

# **LCN**

## **Product List**

## Bus Modules

**Note: All LCN modules are available for 120V operation, too. They operate at 50Hz or 60Hz, please specify when ordering.**

### LCN-SH+



### Standard Switch and Dim Unit

Hardware characteristics:

**Combined sensor and actor**

**Built in power supply**

**Two power outputs, 230V / 300VA, each dimm and switchable, incl. dim-filter,**

**T-, I- and P- Ports for Infrared receiver, tap-action switches, transponder reader, A/D converters, digital inputs / outputs, light, pressure, temp., motion detectors etc.**

Firmware characteristics:

**Memory for up to 192 command functions**

**Switching, dimming, slope, brightness, high pressure discharge tube control,**

**100 scene memory loc. per output**

**shutter control and positioning,**

**various keyboard modes**

**Noise and hum suppression**

**process of threshold values**

**remote control vealuation incl. central processing**

**digital in- and output management**

**extensive three-level messaging concept: every action and every status is always told to the bus**

**Report evaluation and logic control acc.to DIN**

**static and dynamic grouping**

Mains supply:	230V ± 15%, 50Hz
Power consumption	< 1W
Surge protection	4kV
Safety classification	IP20
Dimensions (l. w. h.)	4.5" x 2.7" x 2.6"

## LCN-UPP



## Switch and Dim Unit (box Mount)

Hardware characteristics:

- **Combined sensor and actor**
- **Built in power supply 230V 50/60Hz, (120V available)**
- **Two power outputs, 230V / 250VA each dimm- and switchable**
- **T-Port for push-button key adapters, A/D converter, radar sensor, etc.**
- **sensors, etc.**

Firmware characteristics:

- **Switching, dimming, slope, brightness, high pressure discharge tube control, shutter control**
- **100 scene storage cells per output**
- **extended two button modes**
- **Noise and hum suppression**
- **two independent analog regulators and five threshold val's counter, addition and subtraction**
- **tableau display functions and sum / alarm message processing, incl. Logic combinations**
- **full logic control with 12 inputs, 4 states each**
- **static and dynamic grouping**
- **extensive three-level messaging concept: every action and every status is always told to the bus**
- **Report evaluation and logic control acc.to DIN**

Mains supply:	230V ± 15%, 50Hz
Power consumption	< 0.5W
Surge protection	4kV
Safety classification	IP20
Dimensions (d. h.)	2" x 0.8"

## LCN-UPS

## Sensor Unit (box Mount)

Same features and characteristics as LCN-UPP (see above), however, the load (triac) outputs are omitted.

where there is no power load.

Since it includes all LCN functions (like in LCN-UPP), additionally it can evaluate logic functions, have 2 independent linear regulators plus 5 thresholds (another regulator), etc.

Mains supply:	230V ± 15%, 50Hz
Power consumption	< 0.5W

Safety classification	IP20
Dimensions (d. h.)	2" x 0.8"

## LCN-UP24

### Sensor Unit 24V (box Mount)



AC current. No power outputs.

universal sensor interface and room controller, where mains voltages are not available or not wanted.

Since it includes all LCN functions (like in LCN-UPP), additionally it can evaluate logic functions, have 2 independent linear regulators plus 5 thresholds (another regulator), etc.

Mains supply:	26V ± 20% (22..32V), 50/60Hz
Power consumption	< 0.4W
Safety classification	IP20
Dimensions (d. h.)	2" x 0.8"

## LCN-HU

### Advanced Switch and Dim Unit

Standard characteristics as in LCN-SH.

Extra features:

- **Two power outputs 230V, 500VA**
- **outputs fused individually, blown fuses will be reported**
- **be reported.**
- **Two 0-10V / DSI (for digital ballasts) outputs**



Mains supply:	230V ± 15%, 50Hz
Power consumption	0.45W
Surge protection	4kV
Safety classification	IP20
Dimensions (l. w. h.)	4.5" x 3.4" x 2.6"
Mains supply:	230V ± 15%, 50Hz
Power consumption	< 0.45W
Surge protection	4kV
Safety classification	IP20
Dimensions (d. h.)	2" x 0.8"

## LCN-LD



## Power Switch and Dim Unit

Standard characteristics as LCN-HU

Extra features:

**Two power outputs 230V / 2000VA.**

detected and reported by LCN-LD.

