

# LCN | Accessory

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# LCN-NU16

Power supply unit for flush-mounting 16V, 50mA

The LCN-NU16 is a 16V DC power supply unit for flush mounted boxes.

## Description:

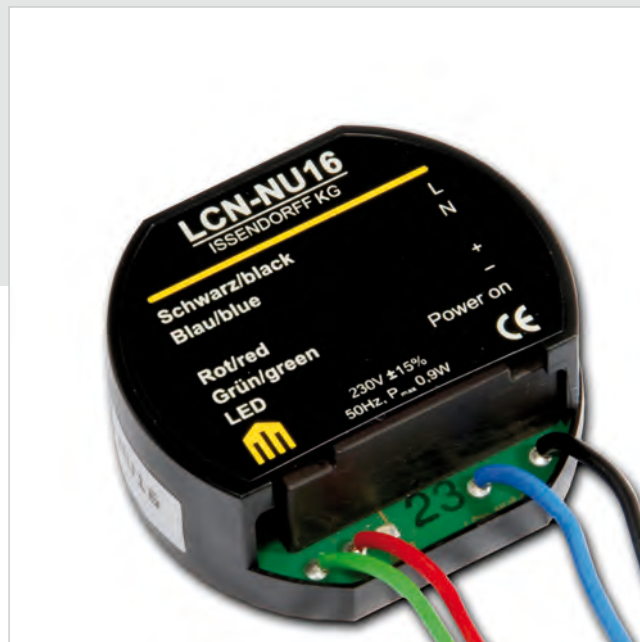
The LCN-NU16 is a power supply for LCN components which require low voltage.

## Hardware equipment:

16V power output

## Note:

The LCN-NU16 is not stabilized, the open circuit voltage is 30V. For more detailed information please refer to the installation instructions.



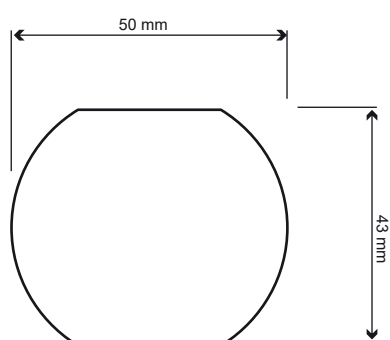
# LCN-NU16

Power supply unit for flush-mounting 16V, 50mA

## Dimensions:

(Ø x H):

50 x 20 mm



## Technical Data:

### Connection::

Power supply

230V AC  $\pm 15\%$ , 50Hz

(110V AC  $\pm 15\%$  type available)

Connection power side:

0,7W

litz wires 0,75 mm<sup>2</sup>(with insulated pin terminals)

### Output:

Voltage:

16V dc

Current:

60mA

No load output:

30V dc

Safety classification:

short-circuit safe transformer

### 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

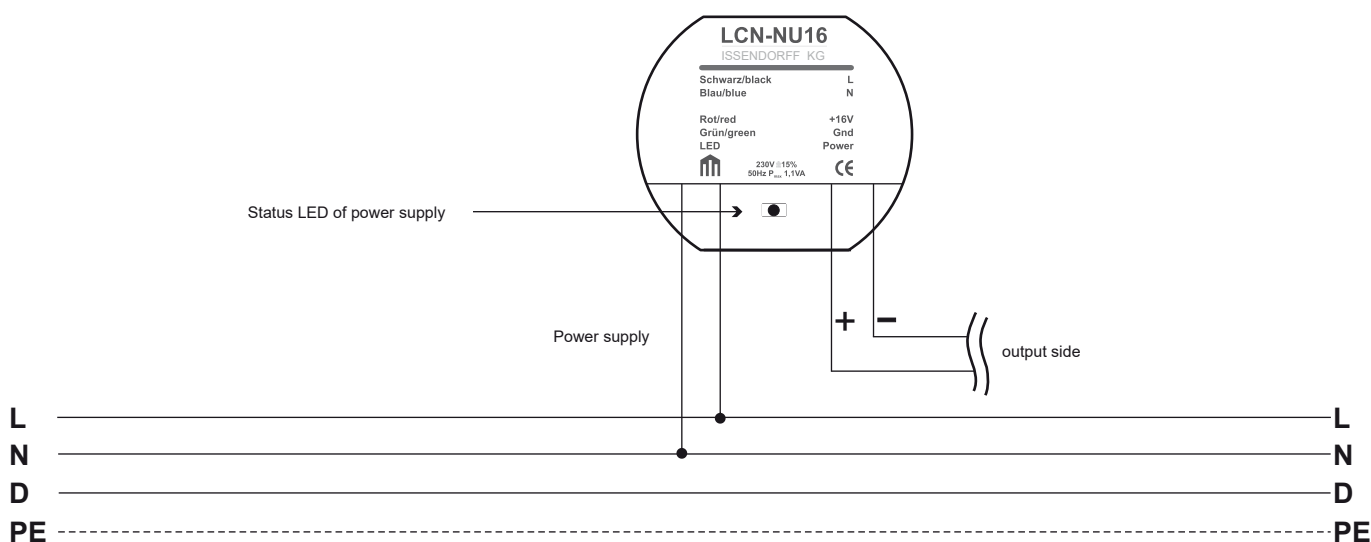
Safety classification:

IP 20,

## Assembly:

de-centralized installation in deep flush-mounted box

## Circuit diagram:



# LCN-NUI

## I-Port Power supply unit for flush-mounting

LCN-NUI is a power supply unit for flush-mounting. It supplies LCN-GT-keypads via the I-port.

### Description:

LCN-NUI is a power supply to supply the LCN-GT glass touch-keypads with power and operated on the T- & I-port. thanks to the looped through I-port, he can be simply looped into the I-connection cable and supply the modules over this cable. As a power supply he has enough power to supply all possible I-port components of intelligent LCN-modules.

When using the power supply, the blue key background light and especially the Corona surround lights are available on the LCN-GT glass touch-keypads.



### Hardware equipment:

3 terminals for the I-Port connection

### Note:

#### I-port guidelines

The I-connection cable can be extended up to 50m (all diverted lengths added together) with an LCN-IV (use Ø 0,5 mm / 0,8mm)

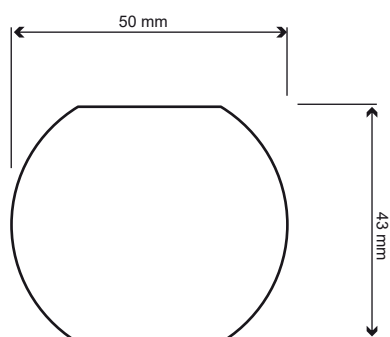
But : The distance from LCN-NUI24 up to a maximum of 2 LCN-GT glass touch-keypad must not be longer than 20m .

For more detailed information please refer to the installation instructions.



