Operating instructions EN

Additional languages www.stahl-ex.com

Linear Luminaire with LED

Series EXLUX 6002

STAHL

EN

Contents

EN

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
E-mail: info@stahl.de

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

Phone: +91 44-30 600 600
Fax: +91 44-30 600 700
Internet: www.rstahl.net
E-mail: sales@rstahl.net

Manufacturer

R. STAHL Schaltgeräte GmbH
Business Unit Lighting & Signalling
Nordstr. 10
99427 Weimar
Germany

Phone: +49 3643 4324
Fax: +49 3643 4221-76
Internet: www.stahl-ex.com
E-mail: info@stahl.de

1.2 Information regarding the operating instructions

ID-No.: 251941 / 600260300020
Publication Code: 2017-08-07·BA00·III·en·02

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 EU Declaration of Conformity: www.stahl-ex.com.
The device has IECEx approval. See IECEx homepage: http://iecex.iec.ch/

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

EN

	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 0158 05594E00	CE marking according to the currently applicable directive.
Ex 02198E00	According to marking, device approved for hazardous areas.

3 Safety notes

3.1 Operating instructions storage

- Read the operating instructions carefully and store them 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 6002 is equipment

- for stationary mounting
- for use in Zones 1, 21, 2, 22 and in the safe area
- can be used indoors and outdoors
- for lighting areas, work spaces and objects

3.4 Modifications and alterations

	DANGER
EX	Explosion hazard due to modifications and alterations to the device! Non-compliance results in severe or fatal injuries. • Do not modify or alter the device. No liability or warranty for damage resulting from modifications and alterations.

EN

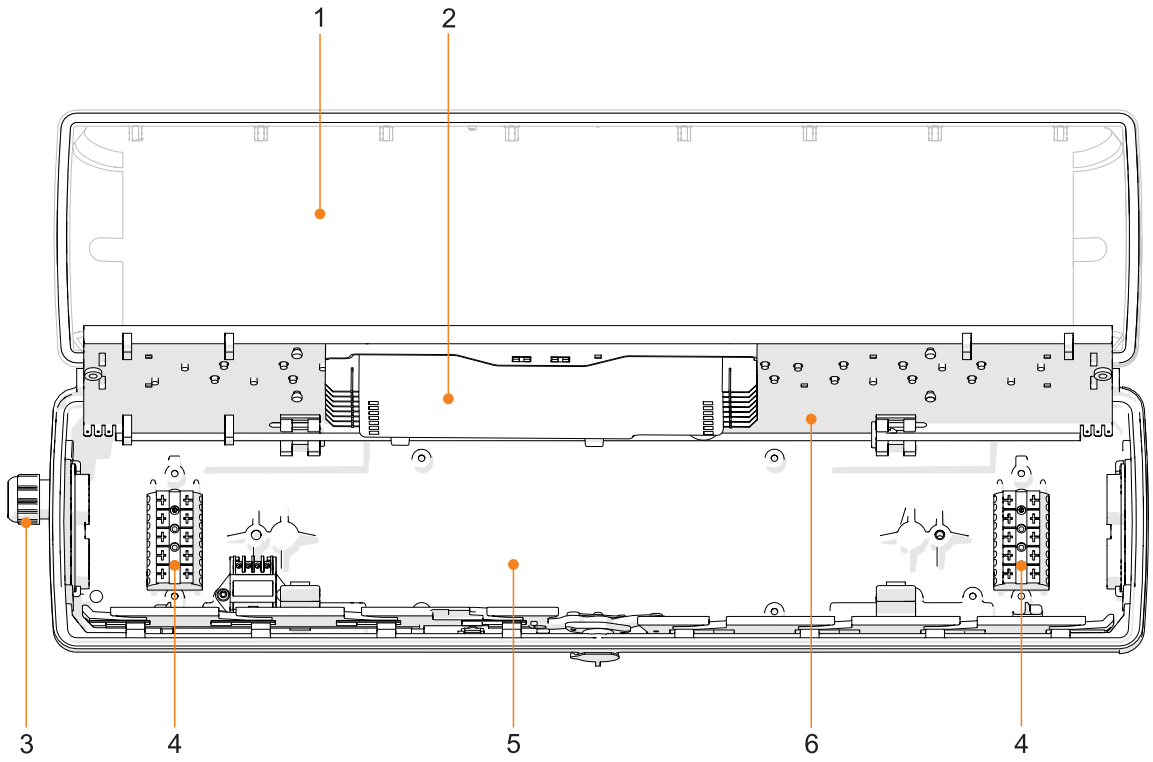
4 Function and device design

	DANGER
EX	Explosion hazard due to improper use! Non-compliance results in severe or fatal injuries. • Use the device only according to the operating conditions described in these operating instructions.

