p>Recommendation Opening and closing of the luminaire by using a socket wrench from R. STAHL Schaltgeräte GmbH.</p>
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- Remove the closing cap of the central lock.
- Turn the central lock using a socket wrench M8, wrench 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).

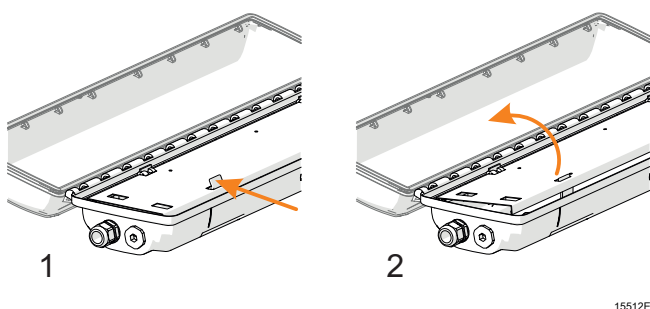
Note:

- Version without switch: Disconnect the luminaire from the power supply, secure it against being switched on again and open the battery box in order to disconnect the battery.
- Version with switch: The luminaire is positively disconnected from the power supply by actuating the central lock.
- In open end position and with translucent cover swivelled down, a restart lock-out device prevents the central lock from being actuated.

Please do not use force!

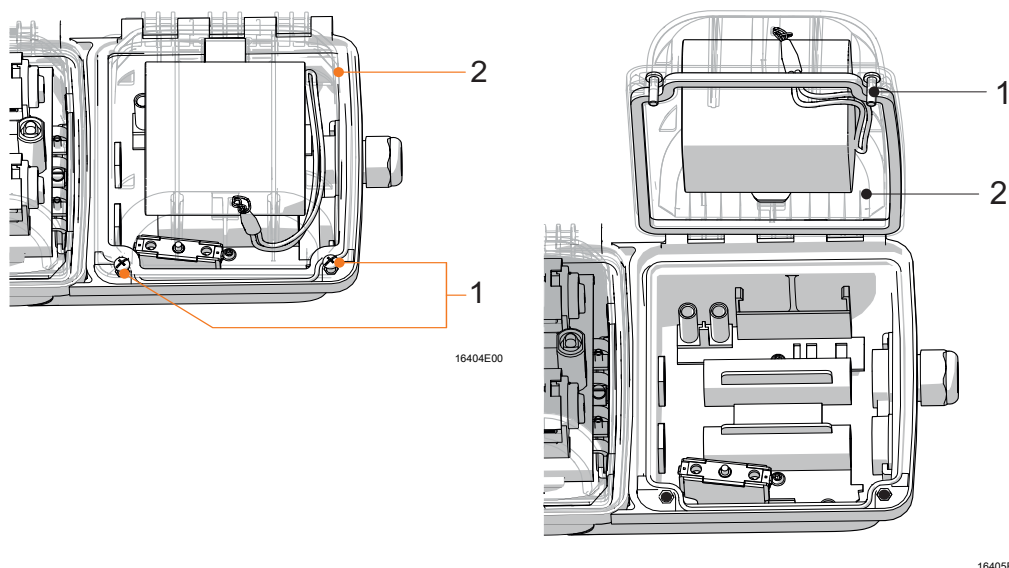
When the translucent cover is closed, the central lock is released.

Opening and closing the reflector plate



- 1 Open the reflector plate by pressing the safety latch.
 - 2 Swivel down the reflector plate.
- When closing, flip up the reflector plate and snap it into place.

Opening and closing the battery box



Opening

- Loosen the screws (1) (cross head H2).
- Open the battery cover (2).

Closing

- Close the battery cover (2).
- Tighten the screws (1) (cross head H2) firmly (2 Nm).

8.3.2 Electrical connections

Electrical connection

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

For optional screw-type terminals, two conductors per clamping unit can be clamped (ingoing and outgoing wiring).

Note:

- Clamping must be carried out precisely!
- Do not clamp any part of the conductor insulation!
- Do not interchange the conductors!
- Observe the technical regulations when connecting the conductor!
- Clamp the conductor firmly.
- The terminal cover of optional screw-type terminals does not have to be removed to clamp the conductor!
- The phase L1 must be directly connected to the grid which functions as charging phase for the battery!