**Dimensions:**

(Ø x H): 50 x 20 mm



**Connection:**

85V - 264V AC, 50/60Hz  
2 litz wires 0,75 mm<sup>2</sup>(with  
insulated pin terminals)

**Output:**

5V DC  
max. 2,5W

**Ports:**

available, 3-way

**General details:**

-10°C to +40°C  
max. 80% rel., Non condensing

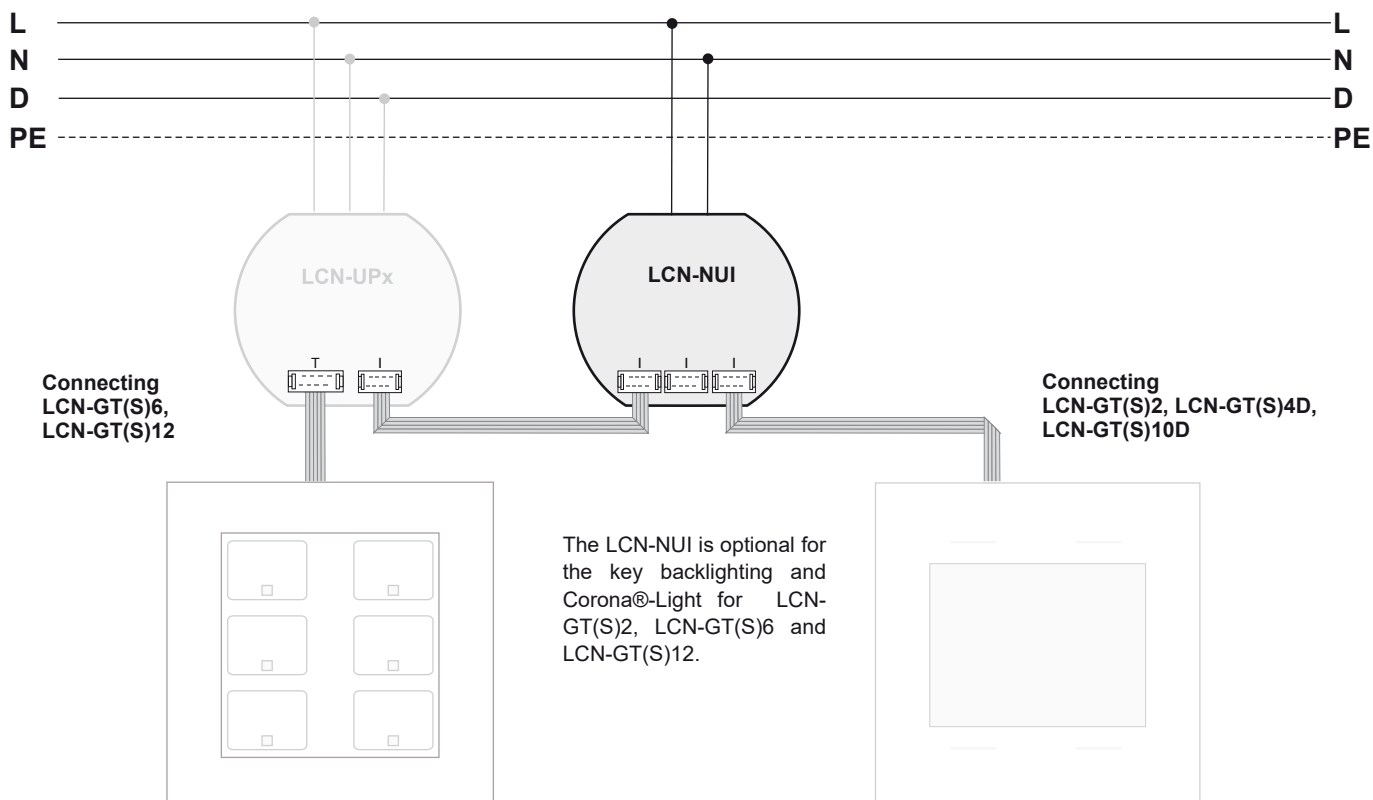
stationary installation according  
to VDE 632, VDE 637

IP 20

### Assembly:

de-centralized installation in  
deep flush-mounted box

**Circuit diagram:**



# LCN-NUI24

## 24V I-Port Power supply unit for flush-mounting

LCN-NUI24 is a power supply unit for flush-mounting. It supplies LCN-GT-keypads via the I-port.

### Description:

LCN-NUI24 is a power supply to supply the LCN-GT glass touch-keypads with power and operated on the T- & I-port. thanks to the looped through I-port, he can be simply looped into the I-connection cable and supply the modules over this cable. As a power supply he has enough power to supply all possible I-port components of intelligent LCN-modules.

When using the power supply, the blue key background light and especially the Corona surround lights are available on the LCN-GT glass touch-keypads.



### Hardware equipment:

1 x I-Port connection cable

2 x I-Port connection for further peripherals

### Note:

#### I-port guidelines

The I-connection cable can be extended up to 50m (all diverted lengths added together) with an LCN-IV (use Ø 0,5 mm / 0,8mm)

But : The distance from LCN-NUI24 up to a maximum of 2 LCN-GT glass touch-keypad must not be longer than 20m .

For more detailed information please refer to the installation instructions.

## Perfection.

# LCN-NIH

## Power supply GTxx, DIN rail mounting

LCN-NIH is a power supply unit for DIN rail mounting. It supplies LCN-GT-keypads via the I-port.

### Description:

LCN-NIH is a power supply to supply the LCN-GT glass touch-keypads with power and operated on the T- & I-port. thanks to the looped through I-port, he can be simply looped into the I-connection cable and supply the modules over this cable. As a power supply he has enough power to supply all possible I-port components of intelligent LCN-modules.

When using the power supply, the blue key background light and especially the Corona surround lights are available on the LCN-GT glass touch-keypads.



### Hardware equipment:

- 1 x I-Port connection cable
- 1 x I-Port connection for further peripherals
- 2 x Screw terminals for cable up to 2 x 0,6mm Ø or 1 x 0,8mmØ

### Note:

#### I-port guidelines

The I-connection cable can be extended up to 50m (all diverted lengths added together) with an LCN-IV (use Ø 0,5 mm / 0,8mm)

But : The distance from LCN-NIH up to a maximum of 2 LCN-GT glass touch-keypad must not be longer than 20m .

For more detailed information please refer to the installation instructions.

