

# Overview

The "**FLO**" series is a family of transmitters used to open gates, working on the 433.92 MHz band. This series consists of a 4-channel, 2-channel and a 1-channel version. By channel we mean a different code and not different frequency bands. All three models have exactly the same circuit while the number of push buttons and codes differ. They are powered with a 12V alkaline battery (included).

## **Description of the products**

### **FLO1**

The circuit consists of:

- The Q1 transistor that works like an oscillator; the signal taken from its collector passes through the C7-L2-C12-C13 filter and reaches the Loop type aerial, engraved on a printed circuit, providing a guarantee of stability as regards its characteristics and, consequently, the complete lack of calibrations. The SAW1 Resonator guarantees the exact oscillation frequency.
- The code is generated by the integrated circuit IC1 and consists of a train of 13 pulses lasting 25 ms followed by a pause of another 25 ms. A personalised code can be set with 10 dip switches. Decoder Clock operation is guaranteed by a RC.
- The Q2 transistor, used as an AM-OOK modulator (On Off Key), switches the oscillator circuit and DL1 LED on and off. A 12V alkaline battery powers the circuit. There is also a battery testing circuit that prevents the circuit from working with a flat battery.

### **FLO2**

The circuit consists of:

- The Q1 transistor that works like an oscillator; the signal taken from its collector passes through the C7-L2-C12-C13 filter and reaches the Loop type aerial, engraved on a printed circuit, providing a guarantee of stability as regards its characteristics and, consequently, the complete lack of calibrations. The SAW1 Resonator guarantees the exact oscillation frequency.
- The code is generated by the integrated circuit IC1 and consists of a train of 13 pulses lasting 25 ms followed by a pause of another 25 ms. A personalised code can be set with 10 dip switches. Decoder Clock operation is guaranteed by a RC.
- The Q2 transistor, used as an AM-OOK modulator (On Off Key), switches the oscillator circuit and DL1 LED on and off. A 12V alkaline battery powers the circuit. There is also a battery testing circuit that prevents the circuit from working with a flat battery.

### **FLO4**

The circuit consists of:

- The Q1 transistor that works like an oscillator; the signal taken from its collector passes through the C7-L2-C12-C13 filter and reaches the Loop type aerial, engraved on a printed circuit, providing a guarantee of stability as regards its characteristics and, consequently, the complete lack of calibrations. The SAW1 Resonator guarantees the exact oscillation frequency.
- The code is generated by the integrated circuit IC1 and consists of a train of 13 pulses lasting 25 ms followed by a pause of another 25 ms. A personalised code can be set with 10 dip switches. Decoder Clock operation is guaranteed by a RC.
- The Q2 transistor, used as an AM-OOK modulator (On Off Key), switches the oscillator circuit and DL1 LED on and off. A 12V alkaline battery powers the circuit. There is also a battery testing circuit that prevents the circuit from working with a flat battery.

***Technical specifications******TRANSMITTERS***

Central frequency: 433.92 MHz  $\pm$  100KHz

Modulation: AM-OOK wide band

Code: A train of 13 pulses lasting 25ms followed by a pause of another 25ms. The first bit lasts 0.66ms followed by a pause of 0.66ms; the duration of the remaining 12 depends on how the code and channel are set.

When these bits are "1" they will last 1.32ms preceded by a pause of 0.66ms.

When these bits are "0" they will last 0.66ms preceded by a pause of 1.32ms.

Working temperature: from -20°C to +55°C