

- **C:** Kleine Schrumpfschläuche mit einer Heißluftpistole (100 °C) auf die Steckverbindung aufschumpfen. Nach dem Abkühlen den großen Schrumpfschlauch (7) mittig über die Steckverbindung schieben.
- **D:** Großen Schrumpfschlauch (7) auf die Steckverbindung aufschrumfen, bis der Kleber auf beiden Seiten austritt und den Leitungsmantel dicht umschließt. Die Überdeckung von Schrumpfschlauch und Leitungsmantel muss nach dem Schrumpfvorgang beidseitig mindestens 10 mm betragen.
- Adapterleitung abmanteln und an die Zuleitung anschließen.

Technische Daten

Nennspannung	AC 230 V~
Netzfrequenz	50 Hz
Leistungsaufnahme pro Meter	ca. 10 W
Leistungsfaktor	0,52 ... 0,6
Schutzart	IP 64
Schutzklasse	II
Umgebungstemperatur	-20...+45 °C
Lager-/ Transporttemperatur	-25 ... +60 °C
Lebensdauer (L80 B10)	60.000 h (@25°C)

Zubehör

Anschluss-Set IP67 230V	Art.-Nr. 58928010
Leitungsverbinder-Set IP67	Art.-Nr. 58928012
Isolierfolie il4010 Ausgleichs- und Endelement	Art.-Nr. 88900085
Isolierfolie il4010 Tragschiene	Art.-Nr. 88900086

Gewährleistung

Technische und formale Änderungen am Produkt, soweit sie dem technischen Fortschritt dienen, behalten wir uns vor.

Wir leisten Gewähr im Rahmen der gesetzlichen Bestimmungen.

Bitte schicken Sie das Gerät portofrei mit einer Fehlerbeschreibung an unsere zentrale Kundendienststelle:

Instalighting GmbH

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58509 Lüdenscheid
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LEDLUX LH linear

Safety instructions

Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Fire hazard. Do not connect any other consumers apart from the LED light inserts of type "LEDLUX LH" (version 01) to the output line.

Danger of destruction. For brightness control use only dimmers, that are approved for operation with this LED product (dimmer compatibility list see www.instalighting.de)

Do not use luminaire to illuminate workstations with rotating machine parts.

Avoid bending of the light inserts. This can cause damage. Light inserts with a lengths of more than two meters must always be handled by two persons.

The connecting cable is not exchangeable. If the connecting cable is damaged, replace the entire luminaire.

These instructions are an integral part of the product, and must remain with the end customer.

Device components

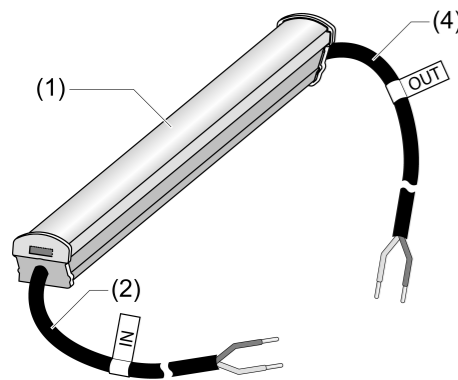


Figure 1

- (1) LED lighting insert
- (2) Input cable
- (4) Output cable

Function

Intended use

- Linear LED light insert for direct connection to AC 230 V~ mains voltage.
- Dimmable via conventional dimmers, that are designed for LED loads (listing of compatible dimmers see www.instalighting.de)
- Mounting indoors or in protected outdoor areas (IP64).

- i** Available light colours and beam angles see current data sheet at www.insta.de
- i** When mounted in outdoor areas, provide additional protection against heavy rain (e.g. facade profile instalight 4010).

Lamps

Maintenance free high-performance LED lamp with integrated power supply unit. The LED lamps in the light insert cannot be replaced. If it is defective, exchange the entire light insert.

Cleaning

Do not use any aggressive, organic or abrasive cleaning agents to clean the luminaire! Do not wipe acrylic glass optics dry!

Before cleaning, switch the luminaire off and let it cool down. Clean the luminaire housing with a moistened soft towel. Wipe acrylic glass optics carefully with a moistened soft towel. Remove stubborn stains with a few drops of detergent or acrylic glass cleaner.