Mains supply:	230V ± 15%, 50Hz
Power consumption	< 1W
	(50W losses @ full load)
Surge protection	4kV
Safety classification	IP20
Dimensions (l. w. h.)	6.7" x 4" x 5.2"

## LCN-DI12



## Display Interface

Microprocessor controlled tableau unit for eight keys and 12+1 lamps.

Characteristics:

**power bulbs and / or LED's**  
**eight inputs for button contacts**

**binary input, etc.**

Extended features:

**Process monitoring signals**  
**Process of alarm signals (in accordance with DIN recommendations)**  
**LED's / lights indicate as on / off / blink / flash**  
**Built in light test circuit**  
**Automatic regeneration of system status after power cut**

Mains supply:	230V ± 15%, 50Hz
Power consumption	< 1W
Surge protection	4kV
Safety classification	IP20
Dimensions (l. w. h.)	4.5" x 3.4" x 2.6"

## Remote Control

### LCN-RT



### Miniature Remote Control

Characteristics:

- **four buttons in a tiny housing**
- **Recognition of short, long and release action**
- **levels**
- **Up to 16\*3 = 48 button commands programmable**
- **Simultaneous operation of up to 250 remote controls in one room**
- add. functions:
- **Programmable code that is evaluated by every LCN receiver.**
- **access control**
- **100% safe access control using serial number of transmitter, operation directly in receiver or in central PC**

LCN-UPP, LCN-HU etc.

Mains supply

standard Li cell 2032

Dimensions: (l. w. h.)

2" x 1.5" x 0.4"

### LCN-RT16



### High Power Remote Control

Extremely powerful remote control with 27 high efficiency IR-LEDs, operated at max. current.

Characteristics as LCN-RT. However, 16 directly accessible buttons.

**Range over 100m. Selectable output power 100% / 11%.**

Supply

9V rechargeable NiMH batteries.

(Charger included)

Dimensions: (l. w. h.)

7.1" x 2.4" x 1.6"

## LCN-RR



## Infrared Receiver

For direct connection to the I-Port of all LCN modules.

codes.

The LCN-RR can be extended up to 110 yd with LCN-IV.

## Linking equipment

### LCN-SK



### Segment Coupler

Microprocessor controlled bus coupling unit designed to link two or more (max. 120) LCN-Bus-Lines.

All LCN-SK units are connected to each other using standard twisted pair cables, like CAT5. Range: 200 .. 4km, depends on selected bus speed (e.g. 500m @ standard 312kB/s).

Safety classification	IP20
Dimensions: (l. w. h.)	4.5" x 3.4" x 2.6"

### LCN-PC



### PC-Bus Link Unit

Links computer with LCN Bus.  
4 LED's show bus status.

Includes 4kV surge protection.  
Dimensions: (l. w. h.) 4.2" x 2.1" x 4.4"

### LCN-IS

### Isolator / Amplifier Unit

Provides galvanic separation of LCN-Bus lines and supplies extension of LCN-BUS by 900 yd.



units.

Units are connected using 2 wire cables i.e. : 2 x 0,18"  
Maximum spacing per LCN-IS, 5 yard .

Dimensions: (l. w. h.) 4.5" x 2.7" x 2.6"

## LCN-LLG



## Glass Core Fibre Optic Extender

Tx / Rx capability.

Used to link units or groups of units that are spaced more than 1.25 miles (standard) apart, i.e. distribution boxes etc ..

Special linkers ranging up to three miles can be ordered on request. A maximum of five units can be connected in series providing a range of six miles (standard version).

Recommended glass core fibres 50/125µm to 100/140µm.