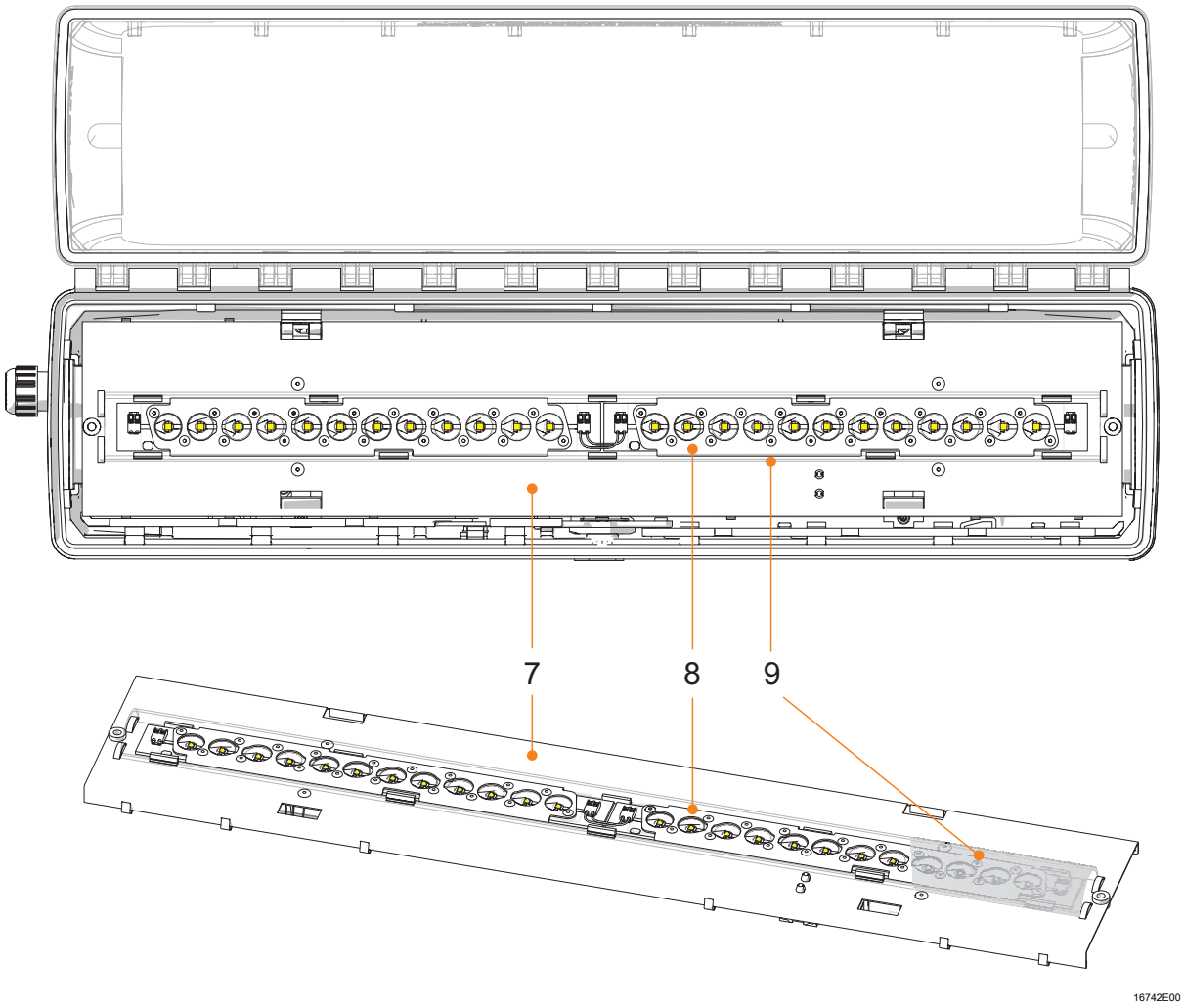
4.1 Function

- for lighting areas, work spaces and objects
- switching off the equipment by means of a central lock (standard version) when the luminaire is opened

