

LCN | Transponders

LCN-ULT

Universal transponder reader

The LCN-ULT is a universal transponder reading device for installing in flush mounted wall boxes. It recognises all LCN- transponders and passive transponder types of other manufacturers, Junghans transponder watches and most transponder car keys. Firmware updates are available for any future transponder types, when necessary.

Application

The LCN-ULT is suited for indoor and outdoor use and intended for fitting in a 68 mm flush mounted boxes. It is for reading passive transponders at a distance of up to 7 cm. Access control, clocking systems and automatic building functions can all be set with the reading device. The reading device comes with a white or silver-grey plastic cover. The five metre long connection cable is already fitted. The LCN-ULT can be connected to the I-Port of any LCN module dating from 2009.

Hardware

- LCN-ULT reading device for transponder
- LCN-ULT master card
- LCN-IV I-Port extension
- LCN-NU9 power supply
- Torx-Bit TX-10
- Torx fixing screw
- Installation guide

Note:

For more detailed information please refer to the installation guide.



Function:

When the transponder is within reading distance of the LCN-ULT, the individual transponder-ID is transmitted to the I-Port of the connected LCN module and evaluated.

The LCN-ULT remains unconfigured on delivery. Only needing to be done once, the necessary transponder type can be set using the master card so that only corresponding transponder data from the same system can be read. Every transponder can be given individual authorisation with the LCN-PRO software.

Models:

LCN-ULTW
Colour: white



LCN-ULT

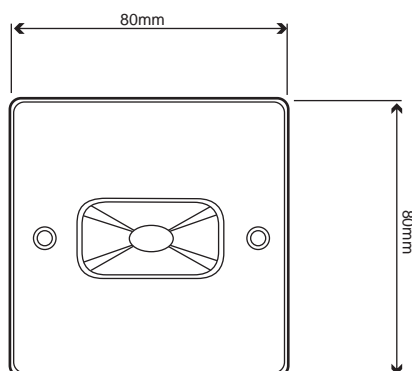
Universal transponder reader

- Access control, time registration and building functions
- For passive transponder types and most transponder keyrings
- Compatible with LCN modules as from version 100A06

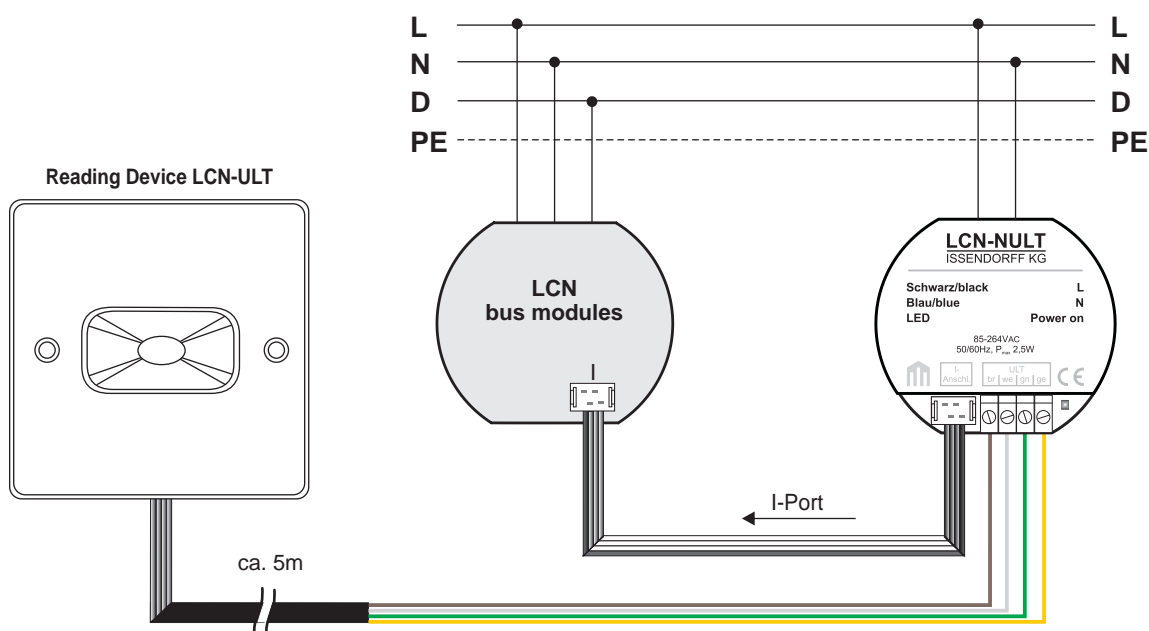
Dimensions:

LCN-ULT (L x H):	80 x 80 mm
Fixing Height:	11.7 mm
Socket Depth:	27.7 mm
Connection Cable:	5 m

Assembly:	decentralized installation in deep flush-mounted box
Frame:	Available in white and silver



Circuit diagram



Technical Data

Connection:

Power supply:	110-230 VAC \pm 15%, 50/60 Hz
Connection input voltage:	strand wire with end ferrules 0,75 mm ²
Output voltage:	9 VDC stabilized
Power output:	max. 2.5 W
LCN connection:	I-Port socket

LCN-ULT:

connection:	screw terminal max. 1.5 mm ² solid, 1 mm ² , strand wire 0.75 mm ² with ferrules
Current consumption:	max. 110 mA
Operating temperature:	10 to 40 °C
Installation:	max. 80% rel., non-condensing Stationary installation according to VDE
Degree of protection:	IP 20
Dimensions:	\varnothing 50 x 22 mm
LF magnetic field:	120-140 kHz
Backlight:	Duo-LED blue/red
Reading distance:	0.2-7 cm (depending on Transponder type and installation location of the antenna)

Supported

Card systems:	LCN-ZTK; LCN-ZTS; LCN-AT2; EM-H 4001/ 4002/ 4102/ 4402/ 4050/ 4150/ 4450, Megamos, ATMEL, Philips, Sokymat Nova, TexasInstruments, Temic, NXP, further systems on request
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Operating temperature:

Installation:	-30 to 70 °C Stationary installation according to VDE 632 and VDE 637
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Degree of protection:

Area of application:	IP 65 indoor/outdoor
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Material:

Weight without cable:	ASA (weather- and UV-resistant) 85 g
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LCN-ZTK2

Transponder in bank card format

The LCN-ZTK2 is a transponder card with two integrated transponders for 125kHz and 13,56MHz.

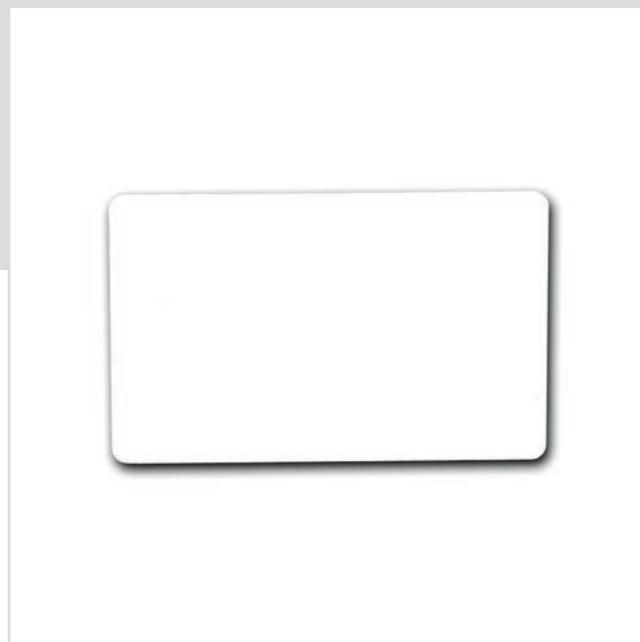
Application

The modules LCN-ULT and LCN-GT2T recognise the LCN-ZTK2 transponder and trigger freely programmable commands in the LCN system.

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Note:

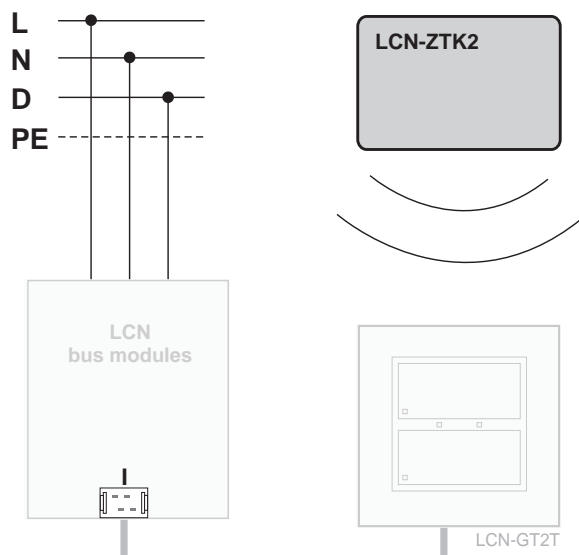
Each transponder chip in the card sends its own code.