Requires one isolator unit(LCN-IS) per LCN-LLG!

Dimensions: (l. w. h.) 4.5" x 3.4" x 2.6"

## LCN-LLK



## Plastic Fibre Optic Extender

Tx / Rx capability.

Used to link units or groups of units that are spaced more than 50 yd. apart, i.e. distribution boxes etc. .

Up to five LCN-LLK's can be connected in series to cover a distance of 225 yard .

Requires one isolator unit(LCN-IS) per LCN-LLK!

Dimensions: (l. w. h.) 4.5" x 3.4" x 2.6"

## Sensors

### LCN-LS65



### Light Sensor for External Use

Includes 10bit A/D converter, LCN-UPP and fitted in a water resistant housing.

Ready to connect to phase (X,Y or Z), neutral and data.

Dimensions: (l. w. h.) housing: 4.7" x 3.1" x 2.2"

### LCN-LSI



### Light Sensor for Internal Use

indoor use in offices and receptions etc. .

Dimensions: (l. w. h.)

housing: 4.7" x 3.1" x 2.2"

Stick (d. h.) base: 2" in diameter

stick: 1" in diameter with variable height 1" – 2"

### LCN-LSH

### Indoor Light Sensor

Technical data as LCN-LSI, but in a TE housing for the distribution units.



## LCN-TS

## Temperature Sensor



### Specifications:

Temperature range	-40 °C – 120°C
Resolution	0,1°C

Connects to the I-Port of LCN-Modules.

## LCN-RA

## Radar Motion Detector



Advantages of Radar-Sensors compared to standard motion detectors:

- High sensitivity / quick action**
- Independent of body temperatures**
- Less vulnerable ("invisible" installation)**
- Increased immunity to interference**

### Specifications:

Aperture angel	80°
Range	5-10m

Connects to the T-Port of LCN modules.

## LCN-BMI

## PIR Motion Detector

Motion detector for internal use.



Sensor range up to 5 yd/110°.

Connects to the I-Port of LCN modules, up to 4 units can be used at the same module and programmed separately.

## LCN-RS

### Rain Detector

Heated rain detector mounted in waterproof housing.

Includes 9" connection cable  
wall or mast brackets

Zero potential output must be connected to:  
LCN-UPP and LCN-TU4R or  
LCN-SH+/HU and LCN-B8L.



Dimensions: (l. w. h.) 5.7" x 3.2" x 2.2"

## LCN-RS65

### Rain Detector Set

waterproof housing.  
Ready for installation.

Dimensions: (l. w. h.) extra housing 4.7" x 3.1" x 2.2"



**LCN-IW****Wind meter**

different threshold values.

Note: To be used with LCN-UPP or LCN-SH/HU.

**LCN-IW65****Wind Detector Set**

equipped with LCN-UPP.

different threshold values.

Dimensions: (l. w. h.) of extra housing: 4.7" x 3.1" x 2.2"

**LCN-WRL65****Weather Station Set**

Unit comes fully equipped with all the necessary LCN-units described above.

The photocell is on the waterproof housing. Breeze and rain sensors are connected with respective cables.

Dimensions: (l. w. h.)

4.7" x 3.1" x 2.2"

## Peripheral equipment

### LCN AD1

### Analogue / Digital Converter

Universal converter unit with 10 bit resolution. Input galvanically separated from circuitry.

Three input ranges available:

<b>0V to 1V</b>	<b>in 1mV steps</b>
<b>0V to 10V</b>	<b>in 10mV steps</b>
<b>0V to 20mA</b>	<b>in 20µA steps</b>

Includes circuit break recognition  
Requires LCN-SH, LCN-HU, T-port

Dimensions (l. w. h.) 4.5" x 1.4" x 2.6"



### LCN-R8H

### Relay block

Switching power 4000 VA change.  
Standard unit fitted with alternating relays. Each relay fitted with indicator LEDs to show status.

Requires LCN-SH or LCN-HU, P-port.

