

LiSA- User manual

Code keypad LKP-4





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1. Set-up of the code keypad LKP-4

1.1. General

The LiSA code keypad LKP-4 replaces the current LKP-2. As before, it can be connected both to the bus and conventionally. If controlled conventionally, the input signals are connected to I1-I8 (or SV2), the output signals to O1-O8 (or SV1). The LKP-4 switches the signals connected to I1-I8 or, optionally, the internal switching potential, through to the outputs O1-O8 according to the programming.

Therefore the LKP-4 cannot only be operated on the LiSA bus or CAN bus but also on previous LiSA generations as well as almost all third-party controllers.

1.2. Technical data

Electrical data:

Supply voltage: 10 – 24 VDC
Switching voltage: 10 – 24 VDC
Signal polarity: npn, pnp

Measurement: 96 x 115 x 30 mm (w x h x d)

Degree of protection: IP67 at the front panel;

The electronic components are protected according to the requirements.

Thresholds:

Code domain: 1000 - 99999999

Max. number of keys: 32

Connections: (refer to the overview below)

LiSA bus: X1: -H; S; 24V (function not yet available)

CAN bus: X4: -H; CAN-L; CAN-H; (function not yet available)

Conventional: X1: -H; 24V

X2 and SV1: I1 – I8 (Input signals)

X3 and SV2: O1 – O8 (Output signals)

Jumper: The switching logic is determined by soldered jumpers.

SJ 1-16: If signals are switched through from input X2 to output X3 select whether they have a pos. or neg. logic.
(set of jumpers next to the relays)

SJ 3-14: Select if the internal switching potential is used; positive logic/negative logic (jumper next to X2)

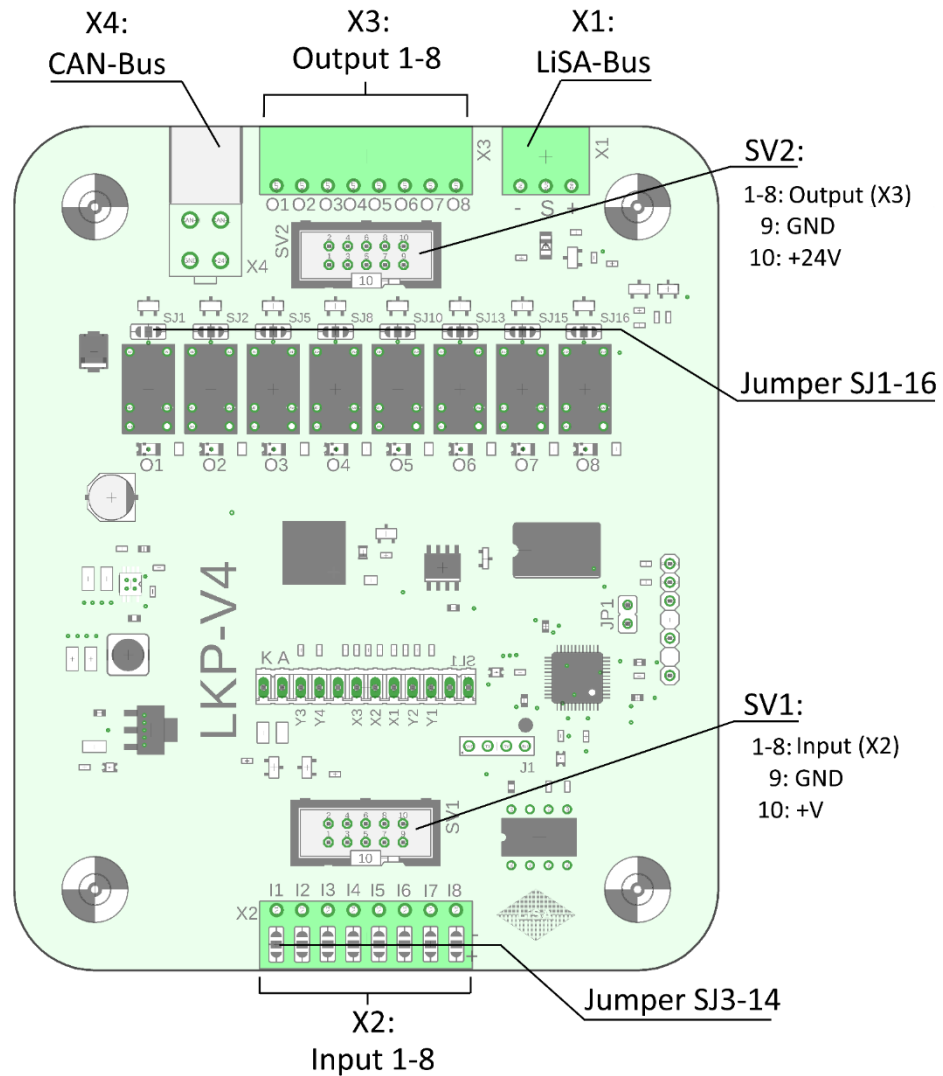
JP 1: Jumper (currently not used)

Operation:

- keypad
- sum for signalling entry/operating mode



1.3. Connection overview:



2. Function

2.1. Using the LKP-4 on the LiSA bus or CAN bus

When using the code keypad LKP-4 on the LiSA bus, only the 3-wire connection –H, S, 24V at the LiSA bus is required for the wiring. It is equally possible to operate it via CANopen. Then the LKP is a fully functional BUS module which is controlled using the keypad.

Note: this function is currently not available yet.