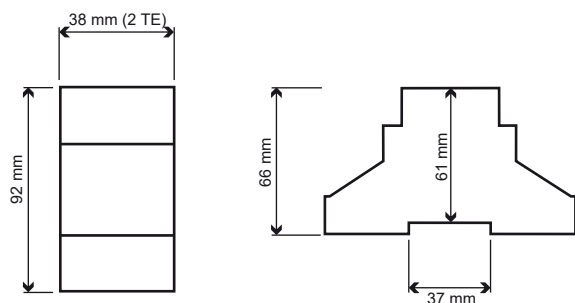


# LCN-NIH

Power supply GTxx, DIN rail mounting

## Dimensions:

(L x W x H): 38 mm x 92 mm x 66 mm

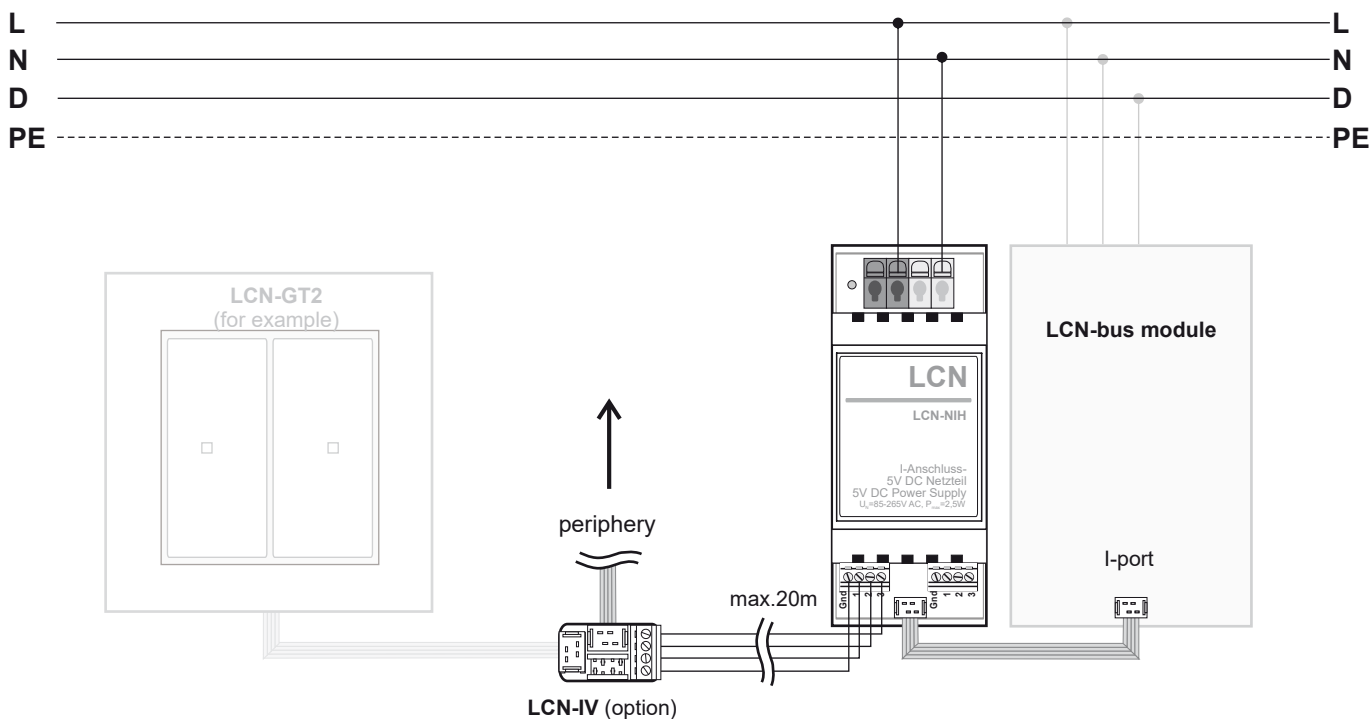


**Height:** 66mm  
61mm via DIN rail

**Space requirement:** 2TE

**Assembly:** REG on 35 mm mounting rail  
(DIN 50022)

## Circuit diagram:



## Technical Data:

### Connection:

Power supply  
Connection power side:

110V - 230V<sub>AC</sub>, 50/60Hz  
Screwless, max. 16A  
Single or multi core max. 2,5mm<sup>2</sup>  
or with insulated ferrules 1,5mm<sup>2</sup>

### Output:

Output voltage:  
Power output:  
Connection output voltage:

5V DC  
max. 2,5W  
for screwing, massive or multi-phase (max. 0,8mmØ), with and without insulated pin terminals

### General details:

Operating temperature:  
Humidity:

-10°C to +40°C  
max. 80% rel., Non condensing

Environmental conditions:

stationary installation according to VDE 632, VDE 637

Safety classification:

IP 20

# LCN-NDH

## DALI power supply for DIN rail mounting

The LCN-NDH is a DALI-power supply for an optional operation on the LCN-HU module, firmware 170205 (Feb. 2013) or later.

### Description:

When operating the LCN-NDH, it is additionally possible to operate the control gears in the normal mode, instead of in the energy efficient DALI-LCN mode (low level). Through this, the lights will be switched on fully if a cable breakage occurs. In the LCN mode, the lights will keep their last brightness level if an error occurs.

Fields of application:

Using the LCN-NDH maximal 32 DALI-EVG can be controlled in the DALI standard operation mode (high level).

### Hardware equipment:

Output for power supply

### Note:

The DALI operation is only then possible, when LCN-GT4D,s/-GT10D's are not being operated at the same time. Excluded is also operating lights with LCN iLED (= "LEDnet") connections at the same time. To address the ECG's, please use a programming device from the respective ECG manufacturer.

The control gears from the company TRIDONIC after year of manufacture 2012, can be used without limitation!

For more detailed information please refer to the installation instructions.



### Function description:

LCN sends group commands to the DALI-interface. The DALI group addresses 1, 2, 3 and 4 are permanently combined with the electronic outputs: All ECGs, that are a member of group 1, follow the 1st output, the ones in group 2 follow the 2nd, and so on.

#### Control of DALI-EVGs

- Output 1 controls DALI-group 1
- Output 2 controls DALI-group 2
- Output 3 controls DALI-group 3
- Output 4 controls DALI-group 4

In the DALI operation, only the 1st EVG output on the LCN-HU will be switched, the other EVG terminals are without function. The LCN-NDH is switched parallel to this.

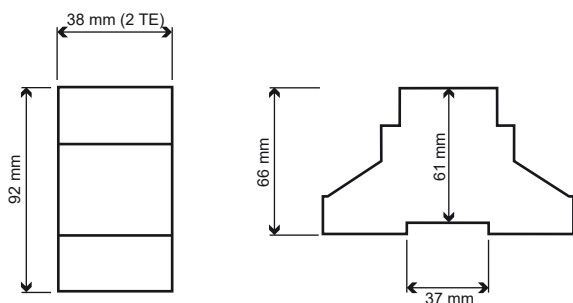
- LED green on+red off = standby (no telegram)
- LED green+red flashing = active (DALI telegram traffic)
- LED both off = error

