



## Installation and operating instructions

### MAD 1 – coin machine for door opening

#### BASIC TECHNICAL SPECIFICATIONS

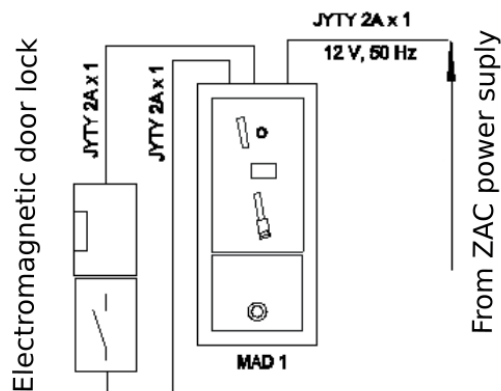
Coins accepted:	1, 2, 5, 10, 20, 50 CZK, tokens ZT 2 0.1, 0.2, 0.5, 1, 2 EUR
Minimum credit	1 CZK or 0.1 €
Maximum credit:	500 CZK or 25 €
Output closing period:	1 ÷ 255 s
Supply voltage:	12V, 50Hz
Coin machine input power:	2 VA, or 10 VA when accepting a coin, or 15 VA when opening the door
Voltage input load:	depending on the used power source, max. 3 A.
Recommended power supply device:	ZAC 1/20 (max. 1 x MAD 1) ZAC 1/50 (max. 2 x MAD 1)
Ambient temperature:	-20 ÷ 70°C
Weblink:	<a href="#">MAD1</a>

#### Coin machine operation

- The products may be used only for the purposes they are intended to.
- The product intended use follows from its name or from its description in the quote or the purchase order.
- In case of any doubts of using, maintenance or mounting procedures, please contact the manufacturer.
- Any other use must be consulted with the manufacturer.
- Coin machine MAD 1 is designed for paid door unlocking (unlatching) or for control of a device conditioning admission by payment of a preset credit (such as turnstile). The machine accepts both crowns and euros. Payment can be realized in any of the currencies (the machine sums up individual coins) - when the preset value is achieved in one currency the output is closed. The coins of different currencies cannot be combined.
- Operation mode switch may be used for setting two different functions - switching may only be performed with the power off.
  1. **No door blocking** - This setting is used if the machine controls a common entry to the sanitary facility and the door is open whenever the required amount is inserted.
    - Switch 1 (above the programming button) in OFF position.
    - After connection to the supply voltage the control will flash green and red and then it lights green. If the control flashes red and green permanently, then switch 2 is in the on position and the door is open. After inserting coins in the amount of the preset credit the relay connects to start measuring the preset time (with the switch 2 in OFF position), or the lock is under voltage until the door opens (with the switch 2 in ON position) - the control lights orange for this period.
  2. **Door blocking** - This setting is used if the coin machine controls the entry to the toilet; when the toilet is occupied the entry must be blocked.
    - Switch 1 (above the programming button) in ON position, switch 2 in any position.
    - After connection to the supply voltage the control will flash green and red and then it lights green if the door is closed - the door contact is closed. If the door is open - the door contact is off and the control flashes red and green until the door is closed. When you insert coins in the amount of the preset credit the relay connects and both colours illuminate the control together, i.e. the control is illuminated in orange. When the door is open the output is switched off and the control continues to be illuminated in



orange. If the door does not open within 15 seconds from the coin insertion then the machine returns to the default state and the inserted credit is lost. When the door is closed the red control lights. The coin machine is blocked and does not accept coins. Now the door must be closed for at least 30 seconds. If the door opens within this period then the opening will be ignored. If the door opens between 30 s and 15 minutes from the door closing after the coin insertion the green and red controls flash in turns. After the door is closed the green control will be illuminated and the machine is ready to accept another coins. If the door is closed permanently in the period from 30 s to 15 minutes then after a period of 15 minutes the red control goes off and the green control goes on; the door is opened. The coin pass through the machine will be indicated by a red flash of the control. When the red control lights the coin machine is blocked.

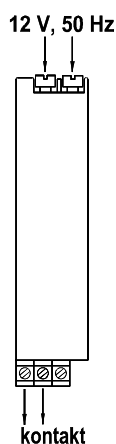


Door switch is connected only if the door locking is required

## Building preparation for instalation

1. Prepared power cable for power supply from the ZAC source, outlet of the automat with an electric lock and connection of the door sensor with the automat. A cable with a cross-section of individual cores from 0.5 to 1 mm<sup>2</sup> can be used for the connection. For easier handling of electronics, it is advisable to use stranded wires.
2. A niche for building in the coin machine, size 110 x 290 x 110 mm
3. The connection between the coin-operated machine, the door sensor and the electric lock is made with a suitable four-core cable. Leave the free cable ends in the coin machine box min. 250 mm
4. Walled-in box for the coin machine at the level of tiles or max. 20 mm below this level. The inlet opening of the box must be at the top.
5. The box is covered with assembly metal plate to prevent penetration of impurities from finishing works and tiling completion.