NOTICE

Danger due to wrong connection.

Malfunction

- Phases L and L1 must be connected in phase.
- Optional screw terminals: Firmly tighten screws (tightening torque 2 Nm, for unused clamping units 0.7 Nm)!

Connection terminals

Standard:

Spring clamp terminals

Clamping range:

0.75 ... 4 mm²

(2 free clamping units per pole available)

Stripping length:

10 ... 11 mm

Optional:

Screw terminals

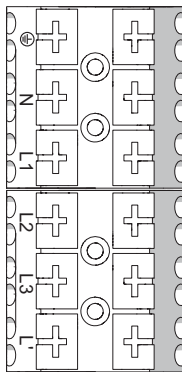
Clamping range:

2x 1.5 ... 4 mm² finely
and extra finely
stranded

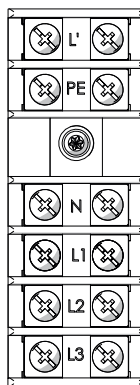
2x 1.5 ... 6 mm² solid

Stripping length:

10 ... 11 mm



16333E00



16408E00

- L' = switched phase
- L1 = charging phase
- L2, L3 = phase
- N = neutral conductor
- PE = protective conductor

Through wiring of the mains supply connection

NOTICE

Through wiring with 2.5 mm² cross section for max. 16 A.

8.3.3 Cable entries

The standard luminaire is delivered with 3 lead-in holes, 2 cable glands and 2 stopping plug.

Please observe the tightening torque for luminaires with installed cable glands and stopping plugs from R. STAHL Schaltgeräte GmbH.

	Tightening torque	
	Connection thread	Pressure screw
Cable gland 8161		
M20 x 1.5	2.3 Nm	1.5 Nm
M25 x 1.5	3.0 Nm	2.0 Nm
Stopping plugs 8290		
M20 x 1.5	1.0 Nm	
M25 x 1.5	1.5 Nm	

Luminaires with approved cable glands and stopping plugs; not supplied by R. STAHL Schaltgeräte GmbH

	<p style="text-align: center;">WARNING</p> <p>Cable glands and stopping plugs which are not approved. Explosion protection is impaired!</p> <ul style="list-style-type: none"> • Only use separately certified cable glands and stopping plugs.
--	---

Please note:

- 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 glands and stopping plugs!
- the required tightening torques!
- the range of the permissible cable diameter!

9 Commissioning

	<p style="text-align: center;">DANGER</p> <p>Explosion hazard due to incorrect installation! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> • Check the device for proper installation and function before commissioning. • Comply with the 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 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.
- Check if the battery is connected.

10 Operation

10.1 Operating Modes

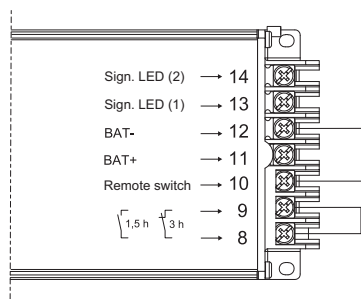
Power supply operation

Stand-by operation	The luminaire is switched off regardless of normal lighting.
Continuous operation	The luminaire is switched on regardless of normal lighting.
Normal lighting operation	The light fitting is operated by normal lighting.

Emergency light operation:

In the event of a power failure, the luminaire switches to emergency light operation. The luminaire is switched on regardless of the operation mode of the selected rated operating time.

Rated operating time

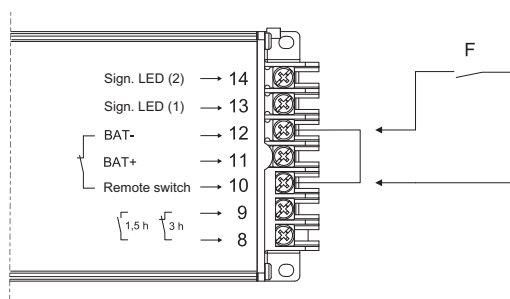


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Rated operating time	Jumper between terminals 8 and 9 of the control gear
1.5 hours	open
3.0 hours	closed

Emergency light blocking

A remote switch for emergency light blocking can be connected to terminals 10 and 12 of the control gear.