Technical Data:

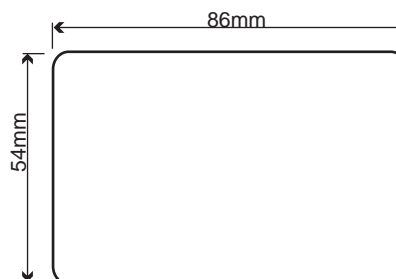
Card type:	Dual chip card
RFID Chip:	EM4102 (Universal) und MIFARE
Frequency:	125 kHz and 13,56 MHz
Material:	ABS
Operating temperature:	-45 to +70 °C
Storage temperature:	-50 to + 70 °C
Degree of protection:	IP 68

Circuit diagram



Dimensions

LCN-ZTK (L x W x D): 54 x 85 x 0,8 mm



LCN-ZTS

Transponder as keyring

The LCN-ZTS is a keyring with an integrated transponder but has slightly less range than the transponder card version.

Application

The LCN-UT module recognises the LCN-ZTS transponder and triggers freely programmable commands in the LCN system.

Note:

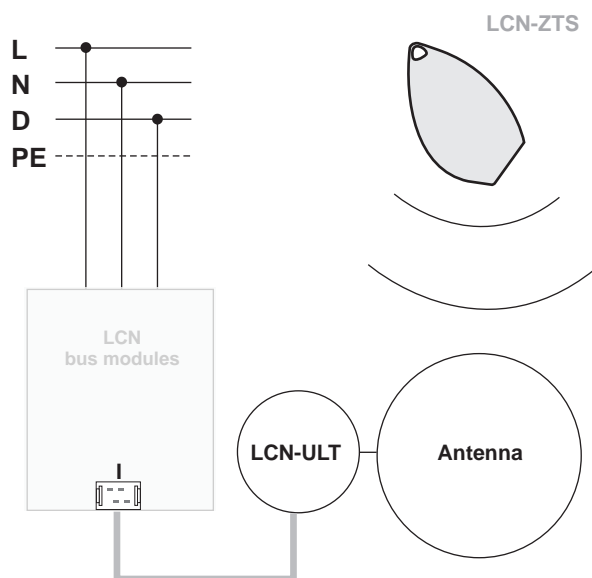
For more detailed information please refer to the installation guide from the LCN-UT.



Technical Data:

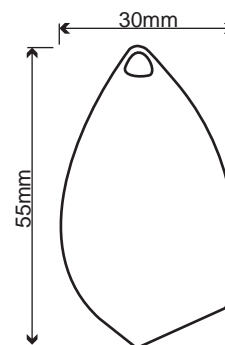
Card type:	TAG SAIL B
Compatible card system:	EM H 4002
Frequency:	125 kHz
Material:	ABS
Operating temperature:	-45 to 85 °C
Storage temperature:	-50°C to 70 °C
Degree of protection:	IP 68

Circuit diagram



Dimensions

LCN-ZTS (L x W x H): 30 x 55 x 7 mm



LCN-ATW

Active transponder system for wall mounting

The active reader LCN-ATW evaluates active transponders at a distance of up to 4 meters. In its typical application, persons who are to be detected carry active transponders around with them in different forms. By simply pressing a button on the transponder handset LCN-AT2, which is supplied, a range of up to 50 meters can be achieved.

Application

The LCN-ATW offers access control at a greater distance which enables greater convenience than passive transponders. Doors can be opened fully automatically meaning conventional keys are unnecessary. In comparison to other keyless entry systems such as finger-print sensors etc., the active transponder is entirely hands-free.

The LCN-ATW can be extended and used as a tracking system, registering the exact location of personnel. The transponders are available in different shapes and sizes including buttons for remote control functions which can be used in hotels for example. In such an instance, hotel guests can call the waiter using their room key whilst also transmitting their name and table number, all in one step.