4.2 Device design



EN



1 - Translucent cover	6 - Mounting plate (bottom side)
2 - Ballast	7 - Mounting plate (top side)
3 - Cable gland	8 - LED PCB
4 - Connection terminal - luminaire (customer wiring)	9 - Diffuser (optional / accessories)
5 - Luminaire enclosure	

EN

5 Technical data

Explosion Protection

Global (IECEx)		
Gas and dust	IECEx IBE 14.0035 Ex db eb op is IIB+H_2 T4 Gb Ex tb op is IIIC T100°C Db	IECEx IBE 14.0035 Ex db eb op is IIC T4 Gb Ex tb op is IIIC T100°C Db
Europe (ATEX)		
Gas and dust	IBExU 14ATEX1088 ⟨Ex⟩ II 2 G Ex db eb op is IIB+H_2 T4 Gb ⟨Ex⟩ II 2 D Ex tb op is IIIC T100°C Db	IBExU 14ATEX1088 ⟨Ex⟩ II 2 G Ex db eb op is IIC T4 Gb ⟨Ex⟩ II 2 D Ex tb op is IIIC T100°C Db
Certifications and certificates		
Certificates	IECEx, ATEX, India (PESO), Kazakhstan (TR), Russia (TR), Belarus (TR)	IECEx, ATEX, India (PESO), Kazakhstan (TR), Russia (TR), Belarus (TR)

Technical Data

Electrical data

Control gear

AC: 110 V to 240 V ±10%; 50 to 60 Hz
DC: 110 V to 250 V ±10%

	6002/.1.2-....-....-.		6002/.2.4-....-....-.	
Power consumption [W]	28		52	
Voltage [V]	230	110	230	110
Frequency [Hz]	50	60	50	60
Power factor	> 0.90	> 0.99	> 0.95	> 0.99
THD [%]	< 8	< 12	< 6	< 6

Optionally available with DALI interface in accordance with IEC 62386-207:2009-08

Inrush current

I_{peak} = 51 A; Δt = 127 µs
maximum number of luminaires per miniature circuit breaker at 230 V:

Type	10 A	16 A	20 A	25 A
B	8	13	16	20
C	13	22	27	34
K	27	44	55	69

Technical Data

Luminous characteristics

	6002/.1.2-....-....-0	6002/.2.4-....-....-0	6002/.1.2-....-....-1	6002/.2.4-....-....-1
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]	2,850	5,700	3,150	6,300
Luminaire efficacy [lm/W]	102	110	113	121
with diffuser				
Luminous flux [lm]	2,350	4,700	2,600	5,200
Luminaire efficacy [lm/W]	84	90	93	100

Values apply to T_a = +25 °C.
Luminous flux decrease

- at T_a = +60 °C to ≥ 70 % of the nominal value.
- during DC operation to 50%.

Ambient conditions

Operating temperature range	-40 ... +60 °C luminaires without through wiring -40 ... +60 °C luminaires with through wiring; I_N ≤ 10 A -40 ... +50 °C luminaires with through wiring; I_N ≤ 16 A
Storage	-40 ... +75 °C

Service life

Service life

	T_a ≤ 25 °C	T_a ≤ 45 °C	T_a ≤ 60 °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
- up to "y" percent of all luminaires fall below "x"
- up to "z" percent of all luminaires break down completely

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	

EN

Technical Data

Material	Polyester resin, glass fibre-reinforced
Colour	colour grey, similar to RAL 7035
Seal	Silicone foam gasket in the lamp cover
Translucent cover	Polycarbonate
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 glands 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 bores for M20, M25, NPSM ½''
max. 2 bores 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: Cage clamp terminals
5-pole: L1, L2, L3, N, PE
Clamping range:
1 x 0.75 to 4 mm^2 (solid / finely stranded)
(2 free clamping units per pole available)

Special version: Terminal block with cover
5-pole: L1, L2, L3, N, PE
Clamping range:
2 x 0.75 to 6 mm^2 (solid);
2 x 0.75 to 4 mm^2 (finely and extra finely stranded)

