

Overview

Transmitters allow you to manage 1 group or 6 group of automation, with or without control of climate sensor. Every group is formed by three different channel. By channel we mean a different code and not different frequency bands.

All models have exactly the same circuit while the number of push buttons.

They are powered by two 1.5V-alkaline battery AAA (included).

Description of the product

All the transmitters

The circuit consists of:

- The Q3 transistor that works like an oscillator; the signal taken from its collector passes through the C17-L3-C21 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 74 pulses lasting 114 ms followed by a pause of another 18 ms; as the code is the "Rolling Code" type, it changes each time the push button on the remote control is pressed.

Technical specifications

Transmitters

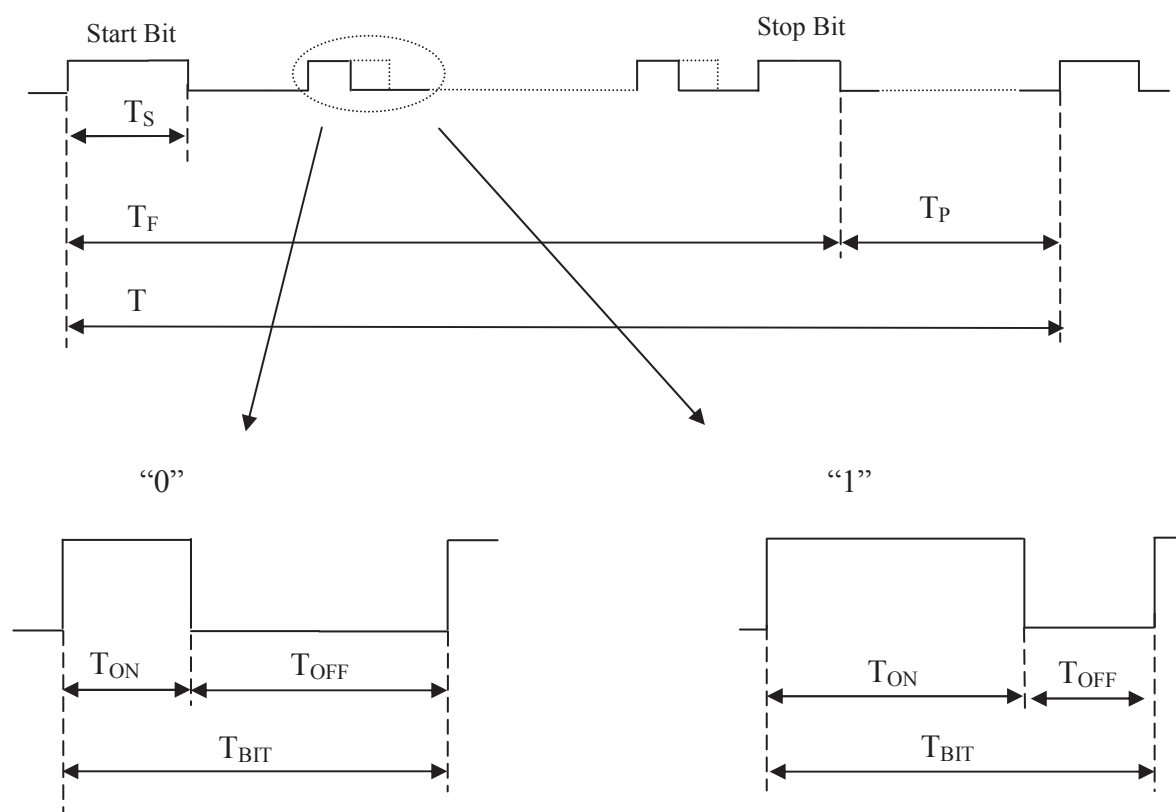
Working temperature: from -10°C to +55°C

Center frequency: 433.92 MHz $\pm$ 100KHz

Modulation: AM-OOK wide band

Duty Cycle in 100 ms calculation (worst case):

Code: A train of 74 pulses lasting 114 ms followed by a pause of 18ms.



TOTAL PERIOD	:	$T = 132 \text{ ms}$
FRAME PERIOD	:	$T_F = 114 \text{ ms}$
PAUSE	:	$T_P = 18\text{ms}$
START BIT	:	$T_S = 1.5 \text{ ms}$
SINGLE BIT	:	$T_{BIT} = 1.5\text{ms}$
IMPULSE TYPE "0"	:	$T_{ON} = 0.5 \text{ ms}, T_{OFF} = 1.0 \text{ ms}$
IMPULSE TYPE "1"	:	$T_{ON} = 1.0 \text{ ms}, T_{OFF} = 0.5 \text{ ms}$
STOP BIT	:	$T_{FS} = 1.5 \text{ ms}$

Then the 100 ms worst case (WC) is

$$DC = \text{ON TIME}_{WC} / 100 \text{ ms} = ((1.5 + 1 * 65) / 100) = 0.665$$

$$20 \text{ LOG}(DC) = -3.5 \text{ dB} \quad (\text{correction factor})$$