

## Micro-controller controlled electronic keypad lock CodeLock 10b

**1, 2, 20 or 40 different user codes.**



With its reliable operation, this digital keypad lock is ideally suited for actuating electronic access systems (e.g. house doors and a garage doors). The right code, consisting of 4 to 8(16) digits in the correct sequence, must be entered to actuate switching. These 1, 2, 20 or 40 codes can be freely programmed by the user, i.e. entered via the keypad. The keypad is blocked for 60 seconds for three incorrect entries. A buzzer is behind the keypad. The respective codes are retained even in the event of a power failure.

### Function:

If the code is entered in the correct sequence, the relay switches on for 2 seconds and then switches off again. The time 2 seconds can be reprogrammed via the keypad. Several keypads can be connected in parallel to one code lock. Split system for higher safety.

### Specifications:

Operating voltage 5 and 12 V DC;  
Consumption: current 4 mA and power 0,09 W in stand by;  
Over 100 billion code combinations; Relay switching contacts:  
Single pole changeover 2 A / 24 V DC, 1 A / 125 V AC.  
Contacts for Electric striker 12 V DC or AC.

### Dimensions:

Keypad ( 86 x 115 x 15 ) mm,  
Housing ( 90 x 130 x 60 ) mm.

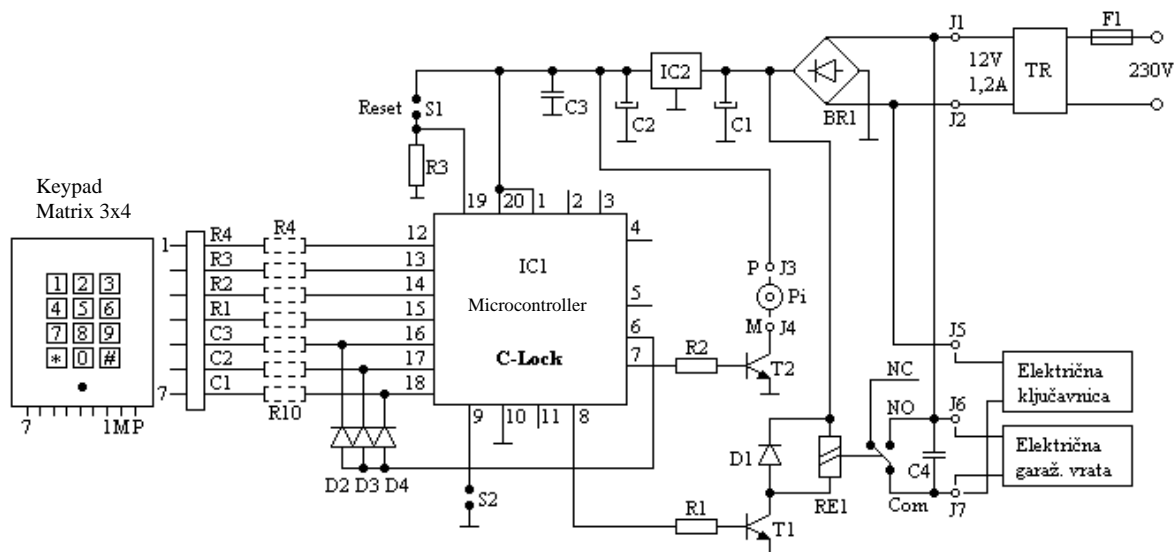
### Price:

60 EUR ( DIY version )  
12 EUR ( micro-controller )  
4 EUR ( PCB )

### In short:

1. OPENING ( For the first time ): **1 2 3 4 #**  
The relay is being activated for 1 second.
2. WRITING YOUR CODE ( For the first time ): \* 1 1 2 3 4 # **5 5 0 6 6 0 #**  
For opening the door press: **5 5 0 6 6 0 #**  
The relay is being activated for 2 seconds.
3. CHANGING THE CODE: \* UserNo OldCode # NewCode #  
Example: \* 1 5 5 0 6 6 0 # **6 6 0 8 8 0 #**  
Two short beeps indicate that new user code is written.  
For opening the door press: **6 6 0 8 8 0 #**  
The relay is being activated for 2 seconds.