Hardware

- Active reading device (IP 67) with antenna in cover
- Including LCN-SHS, LCN-NH24, LCN-IVH
- LCN-AT2 handheld transponder transmitter with two buttons.

Information to transponder-systems

Passive transponder systems (LCN-ULT) are of particularly good value. Not requiring any batteries, they can be applied in more compact versions such as credit cards.

Disadvantages:

- 1: Limited range. 2: The range is dependent on the angle of the card to the antenna. 3: Only one transponder can be registered at a time; the transponders must enter the antenna field in succession.

Active transponders require a battery which needs to be changed every two years. In return they have many advantages:

- 1: Containing a built-in antenna, the LCN-ATW has a max. range of 4m and can be extended with an external antennas, if necessary.
- 2: The small transponder has 3 internal antennae so that the reading device can receive its signal from any position.
- 3: Thanks to the intelligent anti-collision function, up to 10 transponders can be registered at the same time by the reading device.

Note:

For more detailed information please refer to the installation guide.



Function:

If a person approaches the antenna (detection field is adjustable using the rotary potentiometer) the person's active transponder is activated and transmits its ID. The LCN-ATW then transmits this ID number to the I-Port of a bus module. Numerous transponders in the field are then buffered in the reading device's memory and sent in sequence to the I-Port. The transponders are available in different shapes and sizes including buttons for remote control application (LCN-AT2).

A transponder is automatically activated as soon as it enters the reading device's detection field. Transponders fitted with one or two buttons send wireless commands to the reading device (LCN-ATW) when the buttons are pressed without having to be in the antenna's detection field (active transmission). Active transmission (push button) has a max. range of 50 meters in open surroundings. For status monitoring there are two LEDs (green/red).

LCN-ATW

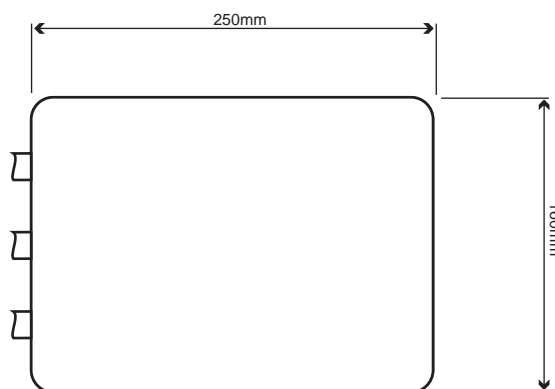
Active transponder system for wall mounting

- Access control, time registration and building functions
- For active transponder types
- Range adjustable from 0,5 to 4 metres

Dimensions

LCN-ATW (L x W x D): 160 x 250 x 90 mm

Assembly: Screws



Technical Data

Connection:
Power supply: 230 VAC \pm 15%, 50/60 Hz
optional 110 VAC

Input power: 8 W
LF magnetic field: 125 kHz

Distance (LF, passive transmission.): Adjustable 0.5 to 4 m
HF (high frequency): 868 MHz (free of charge ISM Band)

Distance (HF, active transmission): 50 m in open areas
Communication type: bidirectional (LF and HF)

