The decoder board HCS-DEC-1-2-4/F is a 1-2-4 channels central unit which can be matched with any HCS Keeloq encoded keyfob programmed with Aurel manufacturer code.
It allows to be supplied either at 12Vdc or 24Vac selectable by means of a jumper before switching on. Embedded relays can work indistinctly in monostable or bistable mode according to the need.

How it works

Before switching on the board, set the jumper according to the wanted voltage supply:
Jumper closed = 10-12Vdc
Jumper open = 24-26Vac
This board allows to assign any Keyfob channel to the desired output.

As soon as the board is supplied, the led switches on for few instants and then switches off again, that means the board has been correctly supplied. From now on any HCS Keeloq encoded keyfob programmed with Aurel manufacturer code can be auto learnt following the standard procedure.

Auto learning procedure

In order to start the auto learning procedure, press shortly the auto learning button AT ONCE near the led. Led starts blinking quickly for 12 seconds within user must emit a valid code by pressing the button A and this button will be assigned to the relay n°1.

By pressing the auto learning button AT TWICE, Led starts blinking quickly for 2 times with 1 second stop, repeating this blink for 12 seconds within user must emit a valid code by pressing the button B of the same keyfob used, and this button will be assigned to the relay n°2.

By pressing the auto learning button THREE TIMES, Led starts blinking quickly for 3 times with 1 second stop, repeating this blink for 12 seconds within user must emit a valid code by pressing the button C of the same keyfob used, and this button will be assigned to the relay n°3.

By pressing the auto learning button FOUR TIMES, Led starts blinking quickly for 4 times with 1 second stop, repeating this blink for 12 seconds within user must emit a valid code by pressing the button D of the same keyfob used, and this button will be assigned to the relay n°4.

HCS-DEC-1-2-4/F

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Numbers of Auto learning LED quickly blinks	TX channel assigned to:
1	RELAY 1
2	RELAY 2
3	RELAY 3
4	RELAY 4

When a valid code is received, led switchs from blinking to steadily on for few instants and then switches off

Special operation:

1. In the case where we proceed to associate a button of the same transmitter to an already programmed output, auto learning LED will start to blink for 10 seconds quickly, to indicate that the operation is not permitted.

2. When we proceed to learn a second Keyfob it is necessary to repeat the above described procedure. It will automatically recognize that it is a new Keyfob not already learned in its memory

How to switch output from mono to bistable

As defaut all outputs work in monostable mode but it's possible to switch them to bistable mode executing the following procedure:

After a keyfob has been learnt, press shortly the auto learning button. Now led starts blinking quickly for 12 seconds; before this time expires, press the button again keep it pressed for 3 second and led will switch on steadily, then release it immediately and the Led switch off. Then 1 flash of auto learning Led means that output 1 is now BISTABLE.

To switch the output again on MONOSTABLE you have to repeat the above described procedure and you will see the Led emitting 2 flashes.

For others output the procedure is the same:

For output n°2 press the auto learning button up to obtain 2 led flashes, then release it, press the button again keep it pressed for 3 second and led will switch on steadily, then release it immediately. Output n°2 Then 1 flash of auto learning Led means that output 2 is now BISTABLE.

For output n°3 press the auto learning button up to obtain 3 led flashes, then release it, press the button again keep it pressed for 3 second and led will switch on steadily, then release it immediately. Output n°2 Then 1 flash of auto learning Led means that output 3 is now BISTABLE.

Le caratteristiche tecniche possono subire variazioni senza preavviso. AUR°EL S.p.A. non si assume la responsabilità di danni causati dall'uso improprio del dispositivo.

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For output n°4 press the auto learning button up to obtain 4 led flashes, then release it, press the button again keep it pressed for 3 second and led will switch on steadily, then release it immediately. Output n°2 Then 1 flash of auto learning Led means that output 4 is now BISTABLE. N.B. The described procedure can be executed only whether at least one keyfob is stored in memory. In case more keyfobs have been stored the output is activable by all keyfobs stored indistinctly and it's valid for all.

Erasing memory

In order to erase all the keyfobs stored in memory press shortly the auto learning button until it starts blinking. Now press it again and hold it down for 8 seconds until the led switches off. After 3 seconds you are pressing the button, the Led switch on and it turns off again after 8 seconds to indicate you that can release the pushbutton. Then release it and verify that led blinks 5 times to indicate the memory has been erased.

N.B. By erasing the memory all setting of bistable channels are reset, and no any keyfobs could be used with.

Technical characteristics

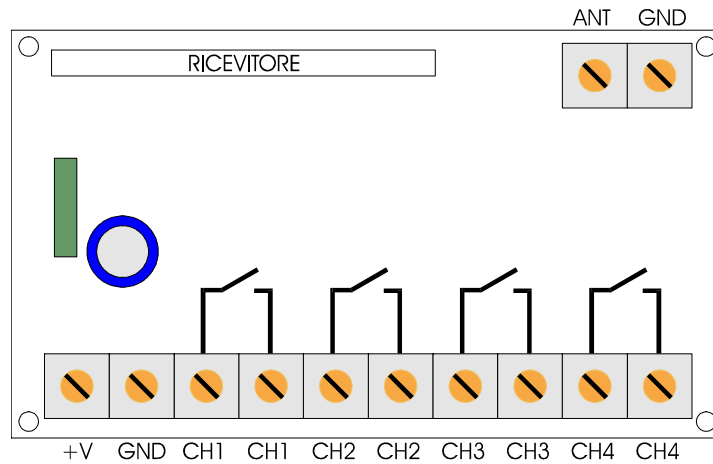|	min	typ	max	unit
DC voltage supply	10	12	15	V
AC voltage supply	23	24	26	V
Current cons. STBY		8mA dc--20mA ac		ma
Max consumption**		52mA dc--66mA ac		ma
Max current on relay		0,25A/ 220Volt AC 2 A /30 Volt DC		
Antenna impedence		50Ohm		
Frequency		433,92MHz*		
Receiver sensitivity		-100dBm*		
Modulation		AM*		

* see receiver AC-RX2 characteristics.
** in case of all 4 relays simultaneously activated.

Assembling

In case the board should be enclosed in a box, it's recommended to keep the module out of metallic shields.

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PCB mechanical size

Length	65mm
Width	45mm
Max height	18mm
3mm holes distances	X = 59mm, Y = 49mm