


Safety instructions



Danger!

Danger caused by wrong mounting or handling!

Wrong mounting or handling of this unit can result in serious injuries or death.

- First read these instructions and, where appropriate, any other instructions and information attached to the unit! 
- Please observe the warnings and notes included in the instructions and attached to the unit!



Danger!

This symbol identifies items that may directly result in serious injuries or death in case of non-observance or wrong handling.



Warning!

This symbol identifies items that may result in serious injuries or death in case of non-observance or wrong handling.



Caution!

This symbol identifies items that may result in injuries or material damage in case of non-observance or wrong handling.



Note!

This symbol identifies items that are of importance for handling and operation.

Safety instructions



Danger!

Explosion hazard!

Operating the light in rooms subject to explosion hazards can trigger an explosion.



Caution!

Risk of corrosion!

Operating the light in moist rooms can result in damage to the light!

- Operate in dry rooms not subject to explosion hazards only!



Caution!

Damage caused by wrong operating unit!

An unsuitable operating unit can result in destroying the light.

- Operate the light with the operating units proposed by the manufacturer only.
- Lights of international protection class III must be operated at safety extra low voltage only!



Caution!

Damage caused by wrong connection!

A wrong mains voltage or polarity can result in damaging or destroying the light.

- The connection must be carried out by a skilled electrician only!
- Before putting the light into operation, the user has to check whether the mains voltage is identical to the rated voltage specified on the rating plate!



The manufacturer cannot be held liable for damage caused by using the unit for purposes contrary to the designated use or by ignoring safety instructions and warnings.

General

**Designated use:****Intended purpose:**

This universally applicable light strip has been developed especially for illuminating elongated areas (e.g. as a marker in corridors).

Place of use:

The light may only be operated in dry rooms not subject to explosion hazards.

Operating mode:

The light is designed for continuous operation.

Abbreviations and symbols

Safety information!



Important information!



Unit corresponds to international protection class II (all-insulated)



Unit corresponds to international protection class III (Operation with safety extra low voltage (SELV))



Observe the disposal instructions!



The light is suitable for mounting on normally inflammable surfaces

LED light-emitting diode



VDE approval



ENEC approval



SEV approval



CE
Conformity mark



The manufacturer cannot be held liable for damage caused by using the unit for purposes contrary to the designated use or by ignoring safety instructions and warnings.

Introduction

SLIM LED

The light strip **SLIM LED** has been developed as a universally applicable LED. It is available in different lengths and with a different number of LEDs. Of each individual length, a swivelling and non-swivelling version is available. All variants are available either without cover, with a clear cover or with a satin cover.

The light emitted by the light depends on the density (number per unit length) and the power of the LEDs.

The use of light-emitting diodes (LED) guarantees a significantly higher useful life.

The light is encapsulated and therefore absolutely maintenance-free. It is resistant to the ingress of liquids and insensitive to normal mechanical stress.

The light is supplied with free strand ends for connection to safety extra low voltage (SELV).

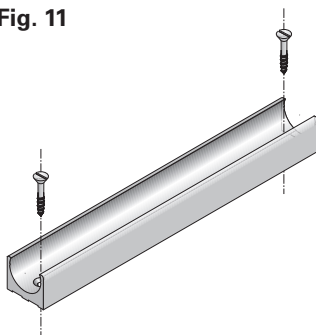
Note: These instructions describe the swivelling version.

LIQ xx* = Non-swivelling light

LIQ xx** = Swivelling light

Mounting 1

Fig. 11



General

The light has been designed as stationary light.

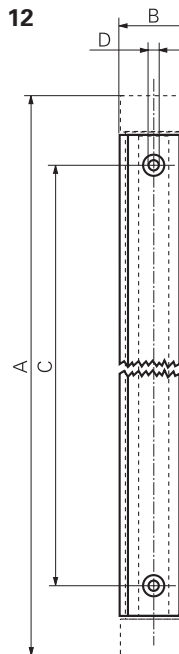


Note!

Danger of damaging the light!

- Mount light, using suitable aids, at the selected mounting surface such that falling down is prevented.
- Make sure that the cable [2.4] is laid in such a way that it cannot be damaged!

Fig. 12



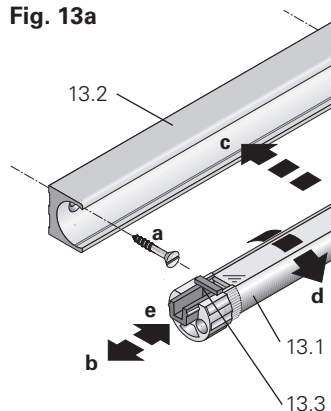
Mounting steps

- a) For the fastening distance (C), please refer to the table below.
- e) Mount the light holder to the selected surface using suitable screws (see Fig. 11).