# LCN-NDH

## DALI power supply for DIN rail mounting

### Dimensions:

(L x W x H): 38 mm x 92 mm x 66 mm

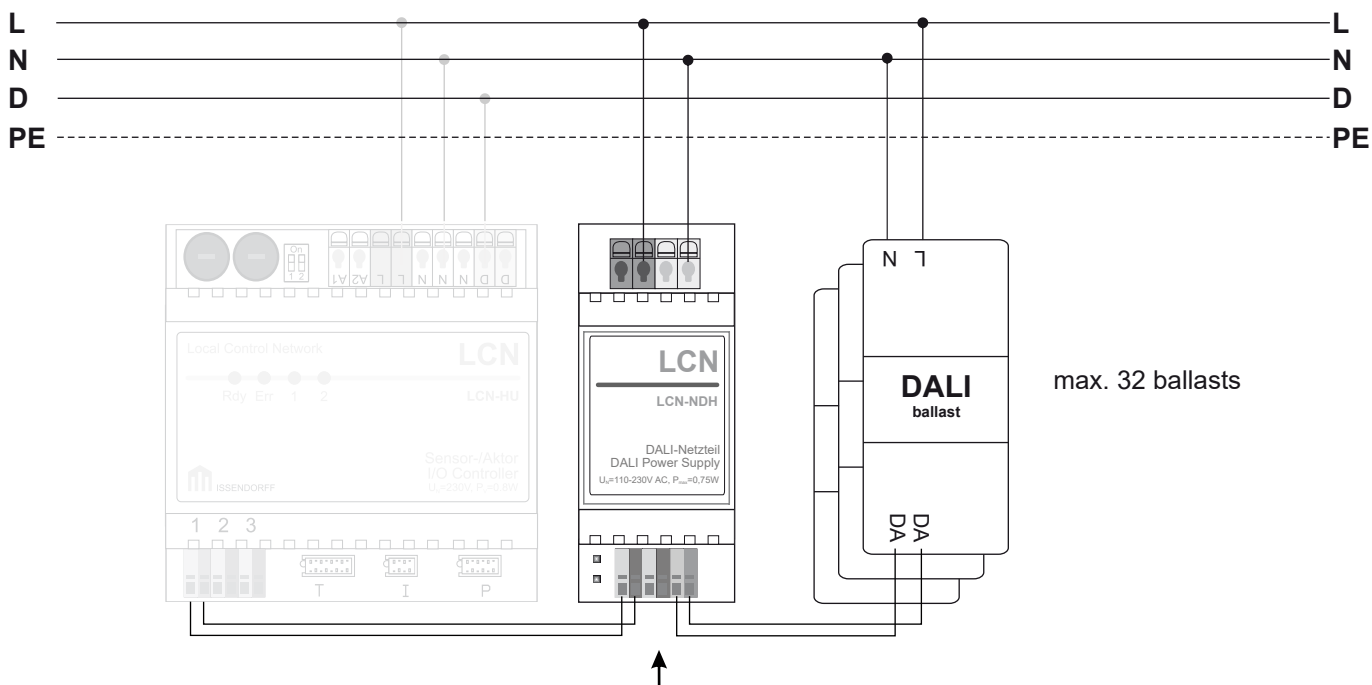


**Height:** 66mm  
61mm via DIN rail

**Space requirement:** 2TE

**Assembly:** REG on 35 mm mounting rail  
(DIN 50022)

### Circuit diagram:



The three terminal pairs of LCN-NDH are connected parallel ,  
they can be assigned as desired.

### Technical Data:

|                            |                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------|
| <b>Connection:</b>         |                                                                                               |
| Supply voltage:            | 230V AC $\pm 15\%$ , 50/60Hz<br>(110V AC $\pm 15\%$ type available)                           |
| Input power:               | 1,5W                                                                                          |
| Terminals:                 | Screwless, max. 16A                                                                           |
| Cable type:                | Single or multi core max. 2,5mm <sup>2</sup><br>or with insulated ferrules 1,5mm <sup>2</sup> |
| <b>Output:</b>             |                                                                                               |
| Output voltage:            | according to DALI - specification,<br>poled interface                                         |
| Terminals/Conductor Type : | solid or strand 0.5 - 1,5mm <sup>2</sup>                                                      |
| Number of DALI devices :   | Max. 32 ECGs total                                                                            |
| <b>General details:</b>    |                                                                                               |
| Operating temperature:     | -10°C to +40°C                                                                                |
| Humidity:                  | max. 80% rel., no condensation                                                                |
| Environmental conditions:  | stationary installation according<br>to VDE 632,VDE 637,                                      |
| Safety classification:     | IP 20                                                                                         |

# LCN-NH12

## 12V Motor power supply unit

The LCN-NH12 is a low voltage PSU capable of reversing the polarity of its output. It converts 230V into low voltage for shutter and blind motors.

### Field of application:

The LCN-NH12 is directly connected between the two 230V outputs of an LCN module and a 12V motor.

The LCN-NH12 can also be used outside of the LCN system for controlling other devices requiring low voltage rather than 230V.

### Hardware equipment:

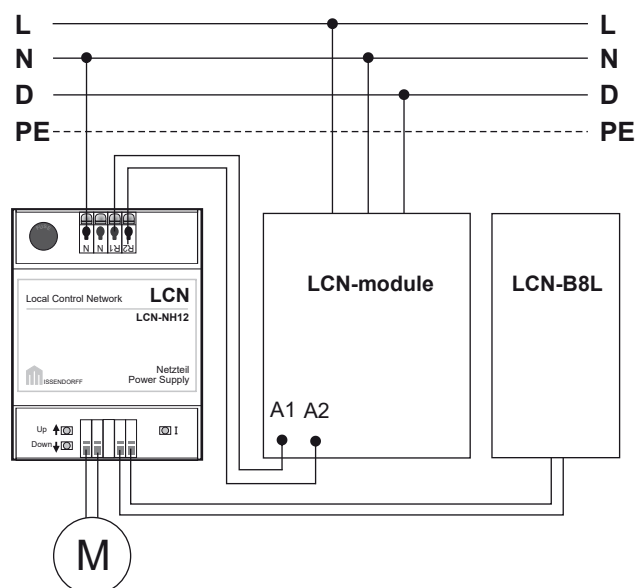
Output for power supply with 12V (reversible polarity)

Status display

### Note:

The power supply is unregulated which means that the open circuit voltage is higher than the nominal voltage! For more detailed information please refer to the installation instructions.

### Circuit diagram:



### Technical Data:

#### Connection:

Supply voltage: 230V AC  $\pm 15\%$ , 50Hz  
(110V AC  $\pm 15\%$  type available)  
Input power: max. 12W  
Micro fuse: 100mA  
Terminals: screwless  
Cable type: max. 16A single or multi-core  
max. 2,5mm<sup>2</sup> or with insulated ferrules max. 1,5mm<sup>2</sup>

#### Output:

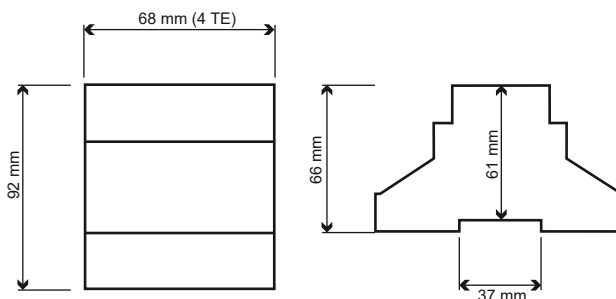
Voltage: + / - 12V=  
Power capacity: 1A  
Neutral voltage: 16V=

#### General details:

Operating temperature: -10°C to +40°C  
Humidity/Environmental conditions: max. 80% rel., non condensing  
stationary installation according to VDE 632, VDE 637, IP 20

### Dimensions:

(L x W x H): 68 mm x 92 mm x 66 mm



### Assembly:

REG on 35 mm mounting rail  
(DIN 50022)

# LCN-NH24

## 24V Motor power supply unit

The LCN-NH24 is a low voltage PSU capable of reversing the polarity of its output. It converts 230V into low voltage for shutter and blind motors.

### Field of application:

The LCN-NH24 is directly connected between the two 230V outputs of an LCN module and a 24V motor.