2.2. Using the LKP-4 with conventional connecting terminals:

When using conventional connecting terminals, the connections are to be created in accordance with the requirements (refer to the connection diagram below)

Input signals are applied at terminals I1 to I8.

Output signals are put out at terminals O1 to O8.

In parallel with the above listed terminals, you can also reach the inputs and outputs via the ribbon cable connector (SV1 and SV2).

The ribbon cable connector SV1 can also be used to supply the keypad with voltage.
(pin 9 = GND, pin 10 = +24V)

Use the soldered jumpers SJ 1-16 to select the required signal processing:

Jumper open -> if the internal switching potential is connected to the output X3.

Jumper closed: observe the switching potential at input X2 (positive logic/negative logic)

The soldered jumpers SJ 3-14 are used to select the signal polarity:

Jumper open -> potential-free (if input signals from X2 are connected through)

Jumper connected to -H -> internal switching potential, common cathode

Jumper connected to +H -> internal switching potential, common anode

By following the instructions described under "3. Programming", the keypad can be configured as required.

2.3. Setting of acoustic signals

With the following key combinations you can listen to the different acoustic signals. Once called, all signals are put out 3 times.

3* = Signal_1 = key operation

4* = Signal_2 = enter

5* = Signal_3 = valid entry

6* = Signal_4 = invalid entry

The following signal sequences occur when:

2 x Signal_1 = interruption (effected by # after entering a number)

Signal_3 → Signal_2 → Signal_3 = RESET (effected by # before entry)

2.4. Keyboard commands:

* = Enter

1* = lighting on

2* = lighting off

3* = output alarm_1

4* = output alarm_2

5* = output alarm_3

6* = output alarm_4

after entry = delete entry

before entry = exit the programming mode



3. Programming

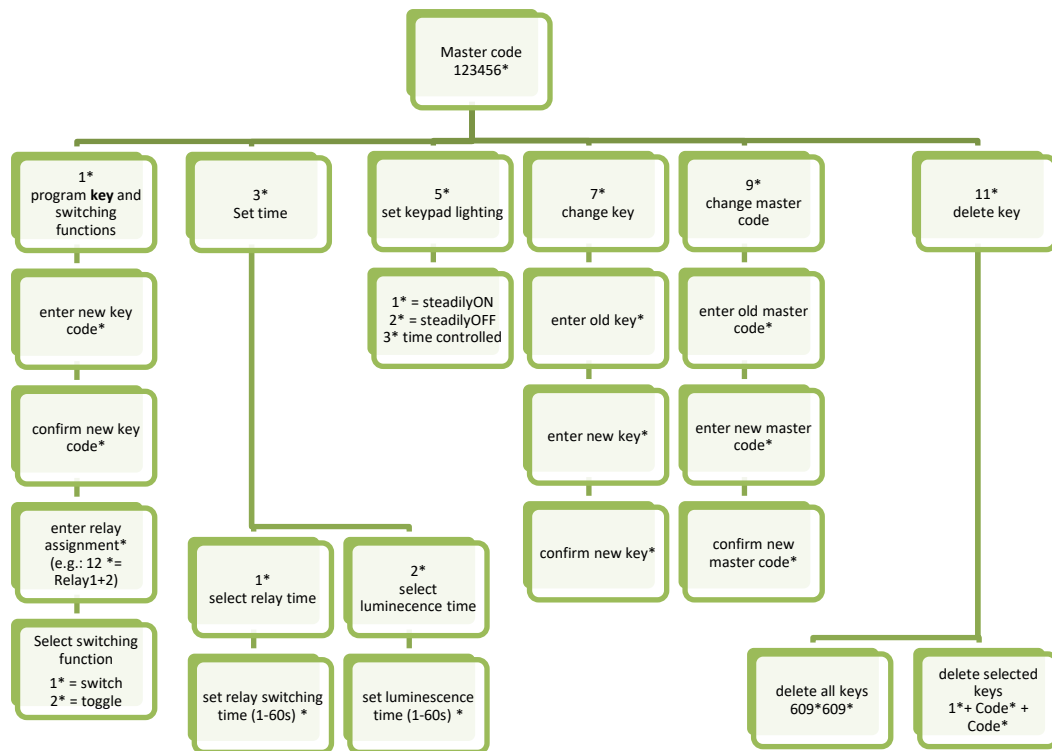
3.1. General

The code keypad is programmed via the keypad. Signal tones (see 2.3) help to track the programming activities.

3.2. Programme structure

Six menus are available for programming. Entering the master-code opens the programming level. In the subsequent step, entering the combination of numbers corresponding to a specific menu opens the menu. All entries must be completed with * (Enter) or can be cancelled with #.

- Every key operation is acknowledged with signal_1
- Enter (*) is acknowledged with signal_2
- A valid entry is acknowledged with signal_3
- An invalid entry is indicated with signal_4. Subsequently, the programming mode is quit.
- After having reached the end of a programming path, the programming mode is quit.



Note:

Entering the new key code at 1* deletes the respective standard code (e.g. 1111, 2222).

3.3. Factory setting:

Master Code = 123456

Keypad lighting = ON

Keypad luminescence time =10s

Relay delay = 3s

Our passwords = none

Code assignment: 1111=Relay 1, 2222=Relay 2, 3333=Relay 3,, 8888=Relay 8

3.4. Troubleshooting / Reset to factory settings:

There is the possibility to reset the complete settings to the factory settings using a special code. Please call our hotline in this case.

Hotline: +49 (0)8076 / 9187-222