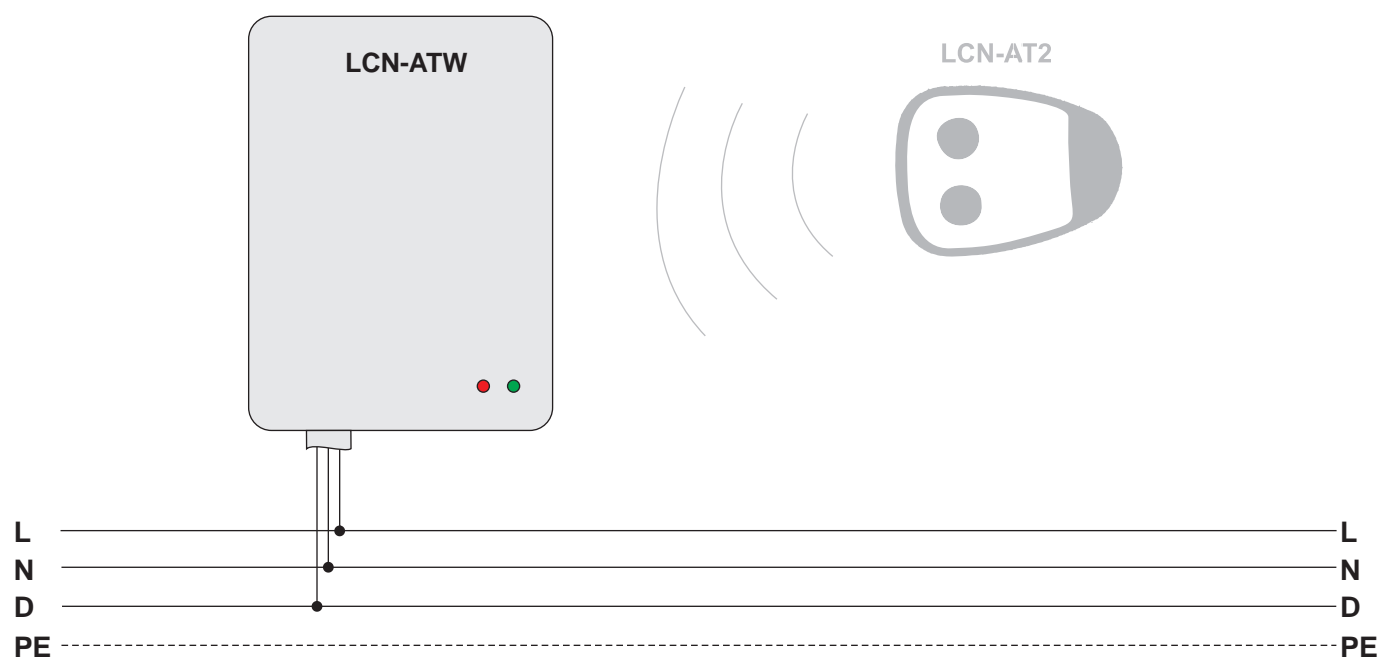
General details:

Operating temperature: -20 to 50 °C
Environmental conditions: Stationary installation according to VDE 632, VDE 637,

Degree of protection: IP 65
Application: Outside/Inside mounting
Colour: Light gray RAL 7035
Material: Polycarbonate

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Circuit diagram



LCN-AT2

Handheld transponder transmitter with two buttons

The LCN-AT2 is an active transponder for the active transponder system LCN-ATW. With its two extra buttons it can also be used as a remote control within the LCN system .

Application

For use in conjunction with the active transponder system LCN-ATW for automatic building functions such as opening doors, clocking systems and access control. Using the integrated hand-held sender, commands can be sent to the LCN system at a range of up to 50 meters.

Hardware

- Transponder for the transponder system LCN-ATW
- Two buttons for manual triggering of LCN commands
- Easy to handle shape using as keyring



Function:

The LCN-AT2 is automatically activated as soon as it enters the LCN-ATW detection field. Irrespectively, it can also send commands over its two buttons to the antenna without having to be in the antenna's detection field (active transmission).

For status monitoring there are two LEDs (green/red).

Note:

For more detailed information please refer to the installation guide.

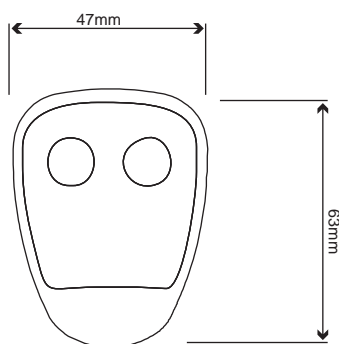
LCN-AT2

Handheld transponder transmitter with two buttons

- Actice transponder for the LCN-ATW
- Two additional keys as remote control for LCN

Dimensions

LCN-AT2 (L x W x D): 47 x 63 x 17 mm



Technical Data

LF-Technique, low frequency

Low frequency
 magnetic field (LF): 125 kHz
 Range: max. 4 m
 Communication type: bidirectional
 Reception characteristics: three dimensional