The LCN-NH24 can also be used outside of the LCN system for controlling other devices requiring low voltage rather than 230V.

Can also be used as a simple 24V power supply unit for DC voltage.



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### Hardware equipment:

Output for power supply with 24V (reversible polarity)

Status display

### Note:

The power supply is unregulated which means that the open circuit voltage is higher than the nominal voltage! For more detailed information please refer to the installation instructions.

### Technical Data:

#### Connection:

Supply voltage: 230V AC  $\pm 15\%$ , 50Hz  
(110V AC  $\pm 15\%$  type available)  
Input power: max. 12W  
Micro fuse: 100mA  
Terminals: screwless  
Cable type: max. 16A single or multi-core  
max. 2,5mm<sup>2</sup> or with insulated ferrules max. 1,5mm<sup>2</sup>

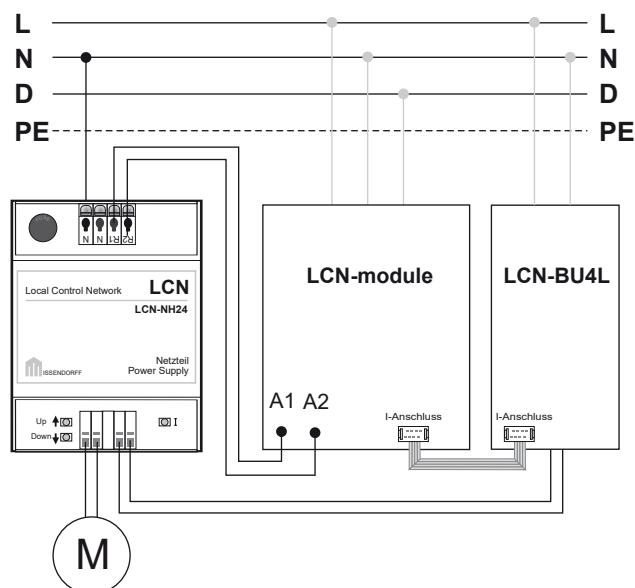
#### Output:

Voltage: + / - 24V=  
Power capacity: 0,5A  
Neutral voltage: 30V=

#### General Details:

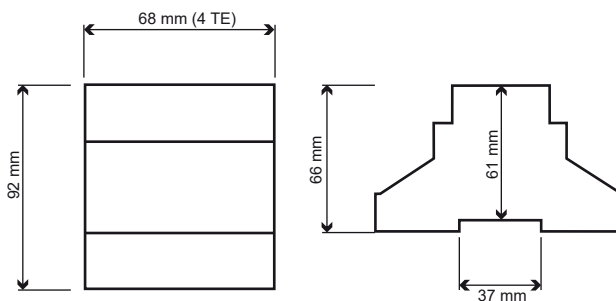
Operating temperature: -10°C to +40°C  
Humidity/Environmental conditions: max. 80% rel., non condensing  
stationary installation according to VDE 632, VDE 637, IP 20

### Circuit diagram:



### Dimensions:

(L x W x H): 68 mm x 92 mm x 66 mm



### Assembly:

REG on 35 mm mounting rail  
(DIN 50022)

# LCN-C2GH

## Base load module for DIN rail mounting

The LCN-C2GH is a base load module for DIN rail assembly in terminal boxes. It has two inputs for electronic LCN outputs, LCN key inputs or binary contacts.

### Field of applications:

The LCN-C2GH is used for increasing the base load at electronic LCN outputs, e.g. for driving relays and contactor coils respectively. Additionally, the LCN-C2GH is used in key circuits with signal lamps or binary signals for suppressing the occurrence of leakage currents.

### Note:

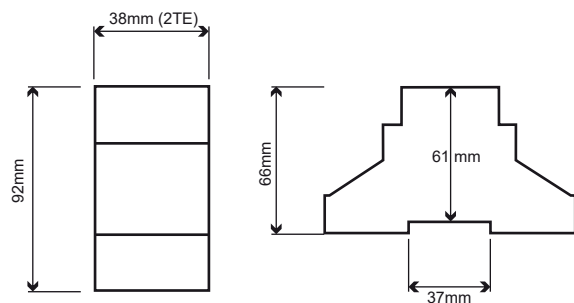
If relay- or contactor coils are controlled by electronic LCN outputs, corresponding LCN-C2GHs should be included. For more detailed information please refer to the installation instructions.



### Dimensions:

(L x W x H):

38 mm x 92 mm x 66 mm



### Assembly:

REG on 35 mm mounting rail (DIN 50022)

### Technical Data:

#### Connection:

Power supply: 230V AC  $\pm 15\%$ , 50Hz  
(110V AC  $\pm 15\%$  type available)

#### Power capacity:

<1W

#### Wiring option:

Conductor type: screwless,  
max. 16A, massive or multi-phase  
(max. 2,5mm<sup>2</sup>) or with  
phase-end sleeve (max. 1,5mm<sup>2</sup>)

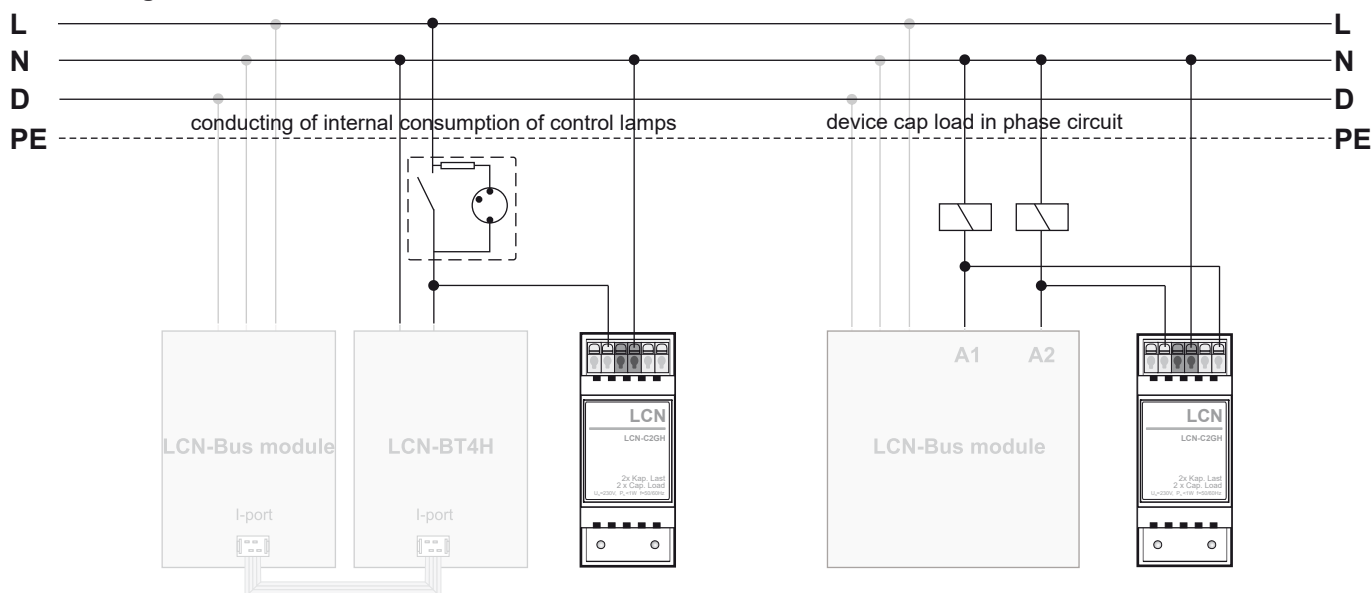
#### General details:

Operating temperature: -10°C to +40°C  
Humidity: max. 80% rel., no condensation  
Environmental conditions: stationary installation according to VDE 632, VDE 637

#### Safety classification:

IP 20

### Circuit diagram:



# LCN-C2GR

Base load module for flush-mounting

The LCN-C2GR is a base load module for decentralised installation. It has two connection options and is used in parallel with key inputs.