18475E00

	Remote switch is closed	Remote switch is opened
Power supply operation	Switching on the luminaire depending on operation mode	Switching on the luminaire depending on operation mode
Power failure	Emergency light function	No emergency light function

10.2 Functional and rated operating time test

To carry out the test, the following prerequisites must be fulfilled:

- the time interval has expired.
- the power supply operation was active for at least 1 hour.
- the remote switch is closed.

The test result is shown on the LED indicator.

During a test the luminaire is switched on.

Function test

- starts within 24 hours after commissioning.
- is carried out every 7 days.
- takes 1 minute.
- checks the function of the LEDs and the battery.

Rated operating time test

- starts within 44 days after commissioning.
- is carried out once a year.
- checks the function and the operating time of the luminaire during emergency light mode.
- is repeated after 14 days if rated operating time test is faulty.

10.3 Indications

When connecting to the power supply

Initialisation within 10 seconds

Second	Description	
0 - 2	Function test LED indicator "green"	
2 - 4	Function test LED indicator "red"	
4 - 10	Status rated operating time test	LED indicator flashes green - rated operating time test active LED indicator off - rated operating time test deactivated

After that, the LED indicator switches to the operating mode.

During power supply operation

Blinking: 1 second on, 1 second off


Flashing: 0.25 seconds on, 0.75 seconds off

LED indicator	State	Description
Green	Luminaire is ready for operation	
Blinking green	Luminaire is ready for operation	Function and rated operating time test activated
Red	Error	Battery is defective or electric circuit is interrupted
Blinking red	Error	Last function and/or rated operating time test faulty
Flashing red	Error	LEDs defective
Blinking green/red	Luminaire is ready for operation No emergency light operation	Emergency light operation is deactivated by remote switch
Flashing green/red	Luminaire is ready for operation	Reset signal detected

During emergency light operation

The LED indicator is switched off.

11 Maintenance, Overhaul, 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"> • Work performed on the device must only be carried out by appropriately authorized and qualified electricians.

11.1 Maintenance



Observe the relevant national regulations in the country of use.

- 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

the permissible ambient temperature

the enclosure components for formation of cracks and damage.

its intended use

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

the seals for ageing and damage

Measures

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

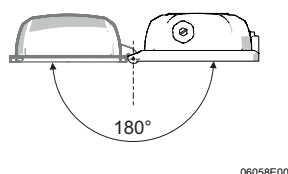
Replace the exchangeable enclosure components. If the enclosure components are non-exchangeable, the device must be taken out of operation.

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

clamp loose conductors tightly.
replace damaged or aged cables.



