

## Glass touch- keypad with 10 keys, 2,8" TFT- colour display, timer switch and temperature sensor

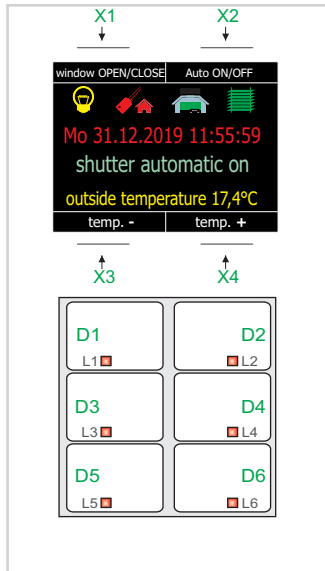
The LCN-GT10D is a 10-key glass touch-keypad with display for the I-port of any LCN module with version 140719 (Juli 2010) or after. It is suitable for temperature regulation, due to its integrated temperature sensor.

A Corona® surrounding light with white LED's, serves as a decorative accent lighting and as a discreet orientation light, so that the LCN-GT4D can be comfortably operated even with a low environmental light.

Apart from that, the bottom 6 keys D1..D6 are supplied with a blue background light. Each of the 6 keys has an integrated status LED that can be individually controlled or react to status messages.

The 4 capacitive working sensor keys are situated behind a 5 mm thick glass front. A slight touch on the surface area is enough to trigger off the functions.

The inscriptions on the bottom 6 sensor keys are carried out individually per inlay - changeable at any time without difficulty.



### Scope of delivery

LCN-GT10D, LCN-NUI (power supply), mounting frame, 4 screws 3,2 x 15mm, inlay for inscription, pen, CD & 1 sheet of paper (blank).

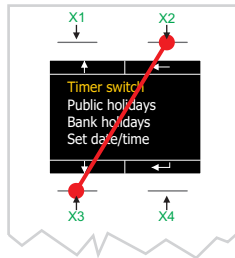
### How it functions

The **sensor keys** on the LCN-GT10D react to touches on the glass surface. Depending on the duration of contact, an appropriate LCN-control command (Short, LONG or RELEASE) will be sent. When no configurations are made to the keys, the keys are assigned as follows: X1 - X4 work on the keys in the A table according to their numbers. The bottom 6 sensor keys work on the D table of the module. Further information can be found in the online help on the LCN-PRO. A signal sound (can be switched off) informs over key contact. There is the possibility to trigger off further keys, by touching two keys at the same time. Keys D1+D6 trigger off D7 and D2+D5 the key D8. This type of double touching is especially suitable for functions that may not be triggered accidentally (central off, switching the alarm system, etc).

The 6 **status-LED's** in the bottom sensor keys can be programmed individually (ON, OFF, BLINKS, FLICKERS).

The **Corona®-surrounding light** is controlled over the LED-command “GT-brightness”. The brightness of the status-LED’s can be altered in 2 steps and the Corona®-surrounding light is adjustable in several steps. On the 2,8” **TFT-colour display**, six symbols, 3 text rows with each 63 characters and 4 fields for the key captions, can be shown. If the key captions are not needed, then even 4 text rows are possible. The LCN-GT4D supports a **language changing**: german, english, french, spanish, polish, turkish, russian and arabian, that can be toggled during operation. The appropriate command can be found in the LCN-PRO. The display texts for other languages are entered in the LCN-PRO under “3 Ports / I-Port”.

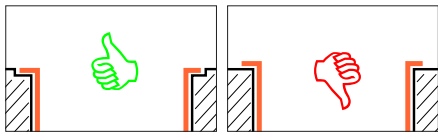
The LCN-GT4D has a built in 24-channel **timer switch** with 96 switching time periods. The 24 channels can be freely described in the LCN-PRO, so That a simple change of switching time periods can be carried out through the user. The user menu is called up through touching the keys X2+X3 at the same time - see also online help in the LCN-PRO.



## Installation

**Note:** When the temperature sensor is being used, the LCN-GT4D should not be installed near heating sources, lights, cooling devices or a loaded (warm) LCN-UPP's, because these factors falsify the temperature value. In this case it is better to install an additional LCN-GRT!

**Important:** The LCN-GT10D must not “tilt” on the wall, as this will lead to false triggering. That is why the edge of the flush mounted box or cavity wall box must be countersunk when installing, to guarantee a stable fixing and a flawless function of the LCN-GT10D.