## Field of application:

The LCN-C2GR is used in key switches with signaling lamps in order to suppress leakage current.

## Note:

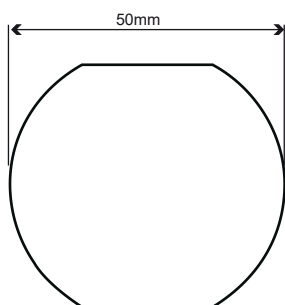
If relay- or contactor coils are controlled by electronic LCN outputs, corresponding LCN-C2GHs should be included. For more detailed information please refer to the installation instructions.



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## Dimensions:

(Ø x H): 50 mm x 10 mm



## Assembly:

de-centralized installation in deep flush-mounted box

## Technical Data:

### Connection:

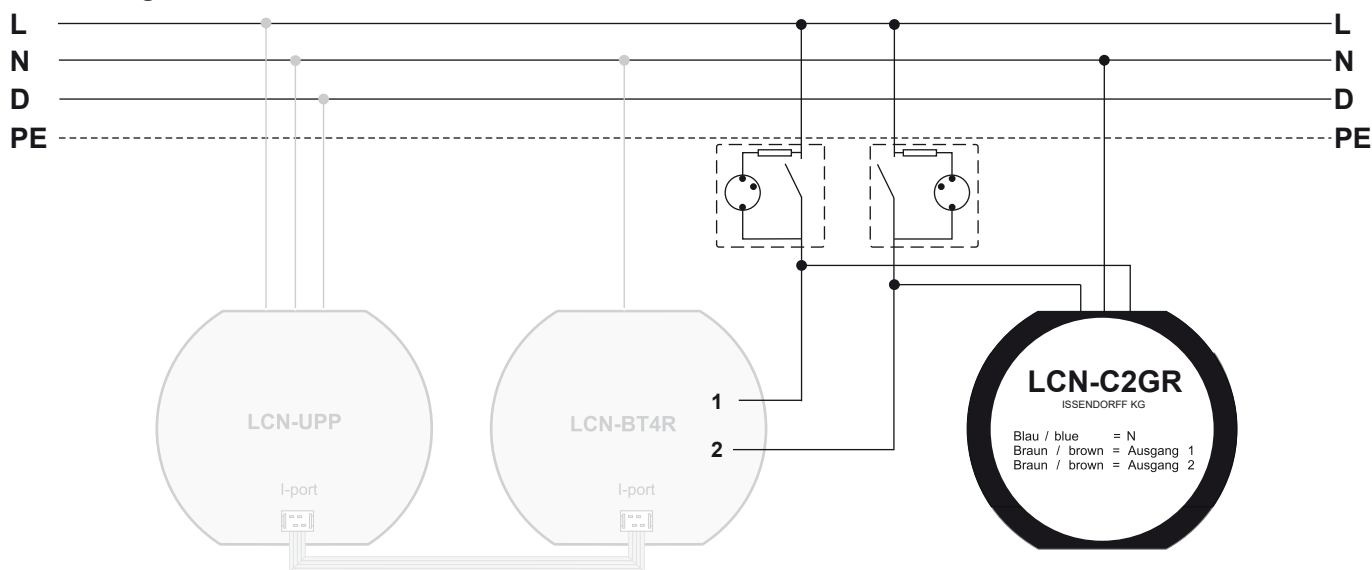
Supply voltage: 230V AC  $\pm 15\%$ , 50Hz  
(110V AC  $\pm 15\%$  type available)  
Power input: <0,3W  
Connection power side: Litz wire 0,75 mm<sup>2</sup> (with insulated ferrules)

### General details:

Operating temperature: -10°C to +40°C  
Humidity: max. 80% rel., non condensing  
Environmental conditions: Stationary installation according to VDE632, VDE637

Safety classification: IP 20,

## Circuit diagram:



# LCN-K3

## Terminal block for DIN rail mounting

The LCN-K3 is a three-pole terminal block with plug-in terminals for mounting in distribution boxes.

### Description:

The LCN-K3 provides a plug-in connection for the LCN-PKU and is mounted in distribution boxes, preferably in installations where the LCN-PKU is not to be permanently mounted.

### Hardware equipment:

Terminal block for the Din rail

Plug for connection a LCN-PKU PC coupler



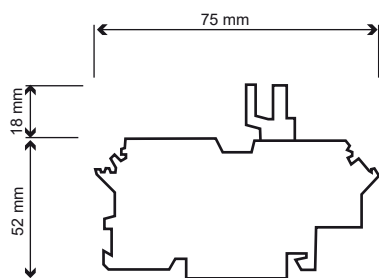


# LCN-K3

## Terminal block for DIN rail mounting

### Dimensions:

(L x W x H): 17 mm x 75 mm x 52 mm



Space requirement: 1TE

Assembly: REG on 35 mm mounting rail (DIN 50022)

### Technical Data:

#### Connection:

Power supply: 230V AC  $\pm 15\%$ , 50Hz  
(110V AC  $\pm 15\%$  type available)  
Wiring option: screwless,  
Conductor type: max. 16A, massive or multi-phase  
(max. 4mm<sup>2</sup>) or with insulated pin terminals (max. 2,5mm<sup>2</sup>)

#### Ports:

T-Port: not available  
I-Port: not available  
P-Port: not available

#### General details:

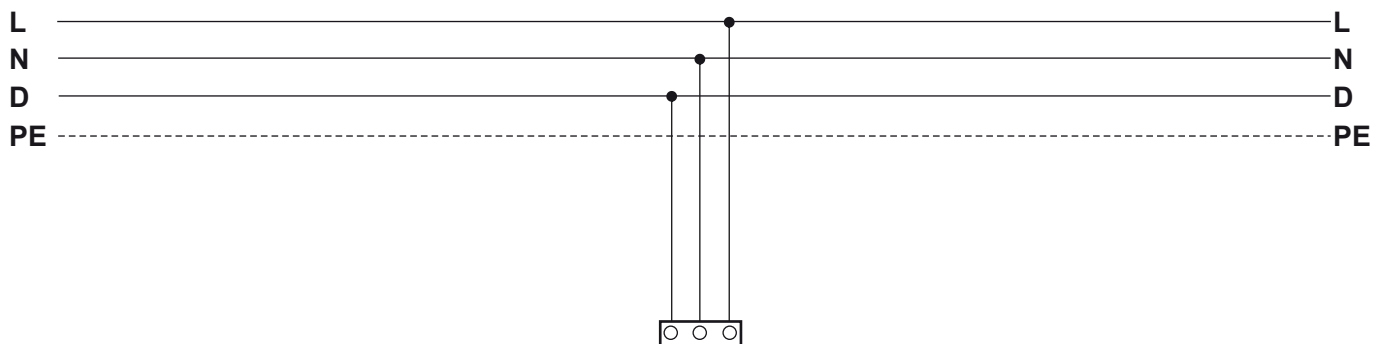
Operating temperature: -10°C to +40°C  
Humidity: max. 80% rel., non condensing