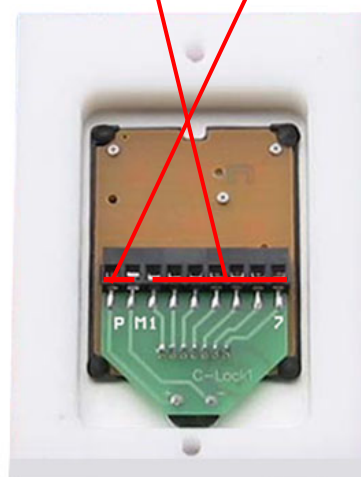
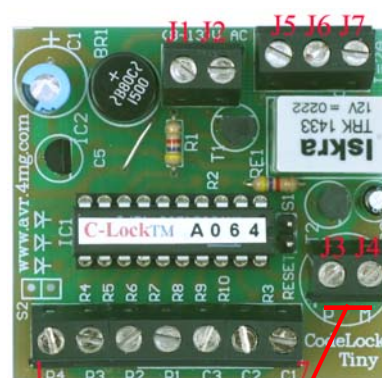
An electric outline



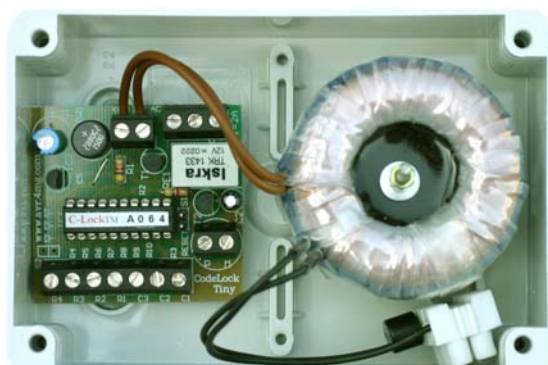
A list of used elements

Pie.	Typ	Value	Reference
2	resistor	4,7 kΩ	R1, R2
1	resistor	10 kΩ SMD 1206	R3
7	resistor	330 Ω SMD 1206	R4 – R10; ESD-option
1	el.capacitor	100 uF / 35 V	C1
1	el.capacitor	10 uF / 35 V	C2
2	ML capacitor	100 nF SMD 1206	C3, C4
2	transistor NPN	BC 547 C	T1, T2
4	diode	1N 4148 SMD 1206	D1, D2, D3, D4
1	greatz	B80C1000	BR1
1	micro controller	C-Lock	IC1
1	IC socket	20 PIN	IC1
1	IC 2	78L05	IC2
1	relay	12 V DC	RE1
1	transformer toroidal	230 V / 12V / 10VA	TR
1	beeper	SEP 2240	Pi
1	fuse	T 250mA	F1
4	pcb terminal block 2c	RM 5,08 mm	J1, J2, J3, J4, 1, 2, 3, 4
5	pcb terminal block 3c	RM 5,08 mm	J5, J6, J7, 5, 6, 7, P, M, 1-7
2	pcb terminal spikes	Raster 5,08 mm	S1
1	keypad, matrix 3x4	(86 x 115 x 15) mm	with ALU and PVC frame
1	housing	(120 x 90 x 60) mm	
1	PCB CodeLockTiny	(50 x 47) mm	<a href="http://www.avr.4mg.com">www.avr.4mg.com</a>
1	electric striker	NUOVA-FEB, KVF, effeff or sim.	electric striker or electric garage door