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

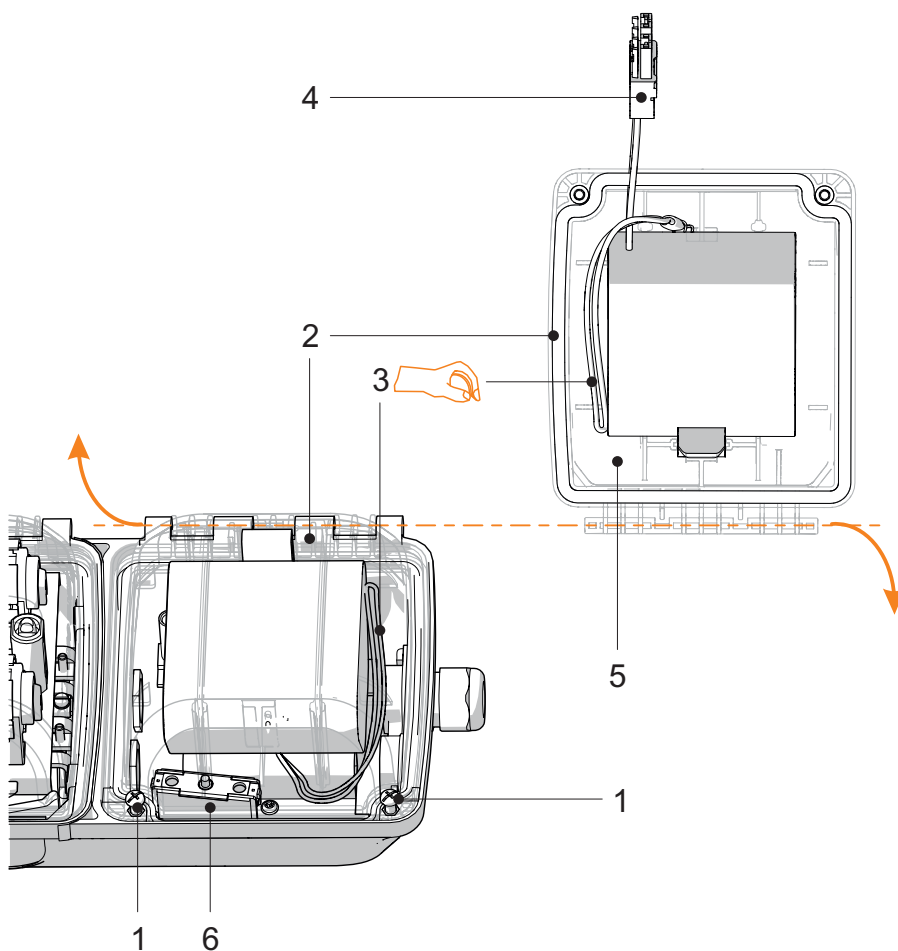
11.1.1 Replacing the luminaire cover



- 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 properly.
- Close the luminaire.
- Observe safety notes!

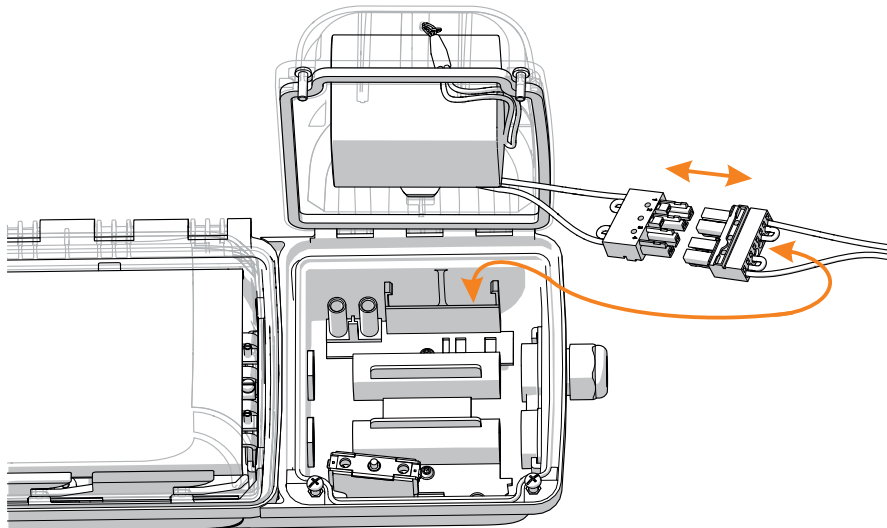
11.1.2 Battery replacement

	<p style="text-align: center;">DANGER</p> <p>Explosion hazard due to explosive dust atmosphere! Non-compliance results in severe or fatal injuries.</p> <ul style="list-style-type: none"> Do not replace or transport the battery in explosive dust atmosphere!
	<p style="text-align: center;">WARNING</p> <p>Danger due to sparking! Explosion protection is impaired!</p> <ul style="list-style-type: none"> Carry the battery cover with built-in battery secured on the wrist. Put the strap of the battery case around the wrist.



16387E00

- Loosen the screws (1) (cross head H2) of the battery cover.
- Open the battery case.
- The switch (6) disconnects the battery circuit.
- Secure the battery cover with built-in battery on the wrist using the strap (3).



16406E00

- Remove the battery plug from the chamber.
- Disconnect the battery plug (4).
- Take off the battery cover with built-in battery (5).
- Put in the new battery cover with built-in battery (5).
- Connect the battery plug (4).
- Loosen the strap (3) from the wrist and store it in the battery case.
- Close the battery case and ensure that the conductors do not get jammed.
- Tighten the screws (1) (cross head H2) firmly (2 Nm).