Environmental conditions: stationary installation according to VDE 632, VDE 637

Safety classification: IP 20

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### Circuit diagram:



# LCN-AVN

## Mains voltage-actuator (230 V) for heating and air-conditioning

The LCN-AVN is a thermoelectric actuator for radiator valves. It can be connected to valves of various manufacturers by means of an adapter. The actuator is intended for operation on LCN bus modules dating from 04/2008. All LCN actuators are normally closed (NC).

### Description:

The actuating mechanism works with a PTC heated expansion element and a compression spring. When the operating voltage is applied, the expansion element heats up causing the integrated tappet to move. The force generated by this movement is transferred to the valve tappet and opens or closes the valve. The LCN-AVN has a marking on the tappet which indicates the opening width. The LCN-AVN is supplied in first-open-position, so that it is normally open (NO). This enables the building being heated during the construction phase and when the electrical wiring for single room controls have not yet been completed. By switching on the operating voltage (for longer than 6 min.) the first open function is automatically unlocked and the actuator is fully functional (normally closed NC). The actuator clips onto the valve adapter. By pressing the perspex access cover, it can be taken off again. The perspex access cover can be easily removed, so that the actuator is safeguarded against being unlocked.

### Hardware equipment:

Pre-installed actuator with connection cable  
(2x 0,75mm<sup>2</sup> with ferrules, Length: 1m)  
Universal adapter VA 80

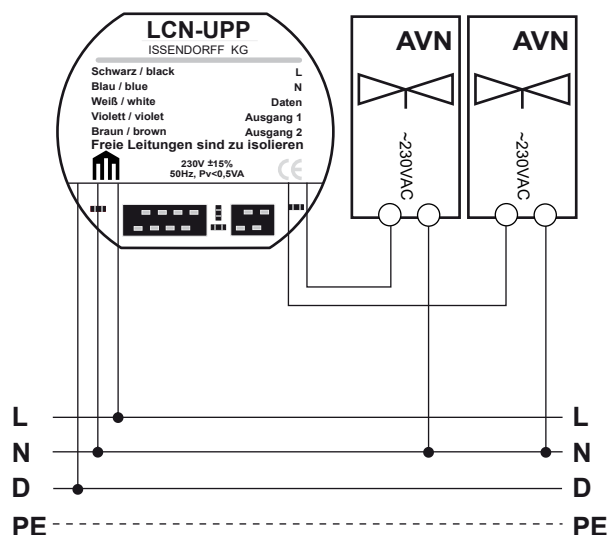
Optional:  
Valve adapter VA 78 (Danfoss RA, 23mm inner diameter)  
Valve adapter VA 16H (Herz, 28mm x 1,5)



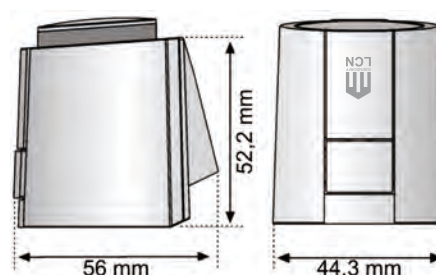
### Technical data:

|                        |                                                                                      |
|------------------------|--------------------------------------------------------------------------------------|
| Mode of action:        | Thermoelectric<br>(factory side open, after initial operation with out power closed) |
| Operating power:       | 230V AC $\pm 15\%$ , 50-60Hz                                                         |
| Actuating force:       | 100N $\pm 5\%$                                                                       |
| Safety class/-grad:    | II / IP54                                                                            |
| Operating temperature: | 0°C bis +60°C                                                                        |
| Consumption:           | 1,8W                                                                                 |
| Connecting cable:      | Wire 2 x 0,75mm <sup>2</sup> with ferrules, Length: 1m                               |

### Circuit diagram:



### Dimensions:



# LCN-AVC

## Low voltage actuator (0-10V) for heating and air-conditioning

The LCN-AVC is a thermoelectric actuator with electronic path measurement for radiator valves.

All LCN actuators are normally closed (NC).

### Description:

The actuating mechanism works with a PTC heated expansion element and a compression spring. When the operating voltage is applied, the expansion element heats up causing the integrated tappet to move. The force generated by this movement is transferred to the valve tappet and opens or closes the valve.

The actuator LCN-AVN with 0-10V control is deployed when several radiators in a large room are to be controlled by the same controller. Every actuator measures its valve ensuring that heat output is evenly distributed amongst all of the radiators during parallel operation—regardless of the valve characteristics. Up to 5 actuators can be operated in parallel per 0-10V output on a LCN-HU.

### Hardware equipment:

Pre-installed actuator with connection cable (3x 0,22mm<sup>2</sup> with ferules, length: 1m)  
Universal adapter VA 80

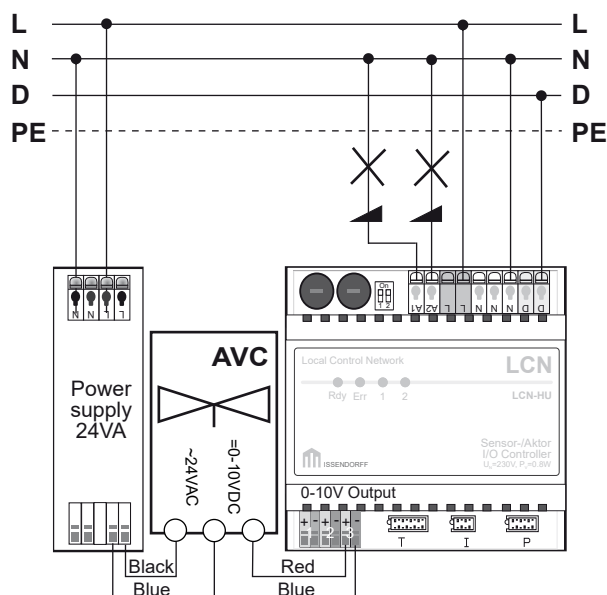
Optional:  
Valve adapter VA 78 (Danfoss RA, 23mm inside diameter)  
Valve adapter VA 16H (Herz, 28mm x 1,5)



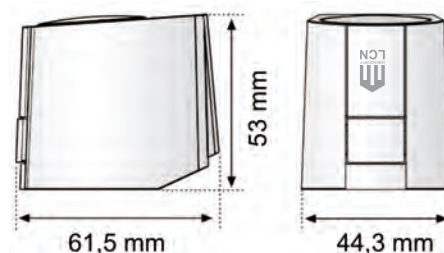
### Technical data:

|                        |                                        |
|------------------------|----------------------------------------|
| Mode of action:        | Thermoelectric actuator (proportional) |
| Supply voltage:        | 24V AC 50-60Hz                         |
| Control voltage:       | 1-10V DC                               |
| Actuating force:       | 100N +/-5%                             |
| Safety class/-grad:    | II / IP54                              |
| Operating temperature: | 0°C to +60°C                           |
| Consumption:           | 1,8W                                   |
| Connecting cable:      | 3 x 0,22mm <sup>2</sup> , Length: 1m   |

### Circuit diagram:



### Dimensions:



# LCN-RSU

## Rest voltage suppressor for LED lamps in dimming operation

The LCN-RSU is connected parallel to the load (light) and avoids e.g. flickering/afterglowing of the LED's or ESL's on the elektronical output.