Luminaire with DALI: Cage clamp terminals
8-pole: L1, L2, L3, N, PE, D1, D2
Clamping range:
1 x 0.75 to 4 mm^2 (solid / finely stranded)
(2 free clamping units per pole available)

Through wiring

Standard luminaire **with**
Light fittings are equipped with internal through wiring.
Inlet and outgoing leads can be connected to the opposite sides.
Terminals: see tech. data
Wiring cross section of the
supply line connection: 2.5 mm^2 for max. 16 A

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

Technical Data

Assembly	**Standard luminaire** Standard: 2 x M8 insert nuts in the enclosure 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)

Other light colours on request:

Colour temperature [K]	Colour rendering [CRI]
4,000	≥ 80
5,700	≥ 70
6,500	≥ 70

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.

NOTICE

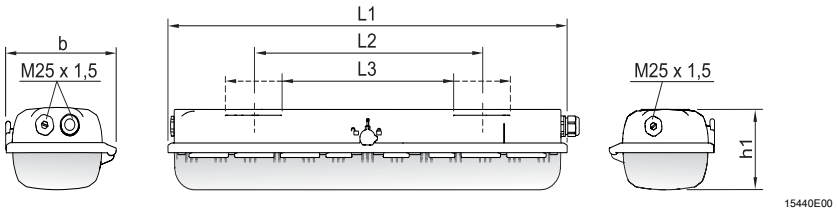
Malfunction or device damage caused by condensation.
Non-compliance can result in material damage!

- operate the luminaire continuously or periodically over extended periods of time.
- avoid thermal bridges.

EN

7.1 Dimensions / fastening dimensions

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



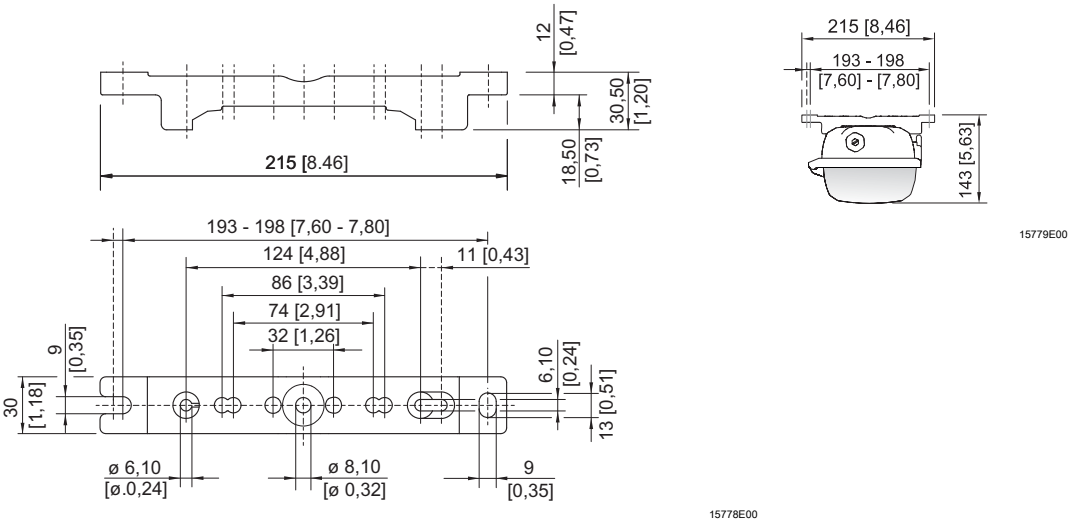
Dimensions	Luminaire	
	28 W	52 W
L1	700 [27.56]	1310 [51.57]
L2 [1)]	400 [15.75]	800 [31.50]
L3 [2)]	320 ... 480 [12.60 ... 18.90]	670 ... 930 [26.38 ... 36.61]
b	184 [7.24]	184 [7.24]
h1	125 [4.92]	125 [4.92]

[1)] fixed mounting distance

[2)] variable mounting distance

EXLUX 6002 Standard luminaire

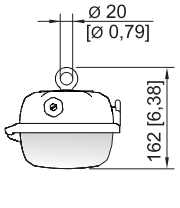
Dimensional drawings for assembly parts and accessories (all dimensions in mm [inches]) Subject to alterations



