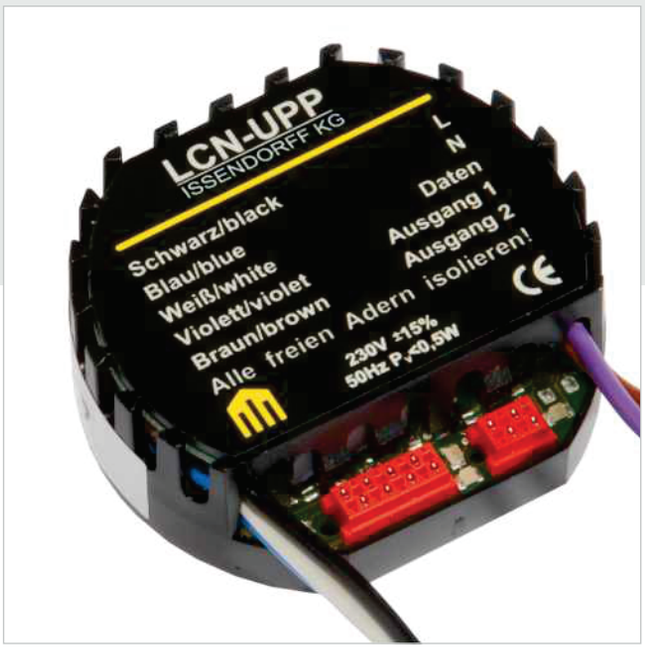
LCN-UPP

Universal switch- and dimming module for flush-mounting

The LCN-UPP flush mounted module is a sensor-actuator for the LCN Bus system. It has two switching/dimming electronic outputs at 230V. It has a further output which is not hard wired but can be used for DALI applications.
Apart from this, additional sensors and actuators can be connected through ist T- and I-ports. Parameters for the internal operating programme can be set using the system software LCN-PRO.
The LCN-UPP is decentrally installed in a wall cavity using flush mounted switch or junction boxes.



Field of application:

- High grade, theatre standard lighting control, sophisticated lighting effects and daylight dependent lighting control.
- Control of solar shading and conservatories.
- Individual room control: cooling, heating and ventilation.
- Access control with IR remote control and transponder.
- Automatic control with numerous timers and associated logical operations/processes.
- Tableau/control panel installations with 4 LED states and hierarchical logical operations for authorising and displaying.
- Alarm systems with multiple zones and complex requirements, blocking locks, early warning alarm systems etc.
- Associated logical operations across installation/facility boundaries including: lighting ‹-› shade ‹-› alarm ‹-› entry, etc = high performance through the cost efficient use of multiple sensors and actuators.
- All functions can used independently and are also available to be used simultaneously.

Hardware:

230V PSU 50/60Hz (110V version available)

2 electronic switch outputs 230V, max. 300VA: Zero-voltage switching or dimming (phase cut-on)

T-Port for connection of up to 8 keys via key converter LCN- T8, LCN-TEx, LCN-TU4R or LCN-R1U (relay), LCN-GT12, LCN-GT6 etc.

I-Port for combined connection of LCN-RR (IR-remote-control receiver), LCN-TS (Temperature sensor), LCN-BMI (Motion detector), LCN-ULT (Transponder reader), LCN-GTxD (Glas Touch-Keypad) etc.

Note:

For dimming, the LCN-FI1 (filter) is necessary!

When operating conventional motors with built-in limit switches, an LCN-R2U is to be used.

Operating Programme:

Four outputs, two of which are electronic outputs for switching, dimming, brightness and blending controls which can all be set individually. Two timing circuits (10ms .. 40min) enabling momentary timers, staircase lighting, etc. All 3 outputs have the capacity for storing up to 100 light scenes. (each storing brightness and blending time).

The LCN-UPP supports two DSI signals, three DALI-groups respectively (through LCN-DDR). Additionally, all of the DALI and DSI-elements can be directly controlled via the LCN-DDR.

Connection for either 8 conventional keys (with adapter cable LCN-T8), 4 EnOcean radio switch (LCN-T4ER) or KNX/EIB standard sensor -keys (LCN-TEx), eg. 4 fold = 8 keys with 3 commands each being sent to 2 addresses (modules or groups). In total 32 keys in 4 tables = 192 commands to 64 target addresses.

The keys support 3 functions: **Hit**, **Hold** and **Release.**

With the adapter LCN-TEx standard EIB key sensors can be connected. Support and parametrisation of the LED's on standard EIB key sensors.

Tableau/control panel functions for 12 lights with 4 states: **On, Off, Flash** and **Flicker**. Four logical operations for hierarchical fault signal processing in compliance with DIN.

