

#### **ELECTRONIC COIN SELECTOR**

# **AL55 STANDARD** (Self-programming)

**Data sheet** 

Rev. 1.2 IT

The AL55 coin selector is available in the following versions:

V = rejected coin sorted from bottom rear slot, accepted coin sorted from bottom front slot

I = rejected coin sorted from bottom front slot, accepted coin sorted from bottom rear slot

**K** = rejected coin sorted from slot low front end, dropping slot on top

S = rejected coin sorted from slot low front end, dropping slot at upper front end

#### **Technical specs**

#### **Mechanical features**

31/2" standard **Format** Size 88 x 102 x 52 mm

Weight 200 g

#### **Electrical features**

Supply voltage min. 8 V DC Supply voltage max. 26 V DC

Power consumption:

Acceptance 350 mA(30 ms)/100 mA

Measuring ≤25 mA Stand by ≤20 mA Standard enegy save ≤2,5 mA Self- wake up ≤3,5 mA

Output type Open collector Darlington

> Saturation output voltage ≤1 V Output voltage max. 50 V Output current max. 250 mA Input trigger voltage min. 3 V 50 V Input voltage max Input impedance ≈55 kΩ

#### Coin acceptance

16 Coin channels number Coin diametre min. 16 mm Coin diametre max. 32 mm Coin thickness 1 to 3,4 mm

## Timing data

Power-up recovery time ≤200 ms Wake-up recovery time ≤50 ms Pulse or time out tolerance ± 2%

### Ambient conditions

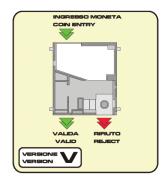
Working ambient temperature 0°C to 60°C Storage temperature -30°C to 70°C

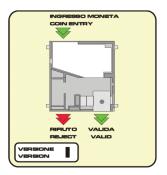
Humidity up to 75% (non condensing) for standard up to 95% for tropicalized version

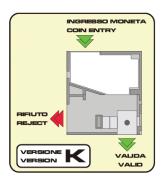
#### **EMC** performance

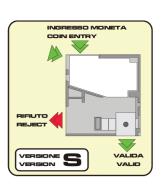
This product is compliant with EN55014-1 and EN55014-2 test specification

- > 8-bit top-performing microcontroller with 36 KB Flash-memory, highly immune to magnetic interference and to environmental conditions.
- > Two magnetic sensors and one optic detector combine to guarantee the most accurate capacity of discrimination. Data-digitizer interface designed to cope at best with bi-metal and magnetized coins. The system sharpens selectivity and security, and makes the programming process easy and faster.
- > One wire-shearer and one wire-tearer in version V provide mechanical shielding against fishing-fraud. Coin-Guard anti-cheat system, based on the synergy of suitably positioned optic sensors.











#### **Connections**

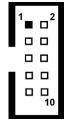
The selectors connects to other peripherals and to the main board by the following connectors:

- **X1. Power supply and standard interface.** Connector X1 is an IDC 10-p socket, whose pin-out is shown in grid aside. It consists of:
- 2 power supply pins (pin 1 common/ground & pin 2 positive), 6 "open collector" outputs (pin 3,4,7,8,9 & 10)
  1 entry pin (pin 6, normally used to inhibit acceptance of

coins)

- 1 double function pin (*pin 5*), either the "open collector" output normally dedicated to the accu multi-pulse, or additional input (i.e. for credit request).

Active state is LOW in all outputs (pins 2,3,7,8,9,10, and 5)
Active state is HIGH in input 1 (pin 6)



nr.	Description
1	Gnd
2	8-26 Vdc
3	Out 5 / sorter coil B
4	Out 6 / sorter coil A
5	Out 7 (totalizer) / In 2
6	In 1 (inhibit)
7	Out 1
8	Out 2
9	Out 3
10	Out 4 / sorter coil C

Upon request, the acceptor can be prepared for reverse supply polarity, so as to emulate spanish type coin acceptors.

**X2. Not present**: the AL55 coin selector cannot drive displays.

**X3. CCTALK.** The X3 socket (4-pin) is for serial **ccTalk**® communication with the main board. The protocol is preset for "slave mode" operation, and is described in AL55 technical manual, Chapt 6. This socket can be used on standard selectors and modifiable ccTalk selectors to change the programmed configuration by PC and Alberici free software.



nr.	Descrizione	
1	Data	
2	Gnd	
3	NC	
4	12 Vdc	

#### PROGRAMMATION OF NEW COINS

The coin selector can acknowledge 16 different coin pieces; each value will be programmed in one of the 16 channels available

It is possible to add new coins in the free channels, or replace them into the already programmed ones; in the latter case, the existin data get cancelled.

The programmation of new coins can be carried out in any of the two following ways:

- By software (see AL55 STD PROGRAMMATION BY PC SOFTWARE at page 3); in this case, 16 new coins can be programmed, and the value of each coin can be changed.
- Manually (see AL55 STD AUTO-PROGRAMMING INSTRUCTION at page 3); in this case, up to 6 coins can be programmed by the Dip-Switch row located on the acceptor rear side.

