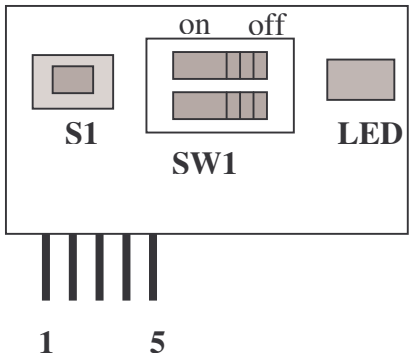
New version (featured with microswitch)

The MA4 is a 2 channels decoder working in auto-learning mode. The task of decoding the Keeloq algorithm is entrusted to the PIC12C509 microcontroller and the storing of the learned 1 or 2 buttons keyfob to the 24C08 EEPROM on board.

The MA4 decoder is able to correctly recover RF signals encoded by means of Microchip HCS 300 and HCS 301 encoders or by means of 3750/86409 encoders, settled through a dip switch combination. In order to choice the type of encoding, the user has to set up the SW1 dip switches (see figure below). If both the dip switches are OFF, the MA4 will decode RF waveforms coming from keyfobs endowed with HCS encoders. If the dip switches are both ON the chosen encoding type is the 3750/86409 one.



Pin Out
1: CH1 output
2: data-in
3: CH2 output
4: +V
5: GND

CH1 and CH2 output are both monostable and last enabled for 500 msec ca. after the RF signal has been decoded. CH1 goes low when enabled: the load (relais coil or led), therefore, has to be applied between this pin and the positive of the supply voltage. CH2 is normally low and goes high the very moment the correspondent code is detected.

Self learning procedure

The decoder can be coupled to up to 200 transmitters. In case of transmitters featured with HCS 300 or HCS 301 encoders, they have to be programmed with the same Manufacturer's code as the Aurel's MA4 one. After having chosen the type of transmitter and settled the appropriate sequence of dip switches SW1, reset the code memory pushing the S1 button (then the led will turn on). Hold the S1 button pushed until the led will turn off (i.e. for ca. 10 sec.). It's very important that the reset procedure happens after having settled the dip switches used to choice the encoding scheme. When the user has erased the code memory,

then it is possible to start the self learning procedure that couples each allowed keyfob to the decoder. Push the S1 button: the led will turn on and the system will be ready to learn the first transmitter. Push the button number one that will be joined to the channel one and will enable the CH1 output of the decoder, when it will be recognised. Repeat the same sequence pushing the button joined to CH1 of each transmitter that will activate the correspondent decoder output. It not necessary to learn also the transmitter's channel 2. After the self learning procedure of the last keyfob, please wait the led turn off (it uses ca. 5 sec.): the decoder is then out of the learning procedure and the system is ready to work.