Mains supply:	230V ± 15%
Power consumption	1.5W
Safety classification	IP20
Dimensions (l. w. h.)	4.5" x 4.5" x 2.62



### LCN-R4M2H

### Relay block for drives (blinds, shutters,...)

power 4000 VA change.  
Standard unit fitted with alternating relays. Each relay fitted with indicator LEDs to show status.

Requires LCN-SH or LCN-HU, P-port.

Mains supply:	230V ± 15%
Power consumption	1.5W
Safety classification	IP20
Dimensions (l. w. h.)	4.5" x 4.5" x 2.62



**LCN-R1U****Relay Module with one Output**

Contact load 230V/16A AC1.

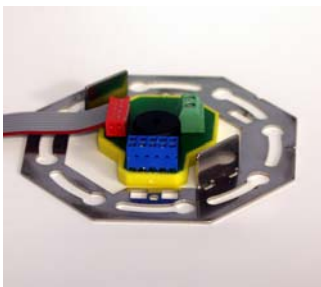
Connect to T-Port of LCN modules. Supplied with a socket for other T-Port units.

**LCN-DSI****DSI-Interface**

For the connection of two independent ballast circuits (with up to 10 DSI ballasts each).

Connects to the T-Port.

Has a socket for other T-Port peripherals, e.g. keyboard interfaces.

**LCN-TEU****Adapter for EIB fourfold Tab-Switch Sensors**

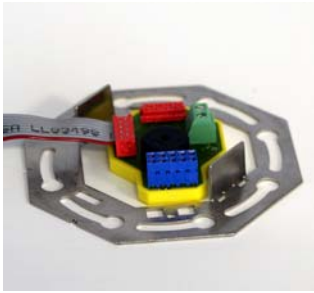
Jung, Berker, Siemens, Feller and Lergand and others.

can be programmed.

Requires LCN-UPP P-Port.

**LCN-TE2****Adapter for EIB Single and Double Tab-Switch Sensors**

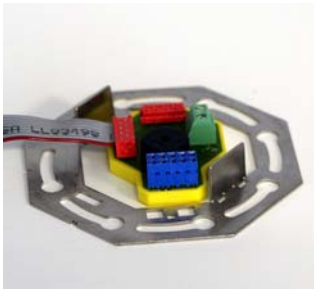
Supports standard single and double tab-switch sensors produced by Gira, Jung, Berker, Siemens, Feller and Lergand.



Requires LCN-UPP P-Port.

## LCN-TE1

### Adapter for special EIB Tab-Switch Sensors



Supports standard single and double tab-switch sensors in connected to one UPP. Other tab-switch are possible too. Requires LCN-UPP P-Port.

## LCN-TU4C

### Sensor Keyswitch



adhesive electrodes to be installed behind non conductive surfaces, like wood, stone or plastic. Max. thickness: 30mm.

Can be used to create invisible keys behind wall covers, in kitchen furniture, etc.

Requires LCN-UPP, UPS or UP24. Uses T-port. Needs mains connection.

Safety classification	IP20
Dimensions (d. h.)	2" x 0.8"

## LCN-T8

### Compact Tap-Action Switch Adapter

gang tap switches. Built in piezo buzzer can be used for signalling errors, alarms etc. Connection wires for tap switches approx. 12".



Requires LCN-UPP, UPS, UP24, SH or HU

Dimensions: (l. w. h.) 1.2" x 0.8" x 0.4"

## LCN-TU4R



### Tap Switch Adapter

Used to connect up to four 230V Tap switches in hollow wall boxes.  
Maximum cable length 45 yard .  
Detection voltage > 60V

Requires LCN-UPP, UPS (T-port)

Safety classification IP20  
Dimensions (d. h.) 2" x 0.8"

## LCN-TU4RL



### Low Voltage Tap Switch Adapter

As LCN-TU4R, but designed for 20-30V AC/DC.

Requires LCN-UPP T-Port.