HF-Technique, high-frequency

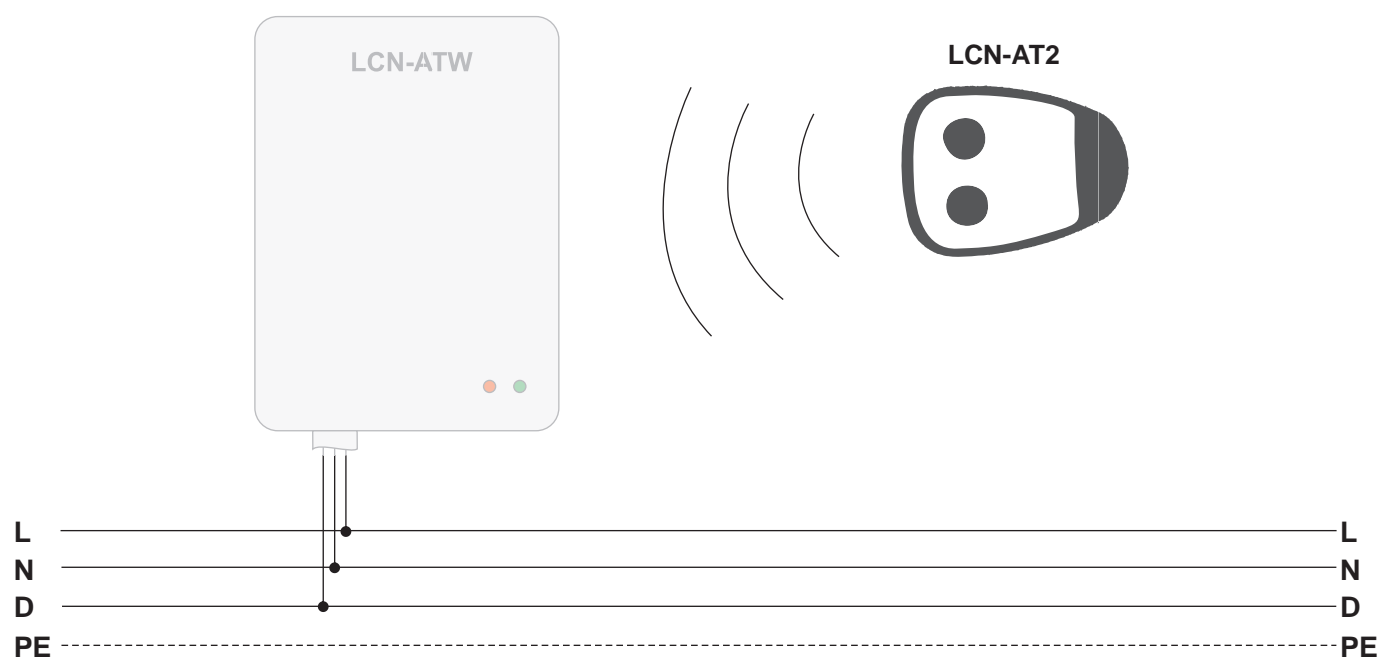
Radio frequency (HF): 868 MHz UHF
 Range: up to 50 m
 Communication type: bidirectional

Power supply

Power supply: 3 VDC
 Battery: Lithium cell 2450
 Operating temp: 40 to 85 °C
 Lifetime: Min. 2 years, typical 4 – 5 years
 Degree of protection: IP 67
 Colour: black
 Material: PA6 GF10 G
 Weight: 29 g

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Circuit diagram



LCN-GT2T | LCN-GTS2T

Transponder reader with two capacitive sensor keys and Corona® light

The LCN-GT(S)2T is a transponder-reader with integrated infrared receiver, two capacitive sensor keys and Corona® light. It is mounted on a flush-mounted box using the supplied mounting plate and firmly anchored with a slide. The connection is made via the I-connection of any LCN module from version 17070A (July 2013).

Supported are 13.561 MHz NFC transponders of the type e. g. Mifare, Legic, etc. (ISO14443-A (type 1,2,4) and ISO15693 (type 5)).

Description

The two capacitive sensor surfaces are arranged behind a 5 mm (3 mm) thick surface. A light touch of the surface is enough to trigger functions. A status LED integrated in each sensor surface provides information on the current status of any actuators or sensors in the building. Four states are possible.