A Picture of CodeLock

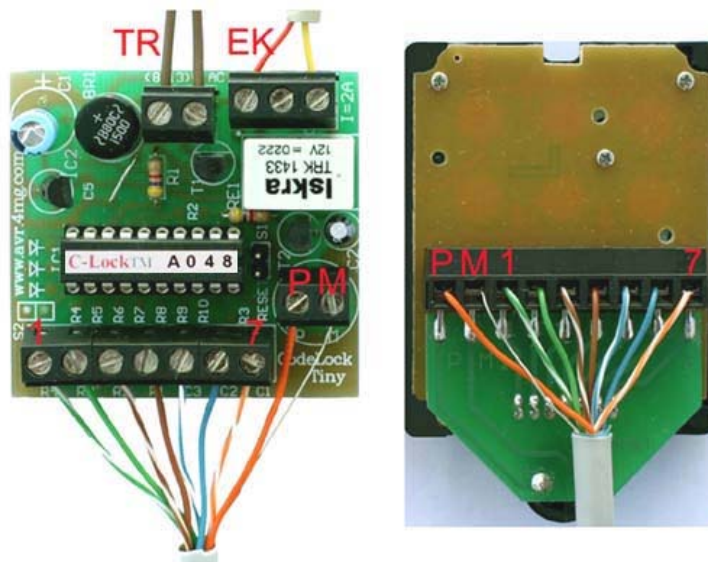
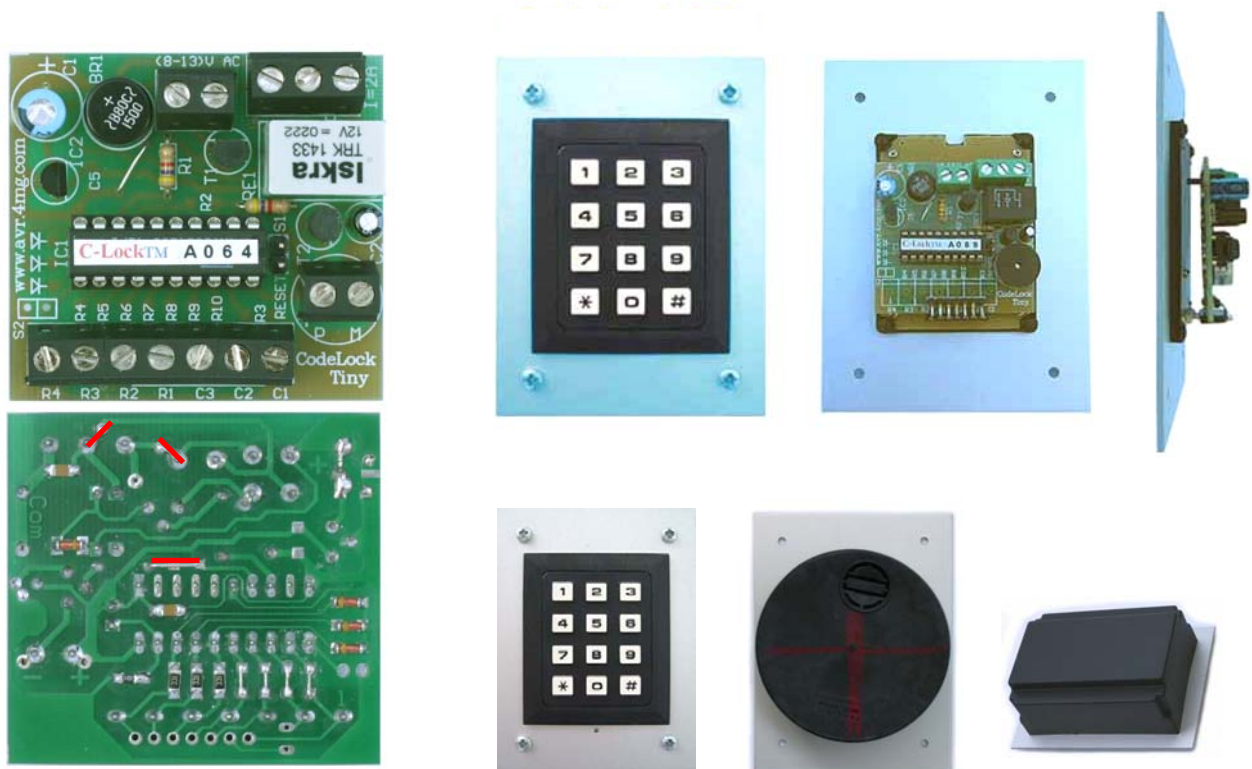


Keypad, back side.



An assembly outline. Housing measures are (120 x 90 x 60) mm.

For any other information, microcontroller, PCB and help you can contact me via e-mail or visit [www.avr.4mg.com](http://www.avr.4mg.com).



FTP cable 4 x 2 with ground wire.