Information for electrically skilled persons

Fitting and electrical connection

Mounting the LED light insert

- i** When mounted in an easily accessible installation environment, the LED light insert must be protected against mechanical damage by additional construction measures.
- i** To simplify mounting as much as possible, we recommend using the retaining bracket 81081710 (Figure 2). The retaining bracket 81081700 is available as an option for particularly small installation environments. However, this also requires the use of additional spacers (Figure 3).
- Mount the retaining brackets on the substrate in accordance with the drawing. Use at least three brackets for each metre of LED lamp.
- Push the LED light insert into the retaining brackets until it locks.
- After locking, do not push the LED light insert into the brackets any further. This can cause damage to the plastic profile.

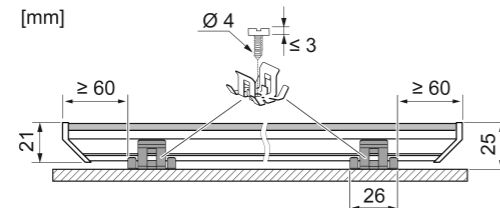


Figure 2: Mounting with bracket 81081710

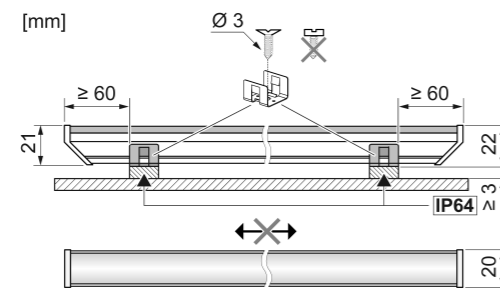


Figure 3: Mounting with bracket 81081700



DANGER!

Electrical shock on contact with live parts in the installation environment.

Electrical shocks can be fatal.

Before working on the device, disconnect the power supply and cover up live parts in the working environment.

Dismantling the LED light insert

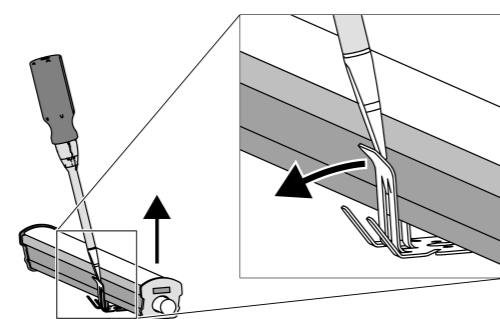


Figure 4: Dismantling the LED light insert

- Using a suitable tool (e.g. small screwdriver), bend the locking noses of the retaining brackets outwards.
- Remove the LED light insert out of the retaining bracket in an upwards direction.
- i** When using the retaining bracket 81081700, dismantling is only possible when the bracket can be accessed from the side.

Connecting LED light insert – General notes



WARNING!

Unsealed shrink connection with soiled connecting cable.

Before mounting the shrink tubing, clean connecting cable thoroughly and degrease.



WARNING!

Improper routing may damage the connecting cable.

When routing the cable, comply with the minimum bend radius.

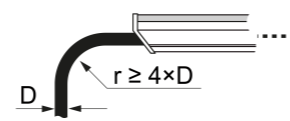


Figure 5: Minimum bend radius of the connection cable

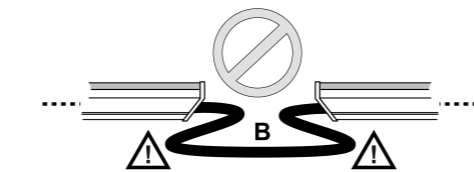
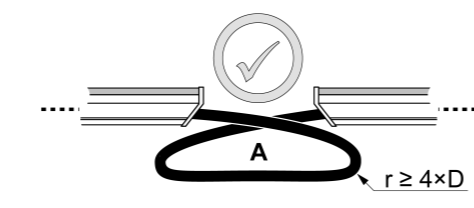


Figure 6: Observe the cable routing for chain-linking:

- A:** Correct cable routing
- B:** Incorrect cable routing

- i** The power circuit to connect the LED light inserts must be equipped with an residual current protective device (RCD).
- i** Observe the maximum number of LED light inserts per chain and circuit (see dimensioning).
- i** For all electrical connections use the connection kit 58928012 (see Accessories).
- Connect the LED lighting inserts according to the circuit diagram (Figure 7).

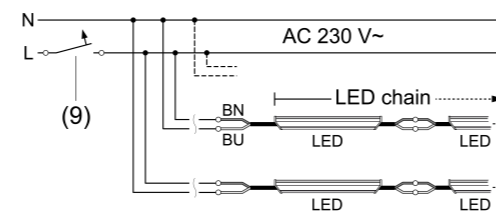


Figure 7: Circuit diagram

(9) Circuit breaker

Connection assignment

Wire colour	Connection
Blue (BU)	Neutral conductor (N)
Brown (BN)	Phase conductor (L)

Mounting in instalight 4010 profiles



WARNING!

