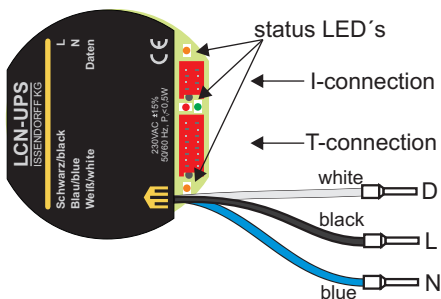


Sensor module for flush mounted boxes

The LCN-UPS is sensor module for building installation with Bus systems. It is a member of the Local Control Network System.



Application

The LCN-UPS module is for installing in dry rooms in deep flush-mounted boxes directly behind, push-buttons, electrical sockets. Its 3 electronic outputs are not external.

The module has a push-button input (T-connection), to which 8 standard push-buttons, KNX-push-buttons or 1-way relays etc. can be connected to.

As second interface, the I-connection is available for IR-receivers, temperature sensors, motion detectors etc.

Important note:

Despite its extensive functionalities, the LCN system is simple to install and parameterize. However a **training course is necessary for every electrician!**

Installation / Connection

The flush mounted module is connected over 3 wires on the supply side :

Description	Colour	Function
D	white	data wire
N	blue	neutral
L	black	230V live phase (L1, L2 or L3)

The power connections are voltage fixed up to max. 4kV according to VDE. additional measures against overvoltage in operational conditions are not necessary. (Measures for lightning protection [coarse protection] should be applied as usual.)

Sensor technology (T- & I-connection)

The red sensor connecting plugs are protected only in a low extent against overvoltage. A contact with a live phase will destroy the module. The sensor terminals are on the N potential, which means they are not decoupled from the electrical isolation. That's why you must make sure, that a protection against contact for the user in every operating condition is ensured. The push-buttons from all of the approved switch panel systems ensure this protection.

The module has two sensor connections, which can be used as additional switchings, if necessary as actuator (LCN-R1U, LCN-DDR).

Note: The plugged connectors (T- & I-connectors) are protected against slipping through

noses on the housing. To remove the plug, please pull upwards on the cable with moderate force. Please don't use violence! Try it first of all on an uninstalled module!

T-Anschluss:

Over a push-button converter LCN-T8, max. 8 conventional push-buttons can be evaluated. Apart from that, there are a selection of sensors that can be connected here alternatively. The module has the required analogue value processing with an accuracy of up to 12Bit.

Thanks to the loop through T-connection on the LCN-R1U, the LCN-UPS can serve as an actuator and switch 16A relay contacts.

Additionally by connecting the LCN-DDR module, the 3 internal electrical outputs can be used and 3 DALI groups controlled. Alternatively the LCN-DDR controls two DSI groups (output 1 und 2).

I-connection

Here the IR-receiver for the remote control can be connected, additionally the binary sensor LCN-B3I, the LCN-BMI (ser.nr. 0A0A.. or later), the LCN-UT (ser.nr. 0C06... or later) and the temperature sensor LCN-TS. These components can be operated parallel on the I-connection by using the LCN-IV. The I-connection can alternatively be served as a counter for pulses up to 1kHz, when no further periphery is connected, max. counter value is 30000.

notes about the sensor technology

The LCN-UPS manufactured in year 2004 or after monitor their sensor technology (T-, I-connection) against overloads and short circuits. Should the module be short circuited on its periphery, due to wiring errors, it will switch off the power supply from the sensor for 4 seconds by itself. If 2 further tests show the same error, it will switch off for 8s + 30s and a status message will be sent to the bus:

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"module reports overload/short circuit periphery."
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apart from that the red LED will flash cyclic, as long as the sensor technology is switched off. In this case check the connected sensor technology and the wiring. The module stays accessible and operational even after these errors!

Parameterization:

In the menus and help texts found in the programme LCN-PRO, further informations and properties of the module are available.

Without parameterization the module has no functions.

Because no access to the module is required when first programming, (no programming button, all functions are controlled over the bus), the module may be installed before being setting up. In this case the serial number of the unprogrammed module should be noted in the building plan, for better identification.

Status display of the lamps

GREEN (flashes constantly):

nr. of flashes	<u>message</u>
1	normal operation
2	self testing-error, module is not programmed
3	bus error: module cannot send
4	(reserved)
5	module is in programming mode

RED (flashes only when occurrences are entered):

nr. of flashes	<u>message</u>
1	key was pressed, command was sent
2	different errors: please check with PC and the LCN-PRO
3	received telegram data was faulty
4	IR-telegram received from unauthorised sender
5	received illegal command (will be ignored)
6	error in the structure of a received command
7	parameter of a command exceeds permitted limit
8	command received cannot be carried out at the moment
cyclic (30s.)	periphery (T-,I-connection) was overloaded and/or short circuited. Both LED's left and right side of the plug, show switch and dimming conditions of the outputs.

Properties of the built-in control programme:

Issued numbers:	module ID: 5..254, group nr.: 5..254 segment nr.: 5..124
group members:	12 (fixed) plus 10 (dynamic)
command tables:	A, B, C & D with each 2 * 8 targets (each 3 commands) and 32 targets at 3 commands (double operation)
links:	depending on: logic, time, sensors, output- conditions, panel and fault report-processing (4-way) according to DIN.
scene storage:	10 x 10 per light group (brightness & ramp)

Timers (amount):

outputs (2):	10ms..40 min
keys (4):	each 1s .. 45 days
key blocking (1):	each 1s .. 45 days
output blocking (2x1):	1s .. 45 days (part & full blockage)
clock (1):	0,3s .. 6500 s
relay (2):	30ms ..4 min

Properties of the built-in control programme:**Measured value processing**

triggering:	8, 10 or 12 bit
pre processing	value corr., hum sound suppression, remote query
evaluation:	input sizes can be calculated as difference values
thresholds / intermitt. regulator	5 thresholds (=10 commands) with hysteresis
controllers:	2 continuous controllers, can be used independently
counting/computing:	0 ... 30000, can be cascaded

Remote control

keys:	16 (with LCN-RT: 4 key levels)
amount access codes:	250 + serial number evaluation (transponder)
zentral access control:	> 16 mio codes
transponder:	16 codes evaluated direct, many over LCN-GVS

Technical data:

Connection

power supply:	230V AC \pm 15%, 50/60Hz (110V AC available)
power consumption:	<0,4W
power connection:	3 wires with end sleeves 0,75mm ²
connection sensor side:	T- und I-connection

Outputs

type:	-none- (3 outputs virtually used)
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Installation

operating temperature:	-10°C..+ 40°C
air humidity:	max. 80% rel., non condensing
environmental conditions:	use as stationary installation according to VDE632, VDE637
protection art:	IP20 when installed in fl. mounted box, only stationary
dimensions (BxH):	50mm \varnothing x 22mm

Technical information and images are non binding. Changes are reserved.

Technical hotline: +49 5066 998844 or www.LCN.de