Resetting the error indication "blinking red" after replacing the battery

<p>i</p>	<p>The error indication "blinking red" remains active after successfully replacing the battery.</p> <p>Deactivation:</p> <p>Automatic:</p> <ul style="list-style-type: none"> • After replacing the battery a rated operating time test is carried out automatically within 14 days. • The error will be reset once this test has been passed successfully. <p>Manual:</p> <ul style="list-style-type: none"> • The line voltage must be switched on. • Actuate the switch in the battery box for 5 seconds. • Release the switch. • Actuate the switch twice within 10 seconds for a duration of 2 seconds. • Resetting of the error will be shown on the LED indicator for 5 seconds by blinking red/green. • The error is reset. • Close the battery box.
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11.1.3 Troubleshooting

Refer to the following troubleshooting chart during troubleshooting:

Cause of error	Troubleshooting
The LEDs are defective.	Replace the mounting plate including LED and the control gear.
The control gear is defective.	Replace the mounting plate including LEDs and the control gear.
The switch is defective.	Replace the switch.

Red LED indicator

The battery is defective.	Replace the battery.
The switch in the battery box is defective.	Replace the switch.
The switch in the luminaire is defective.	Replace the switch.

LED indicator blinking red

The battery capacity is too low.	Replace the battery.
The LEDs are defective.	Replace the mounting plate including LED and the control gear.

The LED indicator lights up in green after troubleshooting.

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)

11.1.4 Cleaning

NOTE

The luminaire is marked with the warning "Clean with damp cloth only".

- Clean the device only with a damp cloth.
- Use water or mild cleaning agents.
- Do not use abrasive, scratching and aggressive detergents or solvents.
- Never clean the device with a strong water jet, e.g. using a high-pressure washer!


11.2 Returning the device

Use the "Service form" to return the device when repair/service is required. On the internet site "www.stahl-ex.com" under "Downloads > Customer service":

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

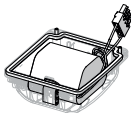
12 Disposal


- 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.

	CAUTION
	<p>Danger due to chemical reactions! Human health and the environment are at risk!</p> <p>Batteries</p> <ul style="list-style-type: none"> • collect them separately • dispose of them in controlled fashion • do not dispose of them in the domestic waste • return them to public collection points or to the supplier

13 Accessories and Spare parts

NOTICE	
<p>Malfunction or damage to the device due to the use of non-original components. Non-compliance can result in material damage.</p> <ul style="list-style-type: none"> • Use only original accessories and spare parts from R. STAHL Schaltgeräte GmbH. 	

	Figure	Description	Art. no.	Weight kg
Battery set	 16332E00	Battery cover with built-in battery. Gas-tight NiCd battery; 7 Ah / 6 V	223532	1.195

	For others, see data sheet on homepage www.stahl-ex.com .
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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: **LED Notlichtleuchte**
that the product: *LED Emergency light fitting*
que le produit: *LED Luminaire de secours*

Typ(en), type(s), type(s): **6009/1**

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 2014/34/EU 2014/34/UE	ATEX-Richtlinie <i>ATEX Directive</i> <i>Directive ATEX</i>	EN 60079-0:2012 + A11:2013 EN 60079-1:2014 EN 60079-7:2015 EN 60079-18:2015 EN 60079-28:2015 EN 60079-31:2014
Kennzeichnung, marking, marquage:		<div>II 2 G Ex db eb mb op is IIB+H₂ T4 Gb</div> <div> II 2 G Ex db eb mb op is IIC T4 Gb</div> <div>II 2 D Ex tb op is IIIC T 100 °C Db</div> <div>CE 0158</div>
EU-Baumusterprüfbescheinigung: <i>EU Type Examination Certificate:</i> <i>Attestation d'examen UE de type:</i>		IBExU 16 ATEX 1199 (IBExU Institut für Sicherheitstechnik GmbH Fuchsmühlenweg 7, 09599 Freiberg, Germany)
Produktnormen nach Niederspannungsrichtlinie: <i>Product standards according to Low Voltage Directive:</i> <i>Normes des produit pour la Directive Basse Tension:</i>		EN 60598-1:2015 EN 60598-2-22:2015 EN 62471:2008 EN 62493:2010
2014/30/EU 2014/30/EU 2014/30/UE	EMV-Richtlinie <i>EMC Directive</i> <i>Directive CEM</i>	EN 61547:2009 EN 55015:2013 + A1:2015 EN 61000-3-2:2014 EN 61000-3-3: 2013
2011/65/EU 2011/65/EU 2011/65/UE	RoHS-Richtlinie <i>RoHS Directive</i> <i>Directive RoHS</i>	EN 50581:2012

Waldenburg, 2017-09-11

Ort und Datum
Place and date
Lieu et date

i.V.

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