### Description:

Because of the VDE required measures, a small capacitive standby current flows out of each power output, even when the TRIACS's are switched off. When connecting LED's, this might mean that dimming will not proceed harmonically or that the lamp will flash up in a switched off condition. With the LCN-SH/-HU modules, the switch for the output filter can be supportively switched to "OFF". The LCN-RSU suppresses these unwished effects.

The LCN-RSU is suitable for the following effects/loads:

- flickering LED's or ESL's
- „sticky“ relays
- afterglowing LED's

An LCN-RSU is required on each output.

### Note:

The scope of supply includes 4 pieces.  
For more detailed information please refer to the installation instructions.



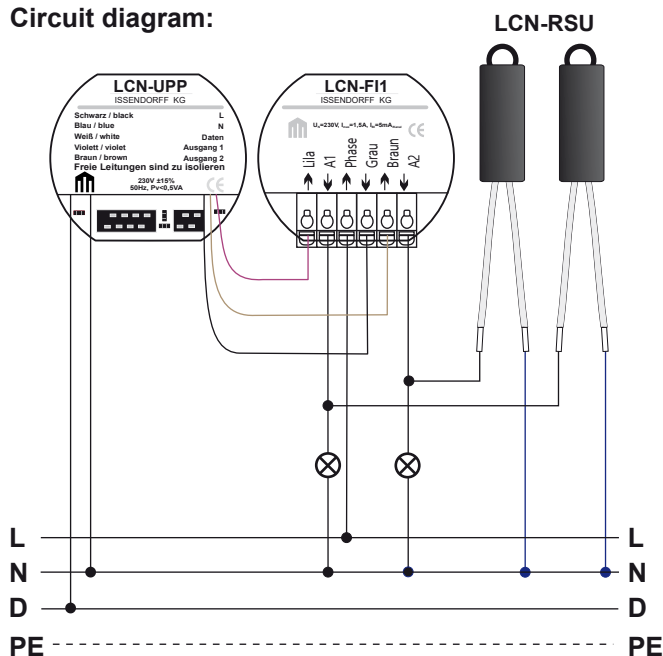
### Technical data:

|                    |                                  |
|--------------------|----------------------------------|
| <b>Connection:</b> |                                  |
| Power supply:      | 110-230V AC $\pm 15\%$ , 50/60Hz |
| Power capacity:    | <0,2W                            |
| Conductor type:    | massive 0,75mm $\varnothing$     |

### General details:

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| Operating temperature:    | -10°C to +40°C                                        |
| Humidity:                 | max. 80% rel., no condensation                        |
| Environmental conditions: | stationary installation according to VDE 632, VDE 637 |
| Safety classification:    | IP 20                                                 |

### Circuit diagram:



### Dimensions:

|                       |             |
|-----------------------|-------------|
| ( $\varnothing$ x H): | 12mm x 33mm |
|-----------------------|-------------|

# LCN-A6835

## Adapter frame for reducing the flush mounted box from 68mm to 35mm

With the adapter frame, 68mm flush mounted boxes and cavity wall boxes can be reduced to the size of a 35mm lamp outlet box. Fields of application:

With the adapter frame, 68mm flush mounted boxes and cavity wall boxes can be reduced to the size of a 35mm lamp outlet box. It is supplied with screw holes for installing LCN glass sensors LCN-GBL and LCN-GRT, and it is also suitable for installing the key-sensor LCN-GT3L.

### Description:

The LCN-A6835 is suitable for cavity walls and flush mounted boxes. The adapter frame can be bedded in plaster or covered over with wallpaper. Please make sure when covering with plaster, to countersink the flush mounted box, and to turn the adapter frame around.

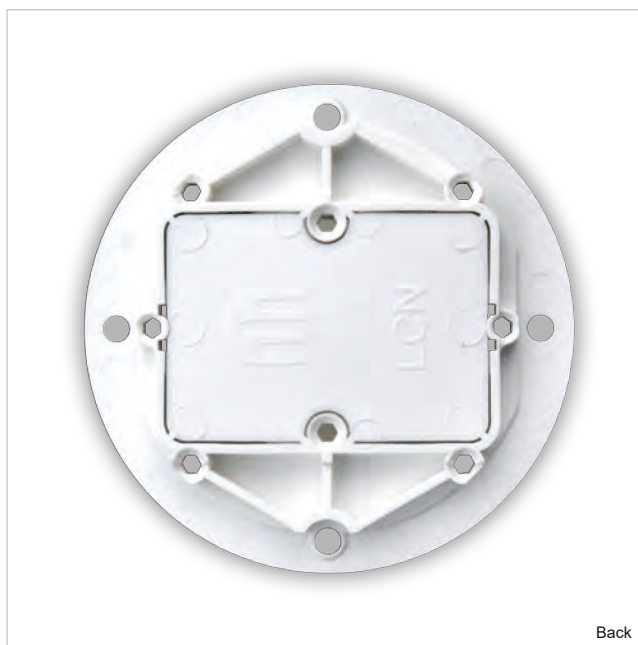
Please remove the base at the back, to enable cables to be fed through. The size of the removed base has been chosen, so that LCN modules can be inserted without any problem.

### Note:

The scope of supply includes 5 pieces. For more detailed information please refer to the installation instructions.



Front



Back

# LCN-SKO

## Training case

The LCN-MKO is the training case for the LCN bus system. Thanks to this comprehensive set of equipment including two intelligent bus modules, key interface, remote control and IR receiver as well as the coupling module and the LCN-PRO software, an easy introduction to the world of LCN is guaranteed.

### Description:

The LCN-SKO enables one to construct a small system and familiarise oneself with the technology. The LCN bus system is especially suited to any field of building automation and is fully adaptable according to the requirements of the corresponding building. Thus the system can be comprehensively applied in private house building, functional constructions, industry or trade buildings, high-rise buildings and many other specialised areas of application.



### Hardware equipment:

#### Module:

LCN-UPU  
LCN-SH

#### Coupler:

LCN-PKU

#### Remote control:

LCN-RT  
LCN-RR

#### Glas Touch-Keypad:

LCN-GT8W

#### Attachments:

USB adapter, cables, connectors and documentation

### Note:

This partner offer only applies to specified electricians.  
One training case is offered to each company.



