

## capacitive key sensor with 4 inputs

The LCN-TU4C is a key sensor with acoustic sound for the I-port. Up to 4 sensor areas can be evaluated with just one LCN-TU4C.

It can be operated on all LCN modules with firmware 140719 (July 2010) or after.

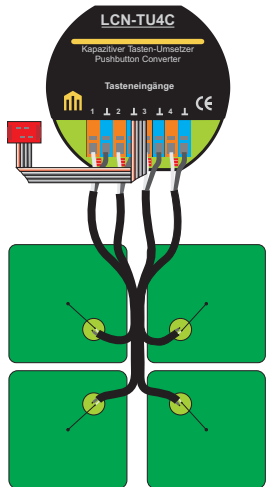
### Included in delivery

LCN-TU4C & 4 sensor pads

### Function

Every key input differs the key touch types “**HIT**, **LONG** and **RELEASE**”. The sensor pads are self adhesive and can be attached to the back of any non-conductive materials. The areas react in the same way as normal LCN standard keys - only without moving parts.

1. LCN-TU4C: Input 1 triggers key A1, input 2 triggers key A2, and so on.
2. LCN-TU4C: Input 1 triggers key A5, input 2 triggers key A6, and so on.



### Connection

The LCN-TU4C can be operated with the following I-connection peripherals at the same time: LCN-TS, -GRT, GT4D, -GT10D, -GT2, -GT3L, -ULT, -UT, -LSA, -BT4H/-BU4L as binary sensor & -RR. No more than 5 I-periphery devices at the same time on one I-port.

**Important:** The following peripherals may **NOT** be connected at the **same time**: LCN-TU4x, -T8 & -TEx or LCN-BT4H/-BU4L as key converter!

The sensor pads are self adhesive and can be attached to the back of any non-conductive materials.

The white sensor wires are connected to the orange terminals. The wires for shielding (black) are connected to the blue terminals. Please be aware of this connecting order.

All modules with firmware 140719 or later will detect the LCN-TU4C automatically. After switching on or resetting, the LCN-TU4C will carry out a calibration automatically (about 10 seconds.) During this time the key-pads should not be touched. A reset can be applied by switching off the power supply to the LCN module (LCN-UPx) for a minimum of 5 seconds.

### About operating

The touching speed has an influence over the recognition: Behind very thick or strong damping materials (e.g. wood that's not quite dry), the maximum sensitivity is reached by touching the key-pads quicker (shorter), behind earthed materials (e.g. wall tiles,

earthed over the wall), a slow contact (longer) is probably better.

It is possible to operate a 2<sup>nd</sup> LCN-TU4C on one module (LCN-IV required), then 8 sensor areas can be evaluated. To configure an LCN-TU4C as the 2<sup>nd</sup>, please carry out the following:

1. Short circuit the inputs 1+2 (only orange terminals) with a wire bridge during the voltage return.
2. The input LEDs 1+2 are flashing, the wire bridge can be removed. Now reset the module or switch off the power supply again. This LCN-TU4C now works on the keys A5-8.

With a wire bridge between the orange terminals 1+3, the LCN-TU4C can be set back again, so it works on the keys A1-4.

### Materials:

As touching surface, different materials can be used. When installing you should make sure, that the sensor area has direct contact with the chosen material.

Following operating possibilities in dry rooms

**wood** max. thickness 25mm

**tiles (standard)** max. thickness 20mm, depending on dampness

**granite** max. thickness 20mm, impregnate natural stone against dampness!

**plastic, glass** max. thickness 25mm

**Note:**

For the range, general valid rules can hardly be specified. In disturbed environments, the range could be smaller. With flat surface contacts, larger ranges are most likely.

**We recommend urgently, that you carry out a test function before the final installation!**

**Technical data****Connection**

power supply:	not needed (over I-port)
keys:	capacitive, HIT/LONG/RELEASE 4 control-LED's
terminals:	screwless, solid or fine wire 0,5-1,5mm <sup>2</sup>
max. connection length to sensor area:	500mm (not extendable)

**Installation**

operating temperature:	-10°C..+ 40°C
environmental conditions:	for use as stationary installation according to VDE632
protection art:	IP20
dimensions:	LCN-TU4C 50 mm ø x 22 mm sensor area 60 mm x 60 mm (W x H)

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

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