

BOX-AC-DALI/LTC

The BOX-AC-DALI/LTC is a dedicated power conversion and control interface designed for DALI lighting sensors. It converts AC 100 to 240 V mains power to a DC 24 V output to power connected sensors while providing a DALI bus interface. When paired with the Mini series sensors, it enables direct control of DALI lighting—including switching, dimming, and color temperature adjustment—without the need for a central intelligent system. The compact design ensures easy commissioning and is suitable for concealed installation.



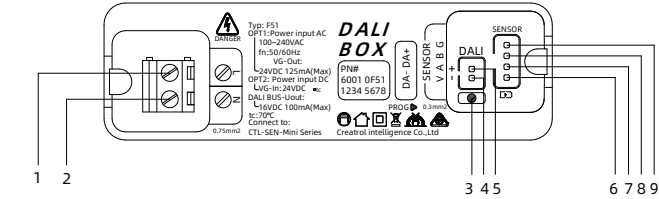
Features

- The unit supports two power supply methods: a wide-range AC input (100–240 V) or a low-voltage DC input (24 V) to accommodate diverse site requirements.
- Converts AC mains power into a regulated DC 24 V (125 mA Max) output to drive connected sensors.
- Provides a DC 16 V (100 mA Max) DALI bus output, allowing for direct control over luminaire switching, brightness dimming, and color temperature adjustment.
- Recommended for managing up to 25 DALI devices, though actual capacity is dependent on the specific current consumption of luminaire drivers on the bus.
- Its compact dimensions (84 mm * 21 mm * 26 mm) and ultra-lightweight design (34 g) make it ideal for concealed installation in restricted spaces.

Specifications

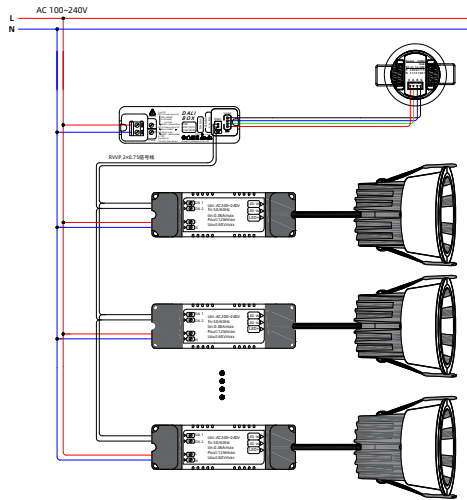
Input Voltage	AC 100 to 240 V or DC 24 V
Output Voltage	DC 24 V (Max 250 mA)
DALI Bus Output	DC 16 V (100 mA Max)
DALI Capacity	Recommended ≤ 25 devices (dependent on driver current consumption)
Dimensions	84 mm × 21 mm × 26 mm
Weight	34 g
Terminal Capacity	Terminal blocks (0.5 to 2.5 mm ²) and plug-in connectors
Housing Material	Flame-retardant PC (UL94 V-0)
Operating Temperature	-20 to 45°C (Indoor)
Storage Temperature	-40 to 85°C
IP Rating	IP20

Interface

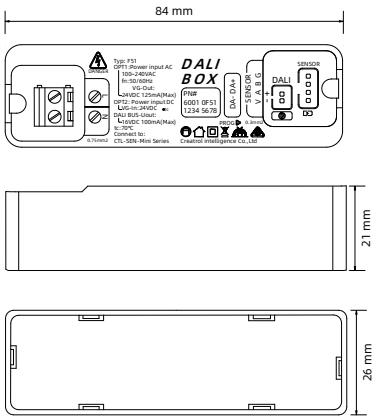


1. L: AC 100 to 240 V Live wire input.
2. N: AC 100 to 240 V Neutral wire input.
3. PROG: Function reserved for future use.
4. DALI -: DALI Bus 16 V negative output.
5. DALI +: DALI Bus 16 V positive output.
6. V: DC 24 V positive terminal (Outputs 24 V when using AC input; functions as input when no AC is present).
7. A: Positive signal line for RS485 differential communication.
8. B: Negative signal line for RS485 differential communication.
9. G: DC Ground terminal (Outputs GND when sensor using AC input; functions as 24 V GND input when no AC is present).

Wiring Diagram



Dimensions



Safety

1. Disconnect main power before wiring.
2. Use safety-certified cables and strictly follow the wiring diagram.
3. Ensure input voltage is within range and do not exceed the rated load.
4. Periodically inspect terminal blocks for secure connections.