Mounting rail

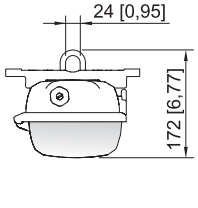
EN

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



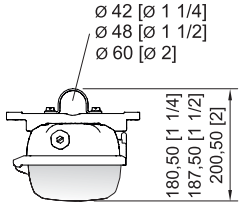
15782E00

Ring bolt fitted in insert nut of the luminaire



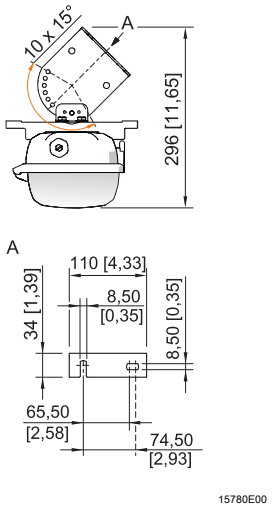
15781E00

Mounting bracket fitted in mounting rail



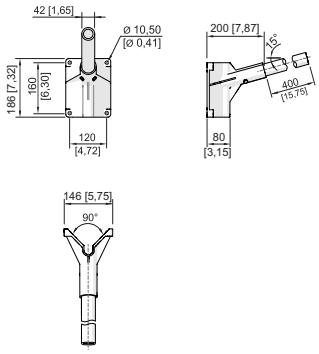
15783E00

Pipe clamp fitted in mounting rail



15780E00

Wall mounting bracket fitted in mounting rail



03257E00

Bracket for wall mounting with pipe section

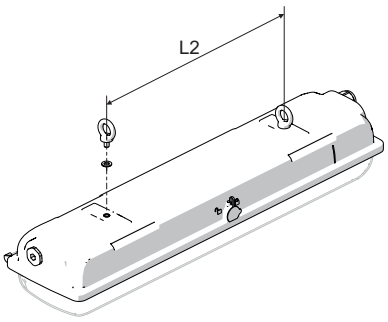
7.2 Mounting / dismounting, operating position

	DANGER
EX	Explosion hazard due to electrostatic discharge Non-complicance results in severe or fatal injuries. Do not use the luminaire in strong charge generating environments! The following processes/activities should be avoided: • accidental friction • particle currents

EN

EX	**DANGER** Explosion hazard due to inadmissible heating! Non-compliance results in severe or fatal injuries. • Avoid external heat sources and/or direct sunlight (risk of change of temperature class or change of maximum permissible surface temperature). • Do not exceed the maximum ambient temperature due to external heat sources (premature failure of equipment).
i	The luminaire is suitable for wall and ceiling mounting. In event of wall mounting in outdoor areas, avoid installation with central lock at top. The mounting position with upward light emission in outdoor areas is prohibited.

Suspension at fixed mounting points

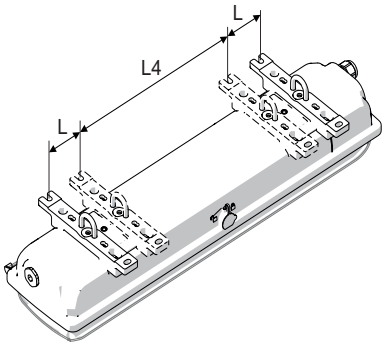


15446E00

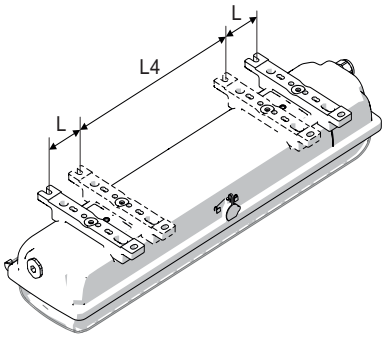
Version	L2 mm [inch]	Screw-in depth mm
28 W	400 [15.75]	≤ 10 [0.39]
52 W	800 [31.50]	≤ 10 [0.39]

EN

Suspension at movable mounting parts



15442E00



15447E00

Mounting bracket Top rail

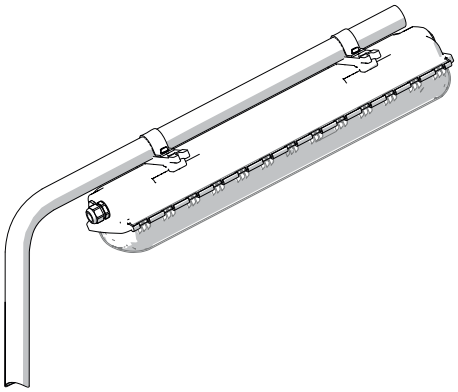
Lateral mounting pockets for variable points of suspension.