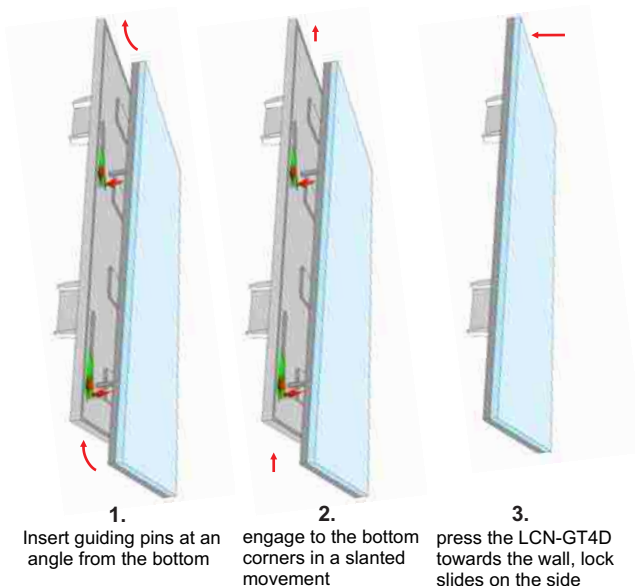
**Important:** The LCN-GT10D must not “tilt” on the wall, as this will lead to false triggering. That is why the edge of the flush mounted box or cavity wall box must be countersunk when installing to guarantee a stable fixing and a flawless function of the LCN-GT10D. When installing on Kaiser cavity wall flush mounted boxes, the separating strip must be removed from the middle of the box, as this protrudes around 0,5mm.

Pull out the plastic slider a few millimetres on the LCN-GT10D when fixing to the supplied mounting frame. When the slider is pressed back in, The LCN-GT10D is locked firmly to the mounting frame.

Connect the mounting frame to the I-port and screw to the flush mounted box.

Pull out the plastic slider sideways at the rear side of the key-sensor until it resists (about 8mm), and insert the LCN-GT10D at a slight angle from the bottom towards the mounting frame. At the bottom area, the LCN-GT10D must be hooked into the corners of the mounting frame and pressed towards the wall.

Through pushing in the plastic slider on the side, the LCN-GT10D is locked firmly onto the mounting frame.



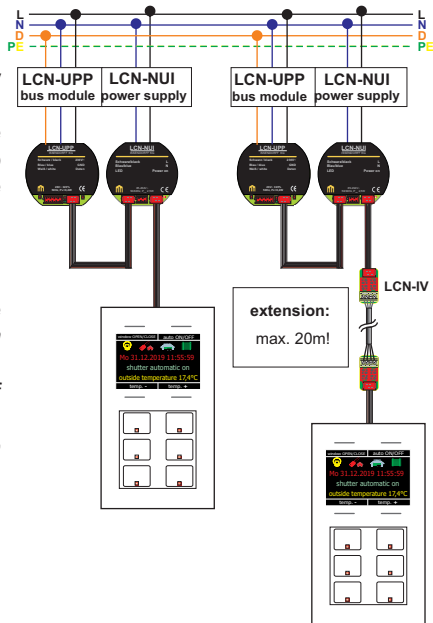
### Connecting the modules

Install the enclosed power supply LCN-NUI in flush mounted box with the LCN-UPx. Simply loop the LCN-NUI into the connection cable. The power supply is given directly over the four-pole I-port extension. Connect the cable to the LCN-IV to extend the I-connection of the LCN-GT10D. (in the graphic: variation right).

### I-connection guidelines

The I-connecting cable to the LCN module can be extended up to 50m (*including all sections in between*) with an LCN-IV (use  $\geq 0,8\text{mm}\varnothing$ ). But: The distance from the LCN-NUI to a maximum of 2 GT-key-sensors must not exceed 20 metres.

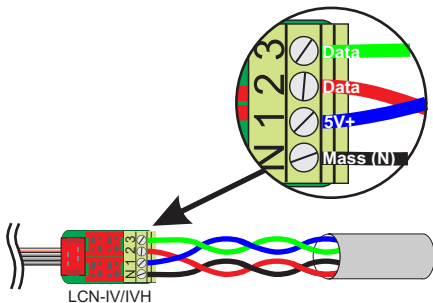
Please see also "TDI-connection of peripherals" on [www.LCN.de](http://www.LCN.de).



### Note about I-Port-extension on the LCN-IV/IVH

#### correct:

The data wires are connected here from different pairs.

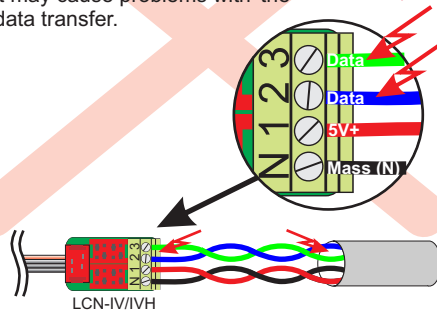


#### wrong:

The data wires must not be connected from just **one** pair!