Fatigue and breakage of the cable insulation due to too narrow bending radii.

Defective cable insulation can lead to electric shock.

Separate cable loops from the metal profile by inserting insulating foils.

If the LED light inserts are to be used in instalight 4010 profiles, proceed as follows.

- Place one of the supplied, pre-cut insulating foils No. 88900086 (10) under each cable loop (Figure 8)!

- In addition, cut the insulating foil 88900085 to size for the supporting rail compensation element set and the supporting rail end element set and place it under each cable loop
- Press the LED light inserts into the retaining clips inside of the supporting rail, until they lock (Figure 8).
- Maintain 10 mm spacing between two LED light inserts (Figure 9).
- Make sure the cable routing is correct! Connection lines must be routed in a loop centrally below both LED light inserts (Figure 9).

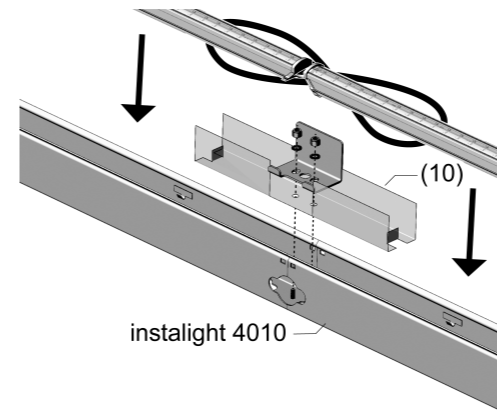


Figure 8: Insertion of the insulating foil

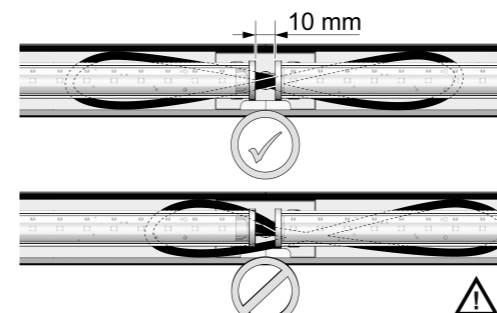


Figure 9: Alignment of the cable loops

Dimmer connection

The LED light inserts can be operated via conventional dimmers on the primary side. In doing so the following conditions must be fulfilled:

- Use only dimmers, that are approved for operation with LED products of type "LEDLUX LH" (version 01).
- Current listing of compatible dimmers see www.instalighting.de.
- Always set the dimmer to operating mode "trailing edge phase control". On dimmers with special LED operating modes, this mode is commonly signed with the symbol LED \square .
- Observe the maximum load related to the chosen dimmer (can differ from the data listed under "Dimensioning").
- Do not underrun the specified minimum brightness. This will cause flickering of the LED light inserts. If possible, store the minimum brightness inside the dimmer to the recommended value.

Dimensioning

The following table shows the maximum number of LED light inserts per chain and circuit according to the miniature circuit breaker used. All the values apply for a supply line of 10 metres (1.5 mm²) and an input and output cable of 1 metre (1.0 mm²) for each LED lamp.

Dimensioning according to the circuit breaker used (without switch-on current limiter)

Miniature circuit breaker (9)	Light inserts per chain	Light inserts total
B10	13 m	13 m
C10	18 m	20 m
D10	7.5 m	44 m
B16	20.5 m	20.5 m
C16	10 m	35 m
D16	4.5 m	70 m

- Observe the maximum current load capacity of an LED light insert of 1 A when linking LED light inserts.
- In case of operation on a dimmer, the chain lengths listed above can be limited by the maximum dimmer load (see "Dimmer connection").
- We recommend using a "B16" circuit breaker together with one or more switch-on current limiters for the maximum chain length and, at the same time, as many LED lights inserts are possible per circuit. Do not use an switch-on current limiter when operating with a dimmer.

Linking LED lighting inserts

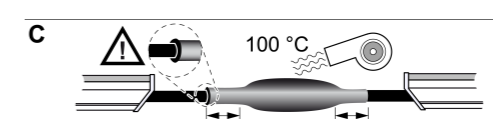
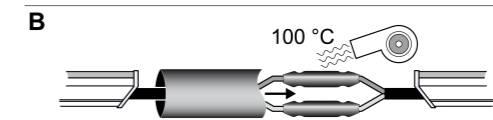
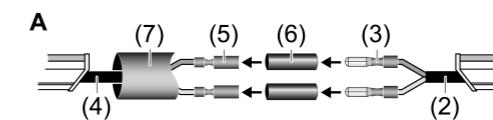


Figure 10: Linking LED lighting inserts

- A:** Push the large shrink tubing (7) onto the output cable (4). Then, push small shrink tubing (6) onto the plug sleeves (5) and push the round connectors (3) into the plug sleeves (5) until they engage.
- B:** Shrink small shrink tubing (6) onto the connector using a hot air pistol (100 °C). After cooling, slide the large shrink tubing (7) centrally over the connector.
- C:** Shrink the large shrink tubing (7) on the connection until the adhesive escapes on both sides and seals the line sheath tightly. The coverage of shrink tubing and line sheath must be at least 10 mm on both sides after the shrinking process.