Version	L4 mm [inch]	L mm [inch]
28 W	320 [15.60]	80 [3.15]
52 W	670 [26.38]	130 [5.12]

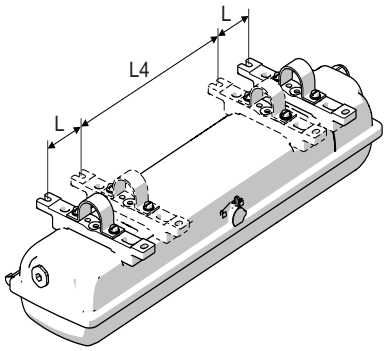
When mounting the luminaire using top rails, ensure that the mounting surface is flat. Otherwise, the enclosure might be mounted in a warped/twisted way. The result is leakage of the luminaire and difficulties in replacing the translucent cover.

Pole mounting

Pole mounting using pipe clamps



15455E00



15443E00

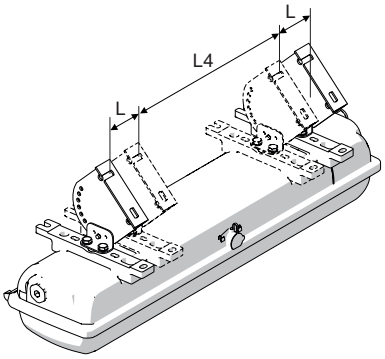
Version	L4 mm [inch]	L mm [inch]
28 W	320 [12.60]	80 [3.15]
52 W	670 [26.38]	130 [5.12]

In case of point suspension using pipe clamps, R. STAHL Schaltgeräte GmbH does not guarantee the strength and tightness of the luminaire!

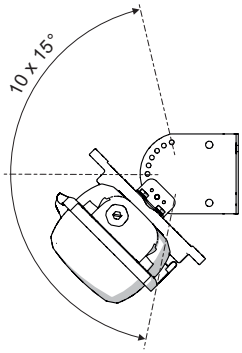
EN

For pipe clamp mounting, use the solution of R. STAHL Schaltgeräte GmbH with integrated mounting rail providing reliable and stable four-point fixing!

Wall bracket mounting



15515E00



15517E00

Version	L4 mm [inch]	L mm [inch]
28 W	320 [12.60]	80 [3.15]
52 W	670 [26.38]	130 [5.12]

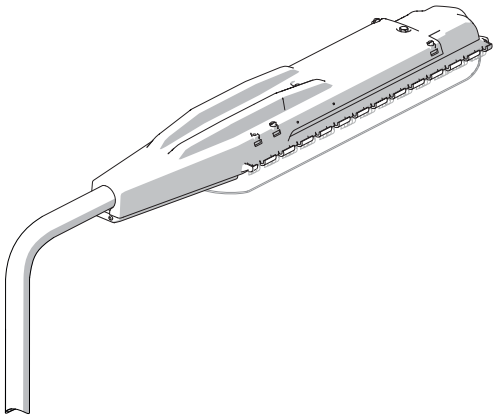
i	When mounting the luminaire using top rails, ensure that the mounting surface is flat. Otherwise, the enclosure might be mounted in a warped/twisted way. The result is leakage of the luminaire and difficulties in replacing the translucent cover.

i	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!

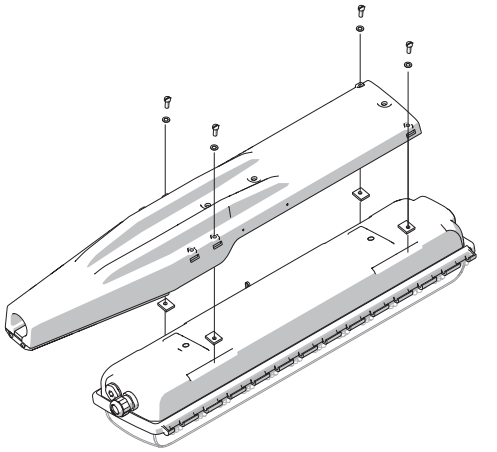
EN

Pole mounting using pole mounting sleeve

	Only for luminaires length 700 mm and 1310 mm.