Light	A	B	C	D
LIQ 6	196	22.5	150	3.4
LIQ 10	196	22.5	150	3.4
LIQ 12	336	22.5	290	3.4
LIQ 20	336	22.5	290	3.4
LIQ 24	616	22.5	570	3.4
LIQ 36	896	22.5	850	3.4
LIQ 40	616	22.5	570	3.4
LIQ 48	1176	22.5	1130	3.4
LIQ 60	896	22.5	850	3.4
LIQ 80	1176	22.5	1160	3.4

Mounting 2

Fig. 13a

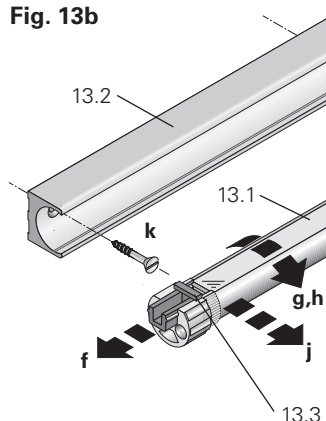


General

After mounting the light holder [13.2], the light module [13.1] can be inserted (see Fig. 13a):

- b) Push the slide [13.3] outwards.
- c) Insert the light module [13.1] into the light holder [13.2].
- d) Swivel the light module [13.1] by 90° (the light exit side must point forward).
- e) Push the slide [13.3] inwards.

Fig. 13b



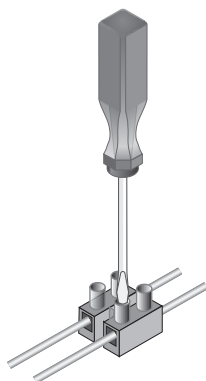
Dismounting

In order to dismount the light, the light module [13.1] must be removed from the light holder [13.2].

Proceed as follows:

- f) Push the slide [13.3] outwards.
- g) Swivel the light module [13.1] to such an extent that the light exit side points forward.
- h) Swivel the light module [13.1] by 90° again.
- j) Take out the light module [13.1] forwards.
- k) Dismount the light holder [13.2].

Connection



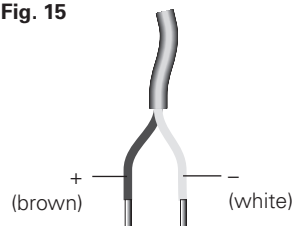
Caution!

Damage caused by wrong connection!

An unsuitable operating unit or a wrong connection can result in destroying the light.

- Operate the light with the operating units proposed by the manufacturer only.
- The connection must be carried out by a skilled electrician only.
- Ensure correct polarity (see Fig. 15).
- Connect the light modules only with the operating unit switched off.

Fig. 15



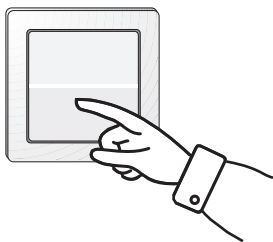
Operating unit

The light is supplied with free strand ends for connection to 24 V DC.

The following protective measures must be guaranteed when operating units are used:

- Short circuit protection
- Overload protection
- Excess temperature protection

Function



Switching ON/OFF

The light is not equipped with a switch of its own. It is switched on/off via external switches or connectors.

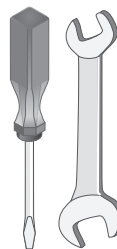
Dimming

If suitable operating units are used, the light can be dimmed (pulse-width modulation - PWM).

Swivelling

The light can be swivelled upwards or downwards out of its centre position by about 24°.

Maintenance and repair



The LED band used in the light is completely encapsulated.

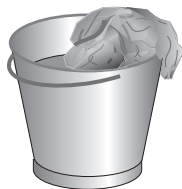
Maintenance

The light is completely maintenance-free.

Repair

A repair (e. g. in case of failure of single LEDs) is not possible.

Care



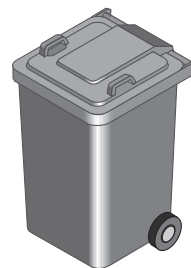
Note!

Risk of damage through wrong care!

Wrong care may destroy the unit.

- Clean the transparent cover at regular intervals!
- Clean the light parts with a cloth impregnated with a suitable household cleaning agent only!
- Make sure the agents used are compatible with paints and plastics!

Disposal



Note!

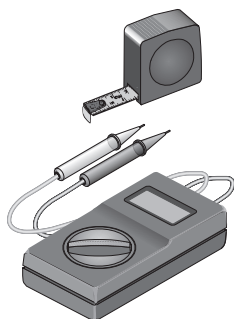
Environmental hazard!

Wrong disposal endangers our environment.

- Return the unit at the end of its useful life to the available recycling systems!



Technical data



General:

Protection class	III
Protection type	IP67
Operating mode:	Continuous operation
Technical safety check	according to EN 60598-1

Dimensions:

Length	depending on the type
Width	22.5 mm
Height	22.6 mm
Connecting cable	approx. 3,000 mm

Electric connection

Operating voltage	23-25 V DC
Power	depending on the version

Values dependent on the light:

LIQ 6 (6 LEDs)	
Power	approx. 4 W
LIQ 10 (10 LEDs)	
Power	approx. 2 W
LIQ 12 (12 LEDs)	
Power	approx. 8 W
LIQ 20 (20 LEDs)	
Power	approx. 3 W
LIQ 24 (24 LEDs)	
Power	approx. 15 W
LIQ 36 (36 LEDs)	
Power	approx. 22 W
LIQ 40 (40 LEDs)	
Power	approx. 6 W
LIQ 48 (48 LEDs)	
Power	approx. 29 W
LIQ 60 (60 LEDs)	
Power	approx. 9 W
LIQ 80 (80 LEDs)	
Power	approx. 12 W



Caution!

Risk of damage due to differences from the standard design.

If required, this series of units will be supplemented by further variants. The technical data may therefore be subject to modifications.

- Always observe the data and symbols given on the rating plate!