Safety classification IP20  
Dimensions(d. h.): 2" x 0.8"

**LCN-TU4H****Binary Sensor, DIN-rail Mount**

4 \* 230V inputs. Additional feature: pass through connector for a second TU4H unit giving 4 plus 4 = 8 inputs.

Requires LCN-SH or LCN-HU T-Port

Input voltage low:	0..80V AC
Input voltage high:	150..400V
Safety classification	IP20
Dimensions (l. w. h.):	4.5" x 1.4" x 2.6"

**LCN-TU4HL****Low Voltage Binary Sensor**

galvanic coupling to Neutral is allowed.

For total isolation an external sense voltage of 12..24V, max. 20mA is needed.

Input voltage low:	0..8V DC
Input voltage high:	12..30V DC
Safety classification	IP20
Dimensions (l. w. h.):	4.5" x 1.4" x 2.6"

**LCN-B8H****Eight Way Binary Input Unit, 230V**

Used to connect eight steady voltages.

All inputs galvanically isolated.

Maximum cable length 100yd.

Indicator LEDs show status.

Requires LCN-SH or LCN-HU, P-port

Low input voltage	0..80V
High input voltage:	150..400V (120V Version: 0..40V / 70..300V)
Surge voltage protection	4kV <sub>pp</sub>
Safety classification	IP20
Dimensions (l. w. h.):	4.5" x 2.7" x 2.6"

**LCN-B8L****Eight Way Binary Input, 24 V**

As in B8H, but detection voltage 12V - 30V ac. or dc.

Requires LCN-SH or LCN-HU, P-port

Low input voltage	0..16V
High input voltage:	20..48V
Surge voltage protection	4kV <sub>pp</sub>
Safety classification	IP20
Dimensions (l. w. h.):	4.5" x 2.7" x 2.6"

**LCN-BS4****Binary Current Sensor 4 x 16A**

For the connection to the P-port of LCN-SH and LCN-HU. 4 independent inputs recognise AC (40..100Hz) in the range of 100mA to 16A.

Min. sensitivity	100mA
Max. current	16A
Max. voltage between Inputs:	500V AC
Safety classification	IP20
Dimensions(l. w. h.):	4.5" x 2.7" x 2.6"

**LCN-B3I****Triple Input Binary Sensor**

Designed to interrogate contacts. Very small to fit virtually anywhere. Has a build in 5V supply for his three inputs. Circuitry is internally connected to Neutral: contacts must not be tied to any foreign potential.

Safety classification	IP20
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**LCN-NH12****12V Supply for bidirectional DC Motors / Drives**

To be mounted on DIN-rails.

Input:	230V (120V on request)
Output:	12V=12VA
Safety classification	IP20
Dimensions (l. w. h.):	4.5" x 2.7" x 2.6"

## LCN-NH24



### 24V Supply for bidirectional DC Motors / Drives

As LCN-NH12, but with 24V=/12VA output.

To be mounted on DIN-rails.

Input:	230V (120V on request)
Output:	24V=/12VA
Safety classification	IP20
Dimensions (l. w. h.):	4.5" x 2.7" x 2.6"

## Accessories

### LCN-IV



### Extension for I-Port Unit

Extends infrared receiver, motion detectors, etc. up to 100m, when wires: 0.8mm).

Can also be used to double I-Port sockets. Two LCN-IV yield five I-Ports when connected together.

Connects to I-port

### LCN-K3



### Connector Block

### LCN-C2GR



### Cap. Load

R-C circuitry provides 5VA reactive load per output.

Seldomly needed. Can be used for spike suppression on inductive loads.

Power consumption 0,2W

Dimensions: (d. h.) 2" x 0.4"

**LCN-C2GH****Cap. Load (for DIN-rail)**

As LCN-C2GR. Includes indicator LEDs

Dimensions: (l. w. h.)      4.5" x 0.7" x 2.6"

**LCN-FI1****Noise Filter**

Suppresses noise caused by dimmers on two outputs.  
Only required by LCN-UPP units.

Dimensions: (d. h.)      2" x 0.8"

**LCN-R2U****Relay Module with two Outputs**

electronic outputs of LCN-UPP Module.