## Installation



1. Dismantle the cover metal plate of MAD box.
2. Unlock the door, remove it, unscrew the two cross head screws in the frame crossbar, shift the coin box including the load-bearing metal plate to the end stop on the crossbar and take the set off.
3. Attach the frame to the box by means of the supplied screws; use the countersunk screws for the top member.
4. Wire the connection cables between the door lock and the coin machine, and between the power supply and the coin machine according to the wiring diagram. If a different switch is used instead of the supplied switch that is a part of the lock, e.g. inductive sensor, its supply voltage (positive pole) must be connected to the terminal 3.
5. Use the coin collection switches to set the coin values to be accepted. Switches 1 to 6 in group 1 are used to set up the crown coins, switch 7 sets the value of accepted tokens (where used). Switches in group 2 are used to set up the euro coins.
6. Switches 1 and 2 select the operation mode - see the description on the page 1 of the manual.
7. If a coin counter is required a PM 3 unit can be used. In the adjustment mode the counter displays preset values. In the operation mode the inserted amounts are displayed both for crowns and euros. There are two registers - one can be reset to zero, the other one is permanent.

## SETTINGS OF ACCEPTED COINS

- Accepted coins are set by switching switches according to the table below. The coin switches to be received **must be in the down position**.



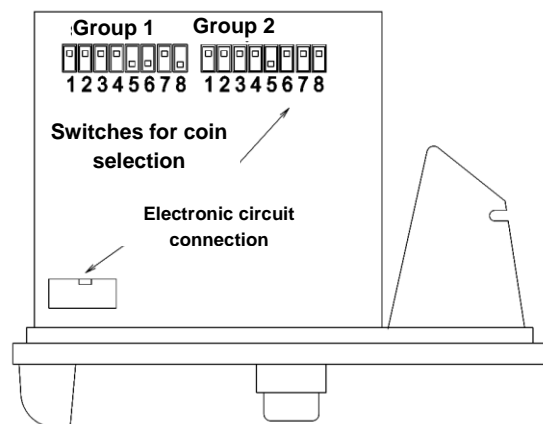
- Note: The position "On" on the coin means - **blocking the coin**.

Group 1 - crown coins (blocking)								Group 2 - euro coins (blocking)							
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
1 CZK	2 CZK	5 CZK	10 CZK	20 CZK	50 CZK	token	token - crowns	0.05 € **	0.1 €	0.2 €	0.5 €	1.0 €	2.0 €	token	token - euros
on	on	on	on	on	on	20 CZK	on	on	on	on	on	on	on	0.5 €	on
off	off	off	off	off	off	10 CZK	off	off	off	off	off	off	off	1.0 €	off

\*\* 0.05 € coins must be excluded, the machine counts only coins with nominal values from 0.1 €.

### Key

- The machine will accept 20 CZK coins if switch 5 / group 1 is OFF. The machine will accept € 1 coins if switch 5 / group 2 is OFF. In addition the switch no. 7 may be moved to the lower position to enable accepting tokens. In this setting, the machine will accept 20 CZK coins, 1 € coins, and tokens to which the value of 10 CZK has been assigned. Coins/tokens that have not been selected by means of the switches will not be accepted.
- If the coin machine is not accepting coins the cause is likely due to impurities on the sensors at the coin path. After taking out the front panel with the coin box the white button on the front side of the coin box needs to be depressed. The door on the coin box side will partly open. Open the door fully, i.e. perpendicularly to the box wall. You can clean the area behind the door and the inner door surface with a cloth which is slightly moist but not wet.
- Never use any aggressive solvent (acetone, toluene)!**
- Be sure to disconnect the machine from the power supply prior to cleaning the coin box.



### Setting the coin machine

- In 20 minutes from the power on press the "program" button to call up the setting mode - the control will start flashing green. If the credit setting needs to be changed fill the coin box with coins whose value corresponds to the required credit amount. The credit setting mode can be finished by another pressing of the button or by elapsing of the time of 10 seconds from the last accepted coin. Now the control flashes red. It is possible to set the relay connection time (lock unlocking period) for the version without door contact. Next pressing of the button causes the relay switching on and the control lights red while the button is pressed. The relay connection period will be saved in memory. If you do not wish to change the credit then do not insert any coins while the control flashes green. Similarly if you do not want to change the relay connection time do not push the button while the control flashes red. The setting mode will end after 10 seconds.

\*\*\* If it is necessary to have a DC voltage at the output, it is possible to supply 12V DC electronics. In this case, the door lock will not audibly signal operation - there will be only a barely audible click.

Annex 1: Electronic connection

