



The decoder board HCS-DEC-4 is a 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 is an extremely poured version, in fact it's possible to assign at each switch of transmitter each output. With this decoding system it can be matched with TX-H12-HCS, using 3 different four channels devices, we obtain 12 different independent outputs. The monostable and bistable mode are useful in application like gate openers, wireless security and antitheft systems and where other rolling code channels are required. The code transmitter will learn through auto learning mode (see the features). Compatible with AUREL transmitter : HCS-TX-1/2/3 (OVO), TX1/2/3-HCS-433 (HCS), TX-2/4/6 M-HCS, TX-12 CH. This decoding system can be used with our RX-4MHCS/F and HCS-DEC-4/F modules to realize 12 channels HCS decoding system (using 3 modules) and 12 channels HCS TX module.

Auto learning procedure

It's necessary to learn the transmission codes of the respective transmitter in RX 4MHCS module to get receiver. To do this, It's necessary to get the transmitter into the receiver field. Only HCS coding transmitters programmed with 'Aurel Standard Code' can be used with RX 4MHCS/F receiver. Another coding transmitters can't work with the receiver. Aurel is disposable to program your own manufactured code just for a high quantity production.

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

Once the decoding is realized, the auto learning led turn on for a short instants(~1sec) to show the correct working.

- Pushing once the auto learning button, the led will blink, it switches on one second and switches off again, this for 12 seconds. During this time pushing the 'A' switch on 'X' keyfob, it will assign on one output.
- Pushing twice the auto learning button, the auto learning led blink twice quickly with a turn of time of one second, all this for 12 seconds. During this time pushing the 'B' button of 'X' keyfob it will assign on second output.
- Pushing third the auto learning button, the auto learning led blink third quickly with a turn of time of one second, all this for 12 seconds. During this time pushing the 'C' button of 'X' keyfob it will assign on third output.
- Pushing fourth the auto learning button, the auto learning led blink fourth quickly with a turn of time of one second, all this for 12 seconds. During this time pushing the 'D' button of 'X' keyfob it will assign on third output.

An another pushing of the button, the led will blink once again, it will repeat an another program cycle. If any button of the transmitter will press again, it will escape of the auto learning cycle in 12 seconds. It's possible to learn until a maximum of four buttons each single transmitter.

Num. of Blinking quickly auto learning button	Tx button assigned to:
1	Output 1
2	Output 2
3	Output 3
4	Output 4

Other features available:

1. In the event in which it is proceeded to assign a button of the same transmitter to the output already programmed, the auto learning led will blink quickly for 10 seconds, this for indicating that the operation is not correct.
2. In the event of it decided to auto learn the second transmitter, the auto learning procedure will be the same above. The decoding system will automatically recognize that a new transmitter isn't to on yet.

How to switch output from mono to bistable

The auto learning button will command the switching between monostable mode and bistable mode.

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Pushing once the auto learning button, the led will blink for 12 seconds. During this time pushing it again for three seconds or until the led is on, pulling it immediately the led will turn off, after this a blink will show the number one output is bistable. The number one output will switch in monostabile mode doing again the same procedure, after releasing the button, a two slowly blink of the auto learning led will show the change. The procedure is the same for the other three outputs: for the output number three, pushing the auto learning button until the led will blink three times consecutive, pushing again for three seconds or until the led is on, and releasing the button again a slow blink of the led will show the bistable mode. Each functional output change will remain valid for all the buttons of keyfobs associated at that channel.

Erasing memory

In order to erase the memory stored in the RX 4MHCS device, push the auto learning button and release it again, the led starts blinking. Now press it again and hold it down for 8 seconds, the led switches on after three seconds and switches off after eight seconds. Then release it and verify that led blinks 5 times to indicate the memory has been erased. After the reset, any transmitter will not recognize HRS coding system, and all the output will set in monostable mode.

Technical characteristics

	<u>min</u>	<u>typ</u>	<u>max</u>	<u>unit</u>
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 impedance		50Ohm		
Frequency		433,92MHz*		
Receiver sensitivity		-100dBm*		
Modulation		AM*		

* see receiver AC-RX2 characteristics.

** in case of all 4 relays simultaneously activated.

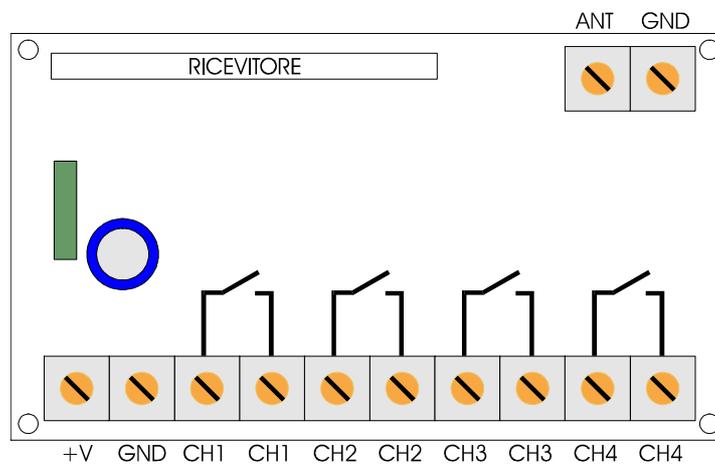
Assembling

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



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