

fig. 1 - Wiring

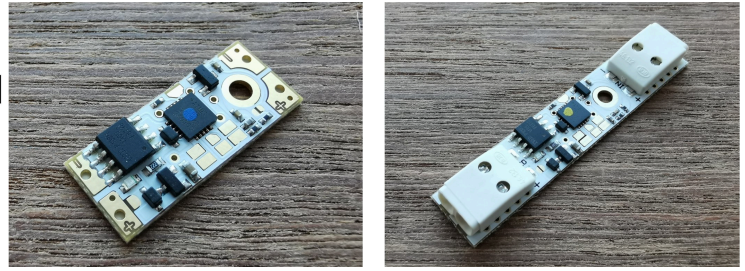


fig. 2.3 Soldering (L4ETD5), With terminal blocks (L4ETD5C)

## Area of Use

This dimmer is designed to be built into **aluminum profiles with LED strips**, where the profile simultaneously serves as a **touch sensor**. However, this method of control has certain limitations, and for proper function, the following conditions and restrictions must be observed:

- The light fixture must have a **high-quality, isolated power supply with double insulation** (two-wire connection to the mains) that is not shared with other light fixtures. It does **not work with grounded power supplies or when powered by a battery**.
- The power cable between the power supply and the light fixture must be **as short as possible (max. 2m)**, without unnecessary loops or connectors, with sufficient cross-section, and routed separately as far as possible from other electrical cables and appliances to prevent unwanted interference.
- The light fixture must consist of **1 piece of profile**. For multi-part fixtures, please use a different type of dimmer. The maximum length is **3m for 12V** power or **1.5m for 24V** power.
- The light fixture must be **isolated from its surroundings**. It must not touch walls anywhere. The minimum distance between the wall and the light fixture should be **2cm**. We recommend using this dimmer exclusively in light fixtures intended for **installation on furniture** (e.g., upper kitchen cabinets or shelves).

## Installation into the Profile

The **aluminum profile itself** with the LED strip serves as the touch sensor. Only use **anodized (galvanized) profiles**. Lacquered profiles are insulated by the layer of lacquer, and this dimmer will not function correctly in them. The dimmer is connected to the profile using the supplied **2.2mm stainless steel screw**, passed through the printed circuit board into a pre-drilled 1.9mm hole in the profile (see Fig. 4). Do not overtighten the screw to avoid damaging the printed circuit board. **Do not use galvanized screws**; zinc reacts with aluminum, which over time leads to incorrect dimmer function.

Soldering must be **clean and quick** to prevent damage to the printed circuit board or components. We recommend cleaning any flux residue from the printed circuit board with alcohol after soldering.



fig. 4 - Installation in the profile

## Indicator LED

A **LED** (available in yellow, blue, or a version without LED) is mounted on the printed circuit board, which illuminates constantly to indicate that power is connected. If you don't want this LED to light up, **short-circuit jumper J3** (see Fig. 1) very close to the LED strip output. When soldering the LED strip, bridge the adjacent pad with a drop of solder.

There are **shorting jumpers J1 and J2** on the printed circuit board (see Fig. 1), which allow you to set **4 operating modes**:

### 1. J1 open, J2 open (factory default)

This is the **standard dimmer mode**. After connecting power, the LEDs always remain off. A **short touch (min. 0.5s)** of the sensor will turn the LEDs on or off. The fade-in and fade-out are smooth. Immediately after turning on/off, it's essential to allow approximately a **1-second pause** before the next touch, otherwise, the touch will not be registered. Holding the sensor for longer than approximately **3 seconds** will cause the intensity to change smoothly. Releasing the sensor will stop at the current level. Upon re-activating dimming, the dimming direction will

reverse. At min/max levels, dimming will stop, and if the touch is not released within approximately **10 seconds**, the dimmer will turn off and restart.

## 2. J1 closed, J2 open

**Power failure memory.** This function is the same as above, but it remembers the last state at the moment of power loss. This state is automatically restored when power is reconnected. If the light was on during a power outage, it will automatically turn on when power is restored, and vice-versa.

## 3. J1 open, J2 closed

**Simple switch.** Dimming is disabled. One touch turns the light on, a second touch turns it off.

## 4. J1 closed, J2 closed

**Timer switch.** Dimming is disabled. Touching the sensor turns the light on, and it automatically turns off after the set time expires. Each touch during illumination resets the timer.

The time can be set from **1 second to 12 hours**.

**Time setting:** After connecting power, you have approximately **3 seconds** to initiate a time change. Touch and hold the sensor until the time setting is complete. After a while, the strip will start to **flash** (approx. 1 flash per 0.7s). Each flash will extend the set time by a step according to Table 1. After counting the desired number of flashes, release the sensor. The set time is stored in permanent memory even after power disconnection. The factory default is **10 seconds**.

Number of flashes:	1 - 10	11 - 20	21 - 29	30 - 39	40 - 45	46 - 54
Flash value:	1 s	5 s	1 min	5 min	20 min	1 hour
Total time:	10x = 10s	20x = 1 min	29x = 10 min	39x = 1 hod	45x = 3 hours	54x = 12 hod

Tab. 1 - timer setting

Version	Soldering	With terminal blocks
Dimensions	10 x 25 x 3mm	10 x 50 x 5mm
Supply voltage	12-24 V	
Max. current	7.5 A / 12 V, 4 A / 24 V	

Tab. 2 - Technical parameters

Order code	EAN	Description
L4ETD5B	8594220610009	Soldering with blue LED
L4ETD5Y	8594220610016	Soldering yellow LED
L4ETD5X	8594220610214	Soldering without LED
L4ETD5CB	8594220610108	With terminal blocks with blue LED
L4ETD5CY	8594220610115	With terminal blocks with yellow LED

Tab. 3 - List of supplied versions

Manufacturer:



**LED4est, s.r.o.**  
Na Hradčanech 536  
413 01 Roudnice nad Labem  
Czech Republic

**www.l4e.cz**  
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