17761E00



17762E00

7.3 Installation

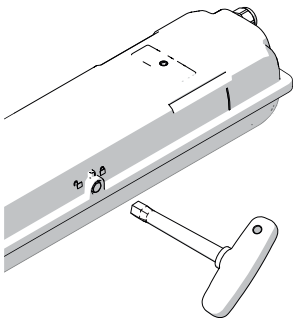
7.3.1 Opening and Closing of the Enclosure

	DANGER
	Risk of electric shock! Risk of fatal injuries! • Luminaires without switch must not be opened when they are supplied with power (see information plate on the lock)!

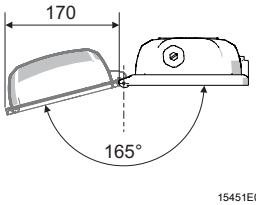
NOTICE
Danger due to electrostatic discharge. Electronic components can be destroyed if touched. • Do not touch the LED-PCBs!

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

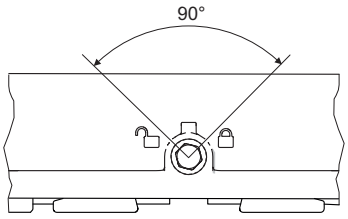
EN



15448E00



15451E00



15436E00

- 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 (dust protection).

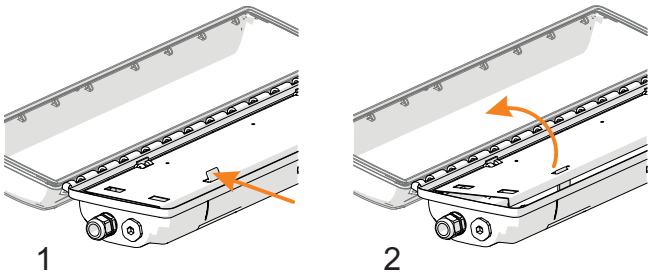
Note:

- Version without switch: Disconnect the luminaire from the power supply and secure it against being switched on again.
- 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



15512E00

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.

EN

7.3.2 Electrical connections

Electrical connection

Observe the maximum clamping possibility of the connecting terminals (see chapter "Technical data").
For optional screw terminals, two conductors per clamping unit can be clamped (ingoing and outgoing wiring).

Observe the following when connecting to the main supply:
- Clamping must be carried out precisely!
- Do not clamp any part of the conductor insulation!
- Do not interchange the conductors!
- Observe the technical regulations when connecting the conductor!
- Clamp the conductor firmly.
- Do not remove the terminal cover of optional screw terminals to clamp the conductor!
- Optional screw terminals: Firmly tighten screws (tightening torque 1.5 Nm, for unused clamping units 0.7 Nm)!

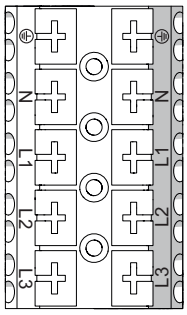
DALI connector
- Polarity of the DALI control line does not need to be observed.
- Resistant to mains voltage

Connection terminals

Standard:
Cage clamp terminals

Clamping range:
0.75 to 4 mm^2 solid / finely stranded
(2 free clamping units per pole available)

Stripping length:
10 to 11 mm

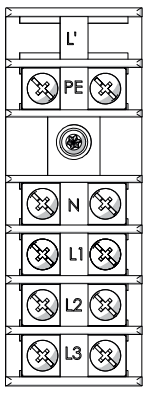


15516E00

Optional:
Screw terminals

Clamping range:
0.75 to 4 mm^2 finely and extra finely stranded
0.75 to 6 mm^2 solid
(2 free clamping units per pole available)

Stripping length:
10 to 11 mm



15438E00

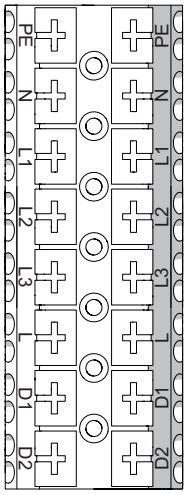
L1, L2, L3	= phase
N	= neutral conductor
PE	= protective conductor