Decoding of the IR-remote control receiver. Immediate evaluation or via a main computer. Functions for key levels, ciphered transmission, transmission distinction, transponder combinable, person identification.

Further functions :

- Two freely parametrable continuous action controllers. Results and any variables can be distributed on the bus.
- Analogue value data processing over 5 thresholds with hysteresis; can also be used for control, counting/calculating.
- Transponder data processing of up to 16 transponders (unlimited amount with use of the visualisation software).
- Control with independent and logical operations, single key locking and unlocking, hierarchical switch authorisation.
- Four timers (1s.. 45 days), two timers (relay) periodic clock.
- Override during power failure for up to 20 sec with power failure recognition, etc.
- Four level acknowledgement and notification system.

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Technical Data:

Connection:

Supply voltage:	230V AC ±15%, 50/60Hz (110V AC ±15% type available)
Power consumption:	0.5W power consumption
Supply Connection:	Litz wires 0,75 mm^2 (with insulated ferrules)

Electronic Outputs:

Load output:	Zero-voltage switch or phase-cut on dimmer
Resolution:	200 dimming levels
Max. load per output:	300VA @ 230V (cosφ=1) 150VA @ 110V (cosφ=1) (When installed in solid walls.) When installed in thermal insulated walls, max power is reduced. When installed in the same box as FI1 or NU16 the max power is reduced by 1/3, see installation manual.
Temperature monitor	Yes
Overload capacity:	1kW max.10s
Power dissipation:	0.7% apparant power max 4W full load
Minimum load:	- none -

Ports:

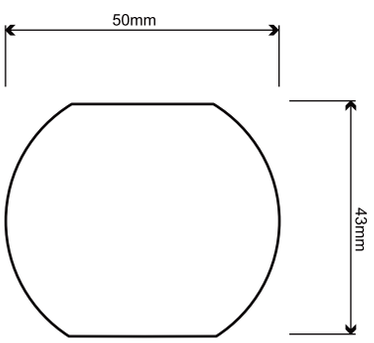
T-Port	Available
I- Port	Available

General Details:

Operating temperature:	-10℃ to +40℃
Humidity:	max. 80% rel., non condensing
Environmental conditions:	Stationary installation according to VDE 632,VDE 637,
Safety classification:	IP 20 when installed in a deep wall box

Dimensions:

Ø x H: 50mm x 20mm

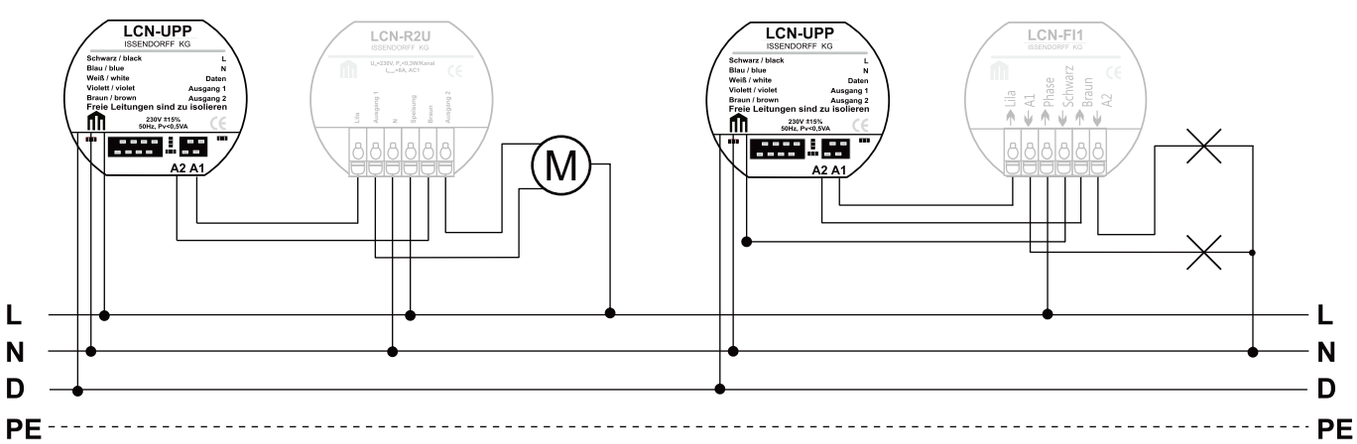


Assembly:

de-centralized installation in deep flush-mounted box

Circuit Diagram:

Example: Motor Controller with relais LCN-R2U



Example: Dimming - Here's a noise filter LCN - FI1 be provided