Mains supply:      230V ± 15% (120V on request)

Dimensions: (d. h.)      2" x 0.8"

**LCN-NU16****16V Supply (box mount)**

Mains supply:	230V ± 15% (120V on request)
Power consumption	0,7W
Output Power	0,4W
Safety classification	IP20
Dimensions: (d. h.)	2" x 0.8"

**LCN-EST****Gate Switch**

(IP68 = 100 % waterproof). Features sabotage detection.

**LCN-LK****Plastic Fibre Optic Cable**

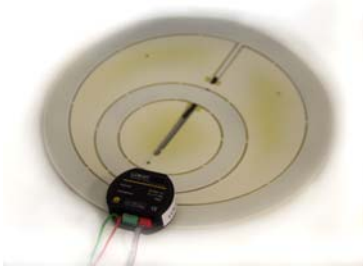
protective tubing 2,2mm.  
 Two inches minimum bending radius .  
 Damping at 650nm: 15db/90yd.  
 Spool lengths: 100yd. or 500yd.

**LCN-LG****Glass Core Fibre**

Spool lengths: 100yd. or 500yd.

## Transponder

### LCN-UT



### Transponder Reader incl. Antenna

Reader for the LCN transponder system (box mount).  
To be connected to the I-Port of an LCN-Module  
Two flat antennas of different size included.

Power supply: 16..28V AC/DC  
Dimensions: (d. h.) 2" x 0.8"

### LCN-ZTK



### Transponder Card

Transponder Card in a check card dimension.

Dimensions: (l. w.) 3,4" x 2,1"

### LCN-ZTS



### Transponder Card for Keyring

Transponder Card

Dimensions: (l. w.) 1,2" x 1,7"

## Indicator Boards

### LCN-TAB8



### Indicator Board with 8 Tab Switches and 8 LEDs

The board is equipped with eight tab switches with integrated LEDs, covered by a plastic foil. Controlling of the switches and the LEDs is done by a separate **LCN-DI12**. For operating the LEDs a separate power supply 12V-1W is required.

Dimensions: (l. w. h.)      8,6" x 8,6" x ,9"

### LCN-TAB16



### Indicator Board with 16 Tab Switches and 16 LEDs

The board is equipped with 16 foil tab switches with integrated LEDs.

**LCN**  
is required.

Dimensions: (l. w. h.)      8,6" x 8,6" x ,9"

## Software

### LCN-P

#### LCN Configuration Software

programming languages. Fast, simple, easy to understand descriptors help select required function.

Automatic detection of new modules.

Maintenance features include: interrogation of module relationships transmitted on the bus.

### LCN-PRO

#### Windows Configuration Software

Can be used online (connected to the bus) or offline (database can be copied to the bus later). Does not require knowledge of

in a familiar tree display.

the modules needed.

project is stored in an database and can be printed out. Maintenance

bus.

### LCN-W

#### Windows Display Software

LCN-Wxx is a group of programs for the user of the building. The user starts with the central display unit offering two display windows.

Simple desktop use offering macro function, implementation of self

Password protection plus a 100 step user level.

higher recommended), mouse, spare serial port and Win 95/98/ME/W2000/XP.

**LCN-WA****Access Control**

Extensive access control system for any large office block, factory

RT16 and/or Transponder LCN-UT.

Supports nearly unlimited number of entrances and users. To simplify setup, user can be grouped. All users and their action can be logged in standard dBase files. Additionally external programs can be called for each access individually. (E.g. can be used for personal greetings from a sound or video file)

requested function.

Since LCN-WA can send all LCN commands (not only those for

files), it can be used other purposes as well.

Requires LCN-W!

**LCN-WT****Timer Unit**

calendar until Dec.31.2099. Supports local holidays. Each entry can

disk.

Includes adding of personal, company or national holidays

Requires LCN-W!

**LCN-WV****Display Extension Unit**

unlimited depth.

Requires LCN-W!