Reason:

Through capacitive overcoupling, it may cause problems with the data transfer.



### Bringing into operation

**requirements:** The LCN-GT10D can be operated on LCN bus modules with firmware 140719 (July 2010) or after and be parametrized with the LCN-PRO version 4.x or after.

**Settings:** The LCN-GT10D is recognized automatically from the module and the temperature is registered in the variable 4 (R1var) - you can check the value in the analogue status window of the LCN-PRO.

Up to 4 periphery devices may be operated parallel to the LCN-GT10D on the I-port, e.g. LCN-GRT, -RR, -GT3L, -GT2, -GBL, however not the LCN-ULT, -GT4D or IOS-devices. please see also "TDI-connection of peripheries".

**Important:** When operating the LCN-GT4D/-GT10D, no DALI/DSI signals can be given out! Operating the LCN-IV as pulse counter / counter input, is not possible! The power supply for the LCN-GT10D must only be supplied from the LCN-NUI or the optionally obtainable LCN-NIH.

The status messages from the LCN-GT10D reacts to older LCN modules as follows:

<u>Serial number from sending module</u>	<u>retrievable information</u>
060101 (Jan. 1996) . . . . .	relays- / binary sensors- / sums- / output status
0A0A0B (Oct. 2000) . . . . .	same as 060101, additionally: actual value
100A06 (Oct. 2006) . . . . .	same as 0A0A0B, additionally: set value



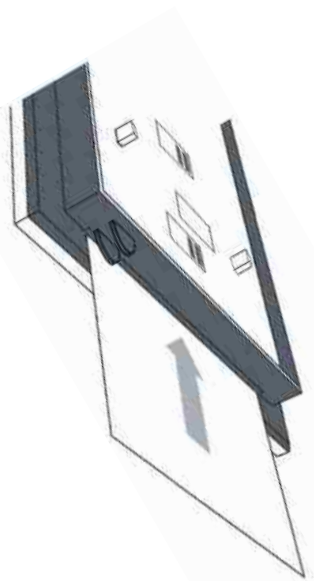
### Inscription

You will find the inscription software LCN-GT on the enclosed CD for designing your inlays. The caption inlay must be cut to **61 mm \* 90 mm**. Standard 80g reprographic paper is suitable and unproblematic for processing. Semitransparent paper/inlayer is even better for the optimum luminance of the LED's.

### Inserting the inlay into the key-sensor

Pull the plastic slider at the rear of the key-sensor to the side. Guide the inlay through the slit on the bottom edge of the LCN-GT10D as far as it will go.

**Tip:** When each corner of the inlay is trimmed around 2mm, it is easier to guide through the slit. When changing the inlay/paper, the GT10D should be removed from the wall.





**information:****Technical data LCN-NUI**

input voltage:	LCN-NUI → 110V - 230V AC ±15%, 50/60Hz
connection input voltage:	2 wires with wire end-sleeves 0,75mm <sup>2</sup>
output voltage:	5V DC (stable)
power output:	max. 2,5W
connection output voltage:	3 I-port connectors
environmental temperature:	-10°C to + 40°C
air humidity:	max. 80% rel., non condensing
usage:	stationary installation according to VDE632, VDE637
protection art:	IP20
dimensions:	∅ 50mm x 22mm

**Important note:**

Despite its extensive functionalities, the LCN system is simple to install and programme: It's all in the hands of the electrician. However a **training course is necessary for every electrician** who installs this system. The direct users support over the telephone hotline, is only free of charge and open to installers who have taken part in a training course.

### Technical data

#### Connections

power supply: over the I-port (with LCN-NUI/-NIH)  
LCN-connection: sliding contacts to connect on to the mounting frame

#### Function

keys: 10 capacitive sensor areas behind glass, with the  
functions: SHORT / LONG / RELEASE  
LED's: 6 LED's to show LCN status messages  
functions: OFF / BLINKING / FLICKERING / ON  
white Corona®-LED's controllable over command  
"GT-brightness", functions: OFF / BLINKING / FLICKERING / ON  
the brightness is adjustable in steps  
key background-LED's (blue), functions: ON / OFF  
display: 2,8" (71mm) TFT-colour display (320x240 pixels), 65536 colours  
timer switch: 24 channels with 96 switching times  
temperature sensor: measuring range from -10°C to +40°, triggering 0,1°C  
accuracy type 0,3°C from +15°C to +30°C

#### Installation

dimensions (W x H x D): 90mm x 160mm x 15,5mm (5mm glass thickness)  
environment: -10°C to +40°C, air humidity: max. 80% rel., non condensing  
usage: stationary installation according to VDE632, VDE637  
protection art: IP 20  
installation: install on two flush mounted boxes