### **INHIBITION OF PROGRAMMED COINS**

TO INHIBIT 50  $\in$ c, 1  $\in$  and/or 2  $\in$  COINS, MOVE THE CORRESPONDING DIP-SWITCH TO OFF END (see grid aside). THEN SWITCH OFF AND ON AGAIN.

TO FIND THE OUTPUT THAT CONTAINS THE COIN TO BE DISABLED, PLEASE CHECK THE *OUT* COLUMN ON THE SELECTOR LABEL GRID.

SEE BESIDE FOR RELATION BETWEEN OUTPUTS AND DIP-SWITCHES

dip-switch nr. in row SW1	Output number			
1	1			
2	2			
3	3			
4	4			
5	5			
6	6			

**PLEASE TAKE CARE!** The coin selector must be installed 90°-95° with respect to level plane. Because of the built-in advanced security system, it is essential that the whole coin path gets not hindered. Alberici is not responsible for any malfunctioning due to lack of compliance with such recommendations.



# AL55 STD PROGRAMMATION BY PC SOFTWARE

THIS IS DONE THROUGH THE GETTO-600 PROGRAMMING KIT AND THE AL66 WINPROG SOFTWARE.

THE SOFTWARE ITSELF AND ITS MANUAL, CONTAINING INSTRUCTIONS FOR KIT CONNECTIONS AND PROGRAMMING PROCEDURES, ARE BOTH FREELY AVAILABLE FOR DOWNLOAD ON OUR WEB SITE www.alberici.net.

### **AL55 STD AUTO-PROGRAMMING INSTRUCTIONS**

### A) TO CARRY OUT THE PROGRAMMATION:

- 1. Turn power supply off.
- 2. Move all the dip-switches in row SW1 to OFF.
- 3. Turn power supply on.
- 4. **Row SW1-** choose the channel / oiutput where the coin must be programmed, and set the corresponding dip-switches (see pattern below: 'Switches in Row SW1'). For instance, channel 4 demands for DS1 in position ON, all the others in position OFF.

Switches in Row SW1										
CHANNEL NUMBER	DS1	DS2	DS3	DS4	DS5	DS6				
Channel 1	ON	OFF	OFF	OFF	OFF	OFF				
Channel 2	OFF	ON	OFF	OFF	OFF	OFF				
Channel 3	OFF	OFF	ON	OFF	OFF	OFF				
Channel 4	OFF	OFF	OFF	ON	OFF	OFF				
Channel 5	OFF	OFF	OFF	OFF	ON	OFF				
Channel 6	OFF	OFF	OFF	OFF	OFF	ON				

- 5. Drop 15 coins one after another; after the 15th coin has been discarded, the acceptor coil will click twice (one click only will show that the programing has been aborted)
- 6. Move all the dip-switches in row SW1 to OFF.
- 7. Turn power supply off.
- 8. To program further coins in other channels, repeat operations from 2 to 5.
- 9. To start operation: slip to ON the dip-switches corresponding to the coins to be accepted, and turn power supply on.

**PLEASE TAKE CARE!** The value(s) taken by the newly programmed coin(s) shall be the same as the value(s) already associated with the channel where it (they) has (have) been programmed. Such values can be modified only through PC and GETTO-642 (or GETTO-333G) programming kit, making use of the free Alberici AL66 WinProg software.



### B) TO TEST THE MODIFIED PROGRAMME:

- 1. Move all the switches of row SW1 to ON.
- 2. Turn power on and test operation.

### C) TO RESTORE THE ORIGINAL DEFAULT CONFIGURATION:

- 1.Turn power supply off.
- 2. Move all the dip-switches in row SW1 to OFF.
- 3. Turn power supply on.
- 4. Row SW1- Move all Dip-switches to ON.
- 5. Drop 3 coins one after another; after the 3rd coin, the acceptor coil will click twice.
- 6. The acceptor resets automatically and is ready to work.

**NOTICE:** only channels 1, 2 and 3 are preset in the original default status:

*channel* 1 = 2,00 €

channel 2 = 1,00 €

channel 3 = 0,50 €

channel 4 and following channels are available for auto-programming, according to procedure shown at point A) or using PC, GETTO-600 programming kit and free Alberici AL66 WinProg software.

### D) TO CANCEL PROGRAMMED CHANNEL(S):

- 1.Turn power supply off.
- 2. Move all the dip-switches in row SW1 to OFF.
- 3.Turn power supply on.
- 4. Row SW1- Move all Dip-switches to OFF.
- 4. Drop 3 coins one after another; after the 3rd coin, the acceptor coil will click twice.
- 5. All the channels are now empty.

**NOTICE:** once the channels have been cancelled, it is not possible to restore them as active or to re-program them by dip-switches. It is necessary to do that through PC and GETTO-600 programming kit, making use of the free Alberici AL66 WinProg software. It is still possible to restore the original default configuration.