

# LCN-LD

## Power Switch-and Dim Module

### Functional Specifications:

#### Operating Programme:

Firmware-integrated as per LCN-HU

Three outputs, two of which are hard wired electronic outputs for switching, dimming, brightness and blending control which can all be set individually. Two timing circuits (10ms .. 40min) enabling momentary timers, staircase lighting, etc.

All 3 outputs have the possibility to store up to 100 light scenes. (each storing brightness and blending time)

Three analogue channels 0-10V, alternatively three DSI channels or three DALI groups.

Connection for 8 keys (with adapter cable LCN-T8) which can distinguish the **Hit**, **Hold** and **Release** function: each of the 3 commands can be sent to 2 addresses (modules or groups).

In total 32 keys in 4 tables = 192 commands to 64 target addresses.

LCN Tableau function/Panelboard with 4 states: **On**, **Off**, **Blink** and **Flicker**. Four summing operations with 12 logic inputs for each and hierarchal fault signal processing in compliance with DIN.

Decoding of the IR receiver. Evaluation direct or over main computer. Functions for key levels, ciphered transmission, transmission distinction, transponder (evaluation of serial numbers), personal identification.

Further functions:

- Two freely parametable continuous action controllers. Results and any variables can be distributed on the bus
- Analogue value data processing over 5 thresholds with hysteresis, also can be used for control, counting/calculating
- Transponder data processing for up to 16 transponders (unlimited amount with use of the visualization software)
- Control with independent and logic operation, single key locking and unlocking, hierarchical reporting
- Four timers (1s.. 45 days), 2 relay timers, cycling clock generator
- Override during power failure for up to 20 sec with power failure recognition, etc.
- Four level reporting and acknowledgement
- Function reporting: execution of commands are clearly confirmed
- Automatic creation of status reporting for the visualization
- Constant monitoring for over temp and overloading of peripherals with automatic shutdown
- Status reporting (self monitoring)

#### Hardware:

230V PSU 50/60Hz (120V version available)

2 electronic switching outputs at 230V, max. 2000W zero-voltage switch or phase cut-on dimming.

Three analogue 0-10V outputs for DSI or DALI applications.

T-Port socket connection for up to 8 keys via key converter LCN-TU4x or A/D converter LCN-AD1 etc

I-Port for combined connection of LCN-RR (IR-remote-control receiver), LCN-TS (temperature sensor), LCN-BMI (motion detector), LCN-UT (transponder reader), etc.

P-Port connection as digital in-/output for further peripherals such as relays LCN-R8H, LCN-R4M2H or LCN-R2H, LCN B8x (binary sensor), LCN-BS4 (current sensor), etc.



### Description:

The LCN-LD power dimmer is a sensor/actuator module for the LCN bus system. It has 3 outputs, two of which are hard wired for outputs of up to 2000VA. Furthermore it has T, I and P ports for the connection of additional LCN sensors and actuators.

Used in combination with LCN-R8H it offers a further 8 switchable outputs at 16A/230V.

Individual setting of parameters is achieved using the system software LCN-P or LCN-PRO.

It is usually mounted using a mounting plate inside distribution boxes.

### Field of application:

- Control and dimming of high power devices such as Stage lights
- High grade lighting control at theatre level, splendid lighting effects realized from daylight dependent lighting control.
- Simple RGB control with electronic ballasts.
- Automatic control with many timers and logic operations.
- Logic operations over trade boundaries: passing over: Lighting ↔ Shading ↔ Alarm ↔ Entry, etc = Cost efficient functionality by multiple use of sensors and actuators.

**Note :** All functions can used independently and are also available to be used simultaneously.

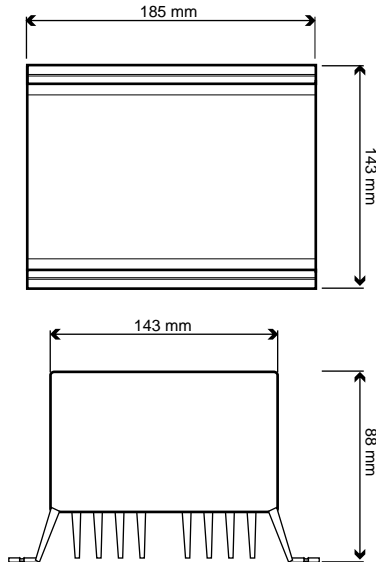
**Note:** Due to its high load capacity the LCN-LD needs an external fuse per output: up to 16A, quick acting. The LCN-LD identifies a blown fuse and reports it.

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### Dimensions:

**Mass** (W x L x H): 185 mm x 143 mm x 88 mm



**Assembly:** screw fixture

### Technical Data:

<b>Connection:</b>	
Supply voltage:	230V~ ±15%, 50/60Hz
Power input:	<0.5W power consumption
<b>Terminals:</b> Screwless Max. 16A	
Cable type:	Single or multi-core max 2.5mm <sup>2</sup> , with insulated ferrules max 1.5mm <sup>2</sup>
<b>Electronic Outputs:</b>	
Load outputs:	Zero voltage switch or phase cut-on dimmer
Resolution:	200 steps in dimming mode
Power output:	2000VA (2kW @ cos =1)
Overload characteristic:	2 x 4kW max 30s
Power loss:	1% apparent power, max 50W at full load
Minimum load:	50W in dimming mode
Fuses at outputs	10A RCD
Fuse fault identification:	Yes
Temperature limiter:	Yes
<b>Control outputs:</b>	
Conductor type:	Max 0.8mm ø
0/10V mode:	
Supply current	Max 0.5mA
Load current	Max 40mA
DSI output	Max 9 electronic ballasts
DALI output	Max 6 electronic ballasts
<b>Ports:</b> T-, I-, P- Port available	
<b>General Details:</b>	
Operating temperature:	-10°C to +40°C
Humidity:	max. 80% rel., non condensing
Environmental conditions:	Stationary installation according to VDE 632, VDE 637,
Safety classification:	IP 20

### Circuit Diagram

