

# LCN-UPP

## Universal Switch and Dimming Module for Patress Box

### Functional Specifications:

#### Operating Programme:

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)

Generation of two DSI signals, three DALI-groups respectively (through LCN-DDR). Additionally all DALI elements can be directly controlled over the LCN bus.

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).

With the adapter LCN-TE<sub>x</sub> standard EIB key sensors can be connected. Support and parametrization of the LED's on standard EIB key sensors.

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), 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 equipment:

230V PSU 50/60Hz (120V 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-TE<sub>x</sub>, LCN-TU4R or LCN-R1U (relay) 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.



#### Description:

The LCN-UPP concealed 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. Furthermore through its T and I ports additional sensors and actuators can be connected.

Parameters for the internal operating program can be set using the system software LCN-P or LCN-PRO.

The module is installed behind switches in the wall using deep patress boxes or at distribution junctions.

#### Field of application:

- High grade lighting control at theatre level, splendid lighting effects realized from daylight dependent lighting control.
- Control for shading and conservatory.
- Individual room control: Cooling, heating and venting.
- Access control with IR remote control and transponder.
- Automatic control with many timers and logic operations.
- Tableau/Panelboard installations with 4 states/LED and hierarchal logic for reporting and displaying.
- Alarm systems also with more zones and complex requirements supervised loop, pre alarms etc.
- 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 be used independently and are also available to be used simultaneously.

#### Note:

For dimming the LCN-F11 (filter) is necessary

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

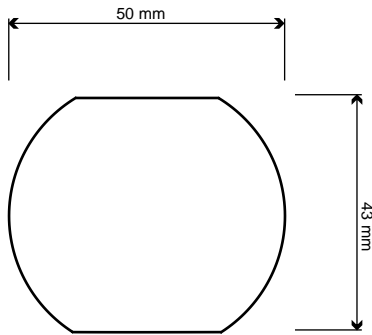
Modification of the LCN-UPP for Merten Tracent (6231 90) is to be stated when ordering.

# LCN-UPP

## Universal switch and dimming Module for Patress Boxes

### Dimensions:

Case Mass (Ø x H): 50 x 20 mm



### Assembly:

de-centralized installation  
in deep wall patress box

### Technical Data:

#### Connection:

Supply voltage: 230V~ ±15%, 50/60Hz  
Input Power: 0.4W power consumption

Supply Connection: Litz wires 0,75 mm<sup>2</sup> (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 (300W @ cos =1) (when installed in solid walls)  
When installed with insulation max power is reduced. When installed in the same patress box as F11 or Nu16 the max power is 1/3 reduced. 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°C to +40°C  
Humidity: max. 80% rel., non condensing  
Environmental conditions: Stationary installation according to VDE 632, VDE 637,  
Safety classification: IP 20 when installed in patress box

### Circuit Diagram

