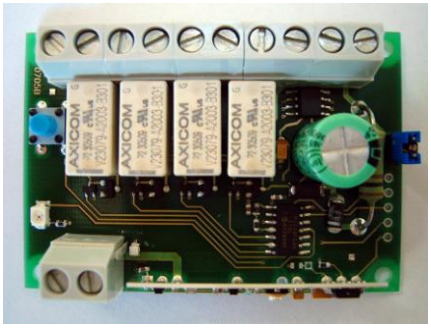

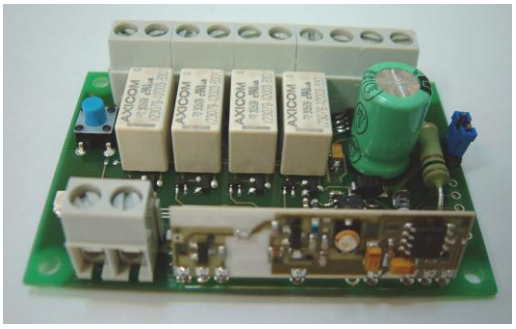

The decoder board HCS-DEC-4 is a 4 channels central unit which can be matched with any HCS Keeloq encoded keyfob programmed with Aurel manufacturer code.
It allows to be supplied either at 12Vdc or 24Vac selectable by means of a jumper before switching on.
Embedded relays can work indistinctly in monostable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

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 phase press shortly the auto learning button near the led. Led starts blinking quickly for 10 seconds within user must emit a valid code by pressing any button.
When a valid code is received, led switchs from blinking to steadily on for few instants and then switches off.

By pressing the 4 buttons now the relay monostable output will be switched.
Receiver can store up to 10 different transmitters.
Note: the auto learning of a 2,3 or 4 channels keyfob can be performed by pressing whatever button as the central unit handles the data frame to allocate each channel as described hereunder:

Only S0 on = channel 1
Only S1 on = channel 2
Only S2 on = channel 3
Only S3 on = channel 4

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 10 seconds; before this time expires, press the button again shortly and led will switch on steadily. Now within 10 seconds press the button of the channel you want to make bistable. Done it, the led blinks three times to show the operation was executed correctly.
Repeating the operation on the same channel the led would blink twice to show the return to monostable mode.

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 5 seconds until the led switches off. 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.

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		1A/ 220Volt		
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.

PCB mechanical size

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