Insulating the output cable

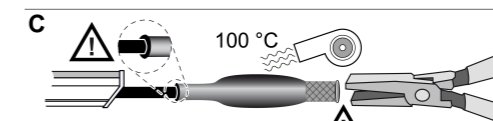
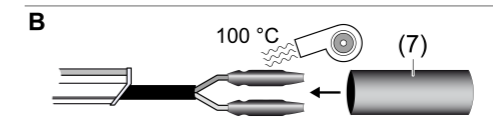
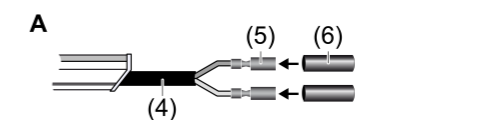


Figure 11: Insulating the output cable.

Unused output cables must be insulated.

- A:** Push small shrink tubing (6) onto the plug sleeves (5).
- B:** Shrink small shrink tubing (6) onto the connector using a hot air pistol (100 °C). After cooling, slide the large shrink tubing (7) centrally over the connector.
- C:** Shrink the large shrink tubing (7) on the connection until the adhesive escapes on the line side and seals the line sheath tightly. Press shrink tubing firmly together in warm state on the open side using flat pliers until the adhesive escapes and seals the opening completely.

Connecting the supply line

Precondition: All the LED lights inserts are linked and all the not used output cables are sealed.

- Use the connection set 58928010 to connect the supply line (see accessories).

LEDLUX LH linear Art. no. LL LH ... 01

Operating instructions



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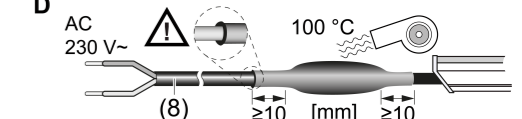
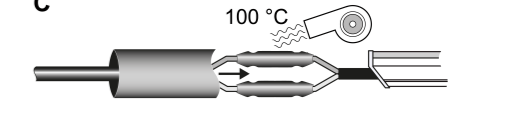
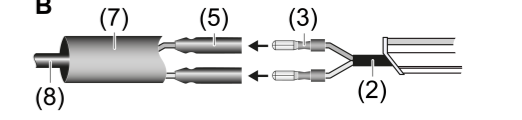
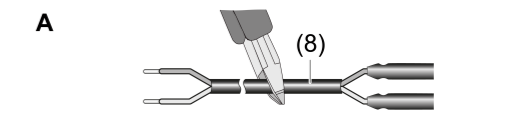


Figure 12: Connecting the supply line

- A:** Shorten adapter line (8) from the connection set to the required length.
- B:** Push the large shrink tubing (7) onto the adapter cable (8). Then, push the round connectors (3) into the plug sleeves (5) until they engage.
- C:** Shrink small shrink tubing (6) onto the connector using a hot air pistol (100 °C). After cooling, slide the large shrink tubing (7) centrally over the connector.
- D:** Shrink the large shrink tubing (7) on the connection until the adhesive escapes on both sides and seals the line sheath tightly. The coverage of shrink tubing and line sheath must be at least 10 mm on both sides after the shrinking process.
- Strip adapter line and connect to the supply line.

Technical data

Rated voltage	AC 230 V~
Mains frequency	50 Hz
Power consumption per metre	approx. 10 W
Power factor	0.52 ... 0.6
Degree of protection	IP 64
Protection class	II
Ambient temperature	-20...+45 °C
Storage/transport temperature	-25 ... +60 °C
Lifespan (L80 B10)	60,000 h (@25 °C)

Accessories

Connection kit IP67 230V	Art. no. 58928010
Cable connector kit IP67	Art. no. 58928012
Insulating foil il4010 compensating and end element	Art. no. 88900085
Insulating foil il4010 supporting rail	Art. no. 88900086

Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

We provide a warranty as provided for by law.

Please send the unit postage-free with a description of the defect to our central customer service office:

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