EN

Luminaire with DALI connection:
Cage clamp terminals

Clamping range:
0.75 to 4 mm^2 solid / finely stranded
(2 free clamping units per pole available)

Stripping length:
10 to 11 mm



18732E00

L1, L2, L3	= phase
N	= neutral conductor
PE	= protective conductor
D1, D2	= DALI connection
L‘	= non-functional

Through wiring of the mains supply connection

NOTICE
Through wiring with 2.5 mm^2 cross section for max. 16 A.

EN

7.3.3 Cable entries

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

Tightening torques for components from R. STAHL Schaltgeräte GmbH

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

		Tightening torque	
		Connection thread	Pressure screw
Cable entry 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 entries and stopping plugs; not supplied by R. STAHL Schaltgeräte GmbH

DANGER

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

- Only use separately certified cable entries and stopping plugs.

Please observe the following:

- the required dust resistance!
- the required type of protection!
- the required temperature resistance!
- the IP degree of protection according to the rating plate!
- the operating instructions of the cable entries and stopping plugs!
- the required tightening torques!
- the range of the permissible cable diameter!

EN

8 Commissioning

DANGER

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

Before commissioning, ensure that
- the device has been installed according to regulations.
- the power supply voltage and the rated operational voltage are identical.
- the required cable diameter for cable glands has been used.
- the cable entries and stopping plugs have been securely tightened.
- the cables are correctly connected.
- the connection has been performed correctly.
- all screws and nuts are tightened according to regulations.
- the connection chamber is clean.
- the device is not damaged.
- no foreign bodies are inside the device.
- the device is sealed according to regulations.
- the LED assembly and the diffusor are clean.

EN

9 Maintenance and repair

WARNING

Risk of electric shock or malfunctioning of the device due to unauthorized work!
Non-compliance can result in severe injuries and material damage.
- Work performed on the device must only be carried out by appropriately authorized and qualified electricians.

9.1 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	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	clamp loose conductors tightly.
the cables for ageing and damage	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.

EN

9.1.1 Cleaning

	DANGER
	Explosion hazard due to electrostatic discharge! Accidents or fatal injury are almost certain to happen! • Clean the device with a 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!

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.

Repairs carried out on the mounting plate are not permitted. Replace the mounting plate completely in case of malfunction.

9.3 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.

10 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.

11 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 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: *that the product:* *que le produit:*	**LED Langfeldleuchte** *LED Linear Luminaire* *LED Luminaire Linéaire*
Typ(en), *type(s), type(s):*	**6002/1...** **6002/2...**

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** *2014/34/EU* *ATEX Directive* *2014/34/UE* *Directive ATEX*	EN 60079-0:2012 + A11:2013 EN 60079-1:2014 EN 60079-7:2015 EN 60079-28:2015 EN 60079-31:2014
Kennzeichnung, *marking, marquage:*	**II 2 G Ex db eb op is IIB+H_2 T4 Gb** **II 2 G Ex db eb op is IIC T4 Gb** **II 2 D Ex tb op is IIIC T 100 °C Db** CE 0158
EG/EU-Baumusterprüfbescheinigung: *EC/EU Type Examination Certificate:* *Attestation d'examen UE/CE de type:*	**IBExU 14 ATEX 1088** (IBExU Institut für Sicherheitstechnik GmbH Fuchsmühlenweg 7, 09599 Freiberg, Germany)
Produktnormen nach Niederspannungsrichtlinie: *Product standards according to Low Voltage Directive:* *Normes des produit pour la Directive Basse Tension:*	EN 60598-1:2015 EN 60598-2-22:2014 EN 62471:2008 EN 62493:2010
2014/30/EU **EMV-Richtlinie** *2014/30/EU* *EMC Directive* *2014/30/UE* *Directive CEM*	EN 61547:2009 EN 55015:2013 + A1:2015 EN 61000-3-2:2014 EN 61000-3-3:2013
2011/65/EU **RoHS-Richtlinie** *2011/65/EU* *RoHS Directive* *2011/65/UE* *Directive RoHS*	EN 50581:2012

Waldenburg, 2017-09-11
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