The integrated NFC reader reads the cards when they are held directly in front of the glass panel. The code is transferred from the module to the LCN bus. The eight digit code can be processed directly in the module („small“ access control) or with the LCN-GVS („large“ access control) In addition, the LCN-GT(S)2T offers a Corona® light with white LEDs for wall illumination and elegant backlighting of the keys. This allows the LCN-GT(S)2T to be operated comfortably even in low ambient light. The individual inscriptions for the LCN-GT(S)2T are transferred to a foil or paper and placed behind the glass surface. The inlay can be recreated at any time, so that changes in the key assignment are no problem.

Application fields

The LCN-GT(S)2T is designed for installation in dry interiors. It can be used for all switching, regulating and control tasks as well as for access control and time recording in the LCN bus.

Hardware

- LCN-GT2T
- LCN-NUI
- Mounting panel
- Printing foil
- Installation guide

Note:

Attention: Plug in voltage-free!

Switch off the power supply LCN-NUI before plugging in the LCN-GT(S)2T. Please refer to the installation guide for detailed information.



Functionality:

The sensor surfaces of the LCN-GT2T react capacitively to contact with the glass surface. Depending on the duration of contact, a corresponding LCN control command Hit, Hold and Release is sent. The control command is transmitted to the I-Port of an LCN module via the mounting plate included in the scope of delivery.

The two status LEDs in the sensor surfaces are individually controlled via the I connection and configured via LCN-PRO as On, Off, Flashing or Flickering.

The transponder function is triggered via NFC standard (Mifare, Legic etc.) e. g. via transponder card, smartphone or other compatible peripherals. The integrated infrared receiver LCN-RR offers, e. g. via remote control, another possibility for remote triggering of functions.

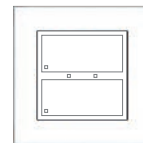
Models:

LCN-GT2T

Size: 90 x 90 mm

Colour: white
black
champagne

LCN-GT2TW
LCN-GT2TB
LCN-GT2TC

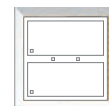


LCN-GTS2T

Size: 75 x 75 mm

Colour: white
black
champagne

LCN-GTS2TW
LCN-GTS2TB
LCN-GTS2TC



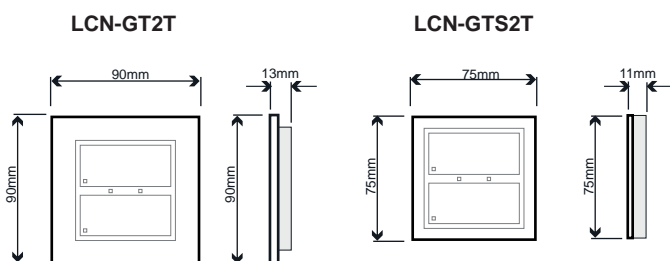
LCN-GT2T | LCN-GTS2T

Transponder-reader with two capacitive sensor keys and Corona® light

- Two capacitive sensor surfaces behind glass, two status LEDs
- NFC transponder-reader
- Integrated infrared receiver
- Incl. white Corona light wreath
- Incl. button backlighting
- Individual design of the keys with inlay
- Operation on the I-Port

Dimensions:

LCN-GT2T (L x H x D):	90 x 90 x 13 mm (5 mm glass thickness)
LCN-GTS2T: (bevelled edges)	75 x 75 x 11 mm (3 mm glass thickness)
Assembly:	By means of mounting plate on flush mounted box.
Frame:	Available in white, black and champagne, special customized colours.



Technical data

Connection

Power supply:	via LCN module + LCN-NUI
LCN-Connection:	I-Port

Keys:

Type:	two capacitive sensor surfaces with status LED behind glass
Function:	Short, Hold, Release
Inlay:	via changeable foil

LEDs:

Status-LEDs:	2 red LEDs for displaying LCN status messages, Function: Off/Flashing/Flickering/On
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Keypad background LEDs

Corona® LEDs:	White Corona® LEDs can be controlled via the „LED bright ness“ command
Reading distance:	0.2-7 cm (depending on transponder type and installed location of the antenna)
Supported card system:	Mifare, Legic, Type (ISO14443-A (Typ 1,2,4) and ISO15693 (Typ 5)).

General details:

Operating temperature:	-10 to +0 °C
Humidity:	max. 80% rel., none condensing
Environmental conditions:	Stationary installation according to VDE 632, VDE 637
Degree of protection:	IP 40

Circuit diagram

