LCN-HU

Universal Switch- and Dimming Module DIN rail mounted

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)

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

Position control for motors including drive limiting

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 peripheries with automatic shutdown
- Status reporting (self monitoring)

Hardware equipment:

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

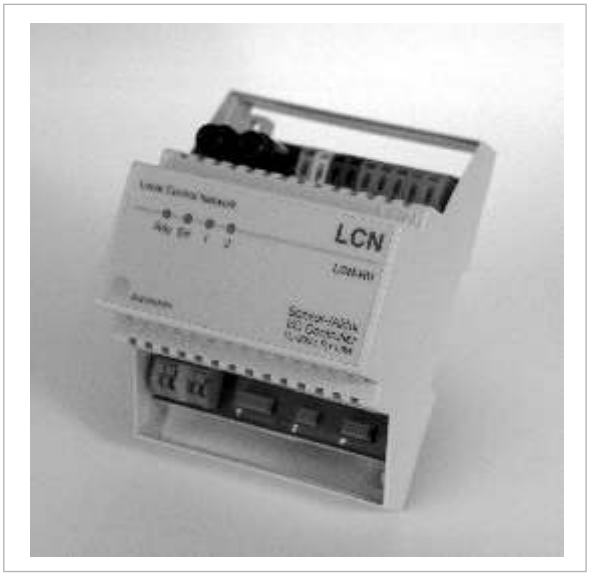
Two 230V 300VA zero voltage electronic switching or dimming outputs (phase cut-on)

3 analogue 0 - 10V outputs, switchable to DALI or DSI

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 peripheries such as relays LCN-R8H, LCN-R4M2H or LCN-R2H, LCN B8x (binary sensor), LCN-BS4 (current sensor), etc.



Description:

The LCN-HU Universal DIN rail mounted module is a sensor/actuator module for the LCN Bus system. It has 3 outputs 0 -10V dc for control of electronic ballasts which can also be connected for DSI or DALI applications.

Furthermore through use of the T and I ports additional sensors and actuaters can be connected.

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

Mounting is designed for inside consumer units on the DIN rail, it can however be mounted elsewhere in the building.

Field of application:

- High grade lighting control at theatre level, splendid lighting effects realized from daylight dependent lighting control.
- Simple RGB control with electronic ballasts.
- Control of shading for conservatories.
- Individual room control: Cooling, heating and venting.
- Access control with IR remote control and transponder.
- Automatic control with many timers and logic operations.
- Hierarchical logic operations from reporting.
- 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 used independently and are also available to be used simultaneously.

Note:

When relays are to be connected directly to the electronic outputs the internal filter can be switched off using the micro switch or a capacitive load module (LCN-C2GH) is needed. Care is to be taken with ref to the relay contact holding current.

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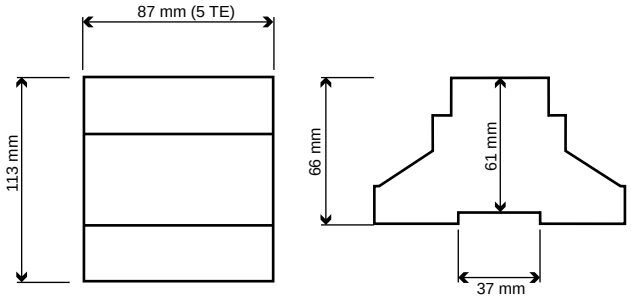
Dimensions:

Mass (W x L x H): 87 mm x 113 mm x 66 mm



Height: 66mm
61mm via DIN rail

Space requirement: 5TE

Assembly: Attached built-in device on 35 mm mounting rail (DIN 50022) or screw fixture

Technical Data:

Connection:

Supply voltage:	230V~ ±15%, 50/60Hz
Input power:	0.4W power consumption
Terminals:	Screwless, max. 16A
Cable type:	Single or multi-core max. 2.5mm², or with insulated ferrules max.1.5mm²

Electronic Outputs:

Load output:	Zero-voltage switch or phase-cut-on dimmer
Resolution:	200 dimming levels
Switching capacity:	500VA (500W @ cosφ=1)
Overload rating**:**	1kW max.10s
Power dissipation:	1% d. Aparent power 10W heat dissipation at full load
Minimum load:	- none -
Fuse per output:	2.5 AF
Fuse fault identification:	Yes
Temperature limiter:	Yes

Control outputs:

Conductor type:	max. 0.8mm Ø
0/10V output:	
Source current	max. 0.5mA
Load current:	max. 40mA
DSI mode:	Max 9 electronic ballasts
DALI mode:	Max 6 electronic ballasts

Ports: T-, I-, P- 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

Circuit Diagram