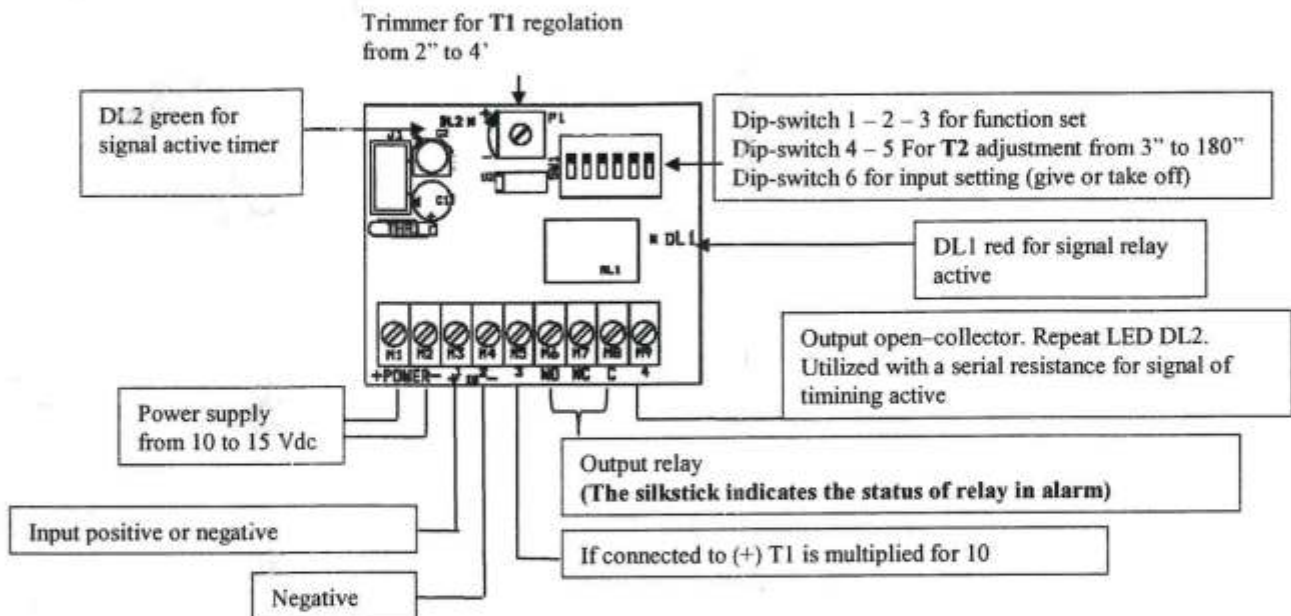# MTT BOARD

Multifunction board for all timings

Features:

The MTT is a multifunction board that allows the timing and / or delaying of an input positive or negative. It has a LED DL1 for signal relay active and DL2 to report active timer.

Connection:

Set the dip-switch then connect the power supply 13,8 Vdc to the terminal + POWER – and the input signal to the terminal 1. Use the terminal NO NC C on the board for connecting the device.

Trimmer for **T1** regolation from 2" to 4'

DL2 green for signal active timer

Dip-switch 1 – 2 – 3 for function set
Dip-switch 4 – 5 For **T2** adjustment from 3" to 180"
Dip-switch 6 for input setting (give or take off)

DL1 red for signal relay active

Output open–collector. Repeat LED DL2. Utilized with a serial resistance for signal of timing active

Power supply from 10 to 15 Vdc

Output relay
(The silkstick indicates the status of relay in alarm)

Input positive or negative

Negative

If connected to (+) T1 is multiplied for 10

Change timing:

- The trimmer P1 to adjust the time **T1** from 2" (standard) to 257" (~4,2 minutes) rotate clockwise.
- The dip-switch 4 and 5 used to adjust **T2** from 3" (standard) to 180".
- Input 3, if connected to the positive (+) makes **T1** adjustable from 20" to 2570" (~42 minutes).

| DIP-Switch 6	Input type	Graphic symbols
ON (standard)	Positive or negative to give	1 = 0V or 12V 0 = floating
OFF	Positive or negative to taking off	1 = floating 0 = 0V or 12V

Function:

Function A: (dip1 ON – dip2 ON – dip3 ON)
When the input signal changes from state 0 to 1 and vice versa, the output relay is activated for the time T1.
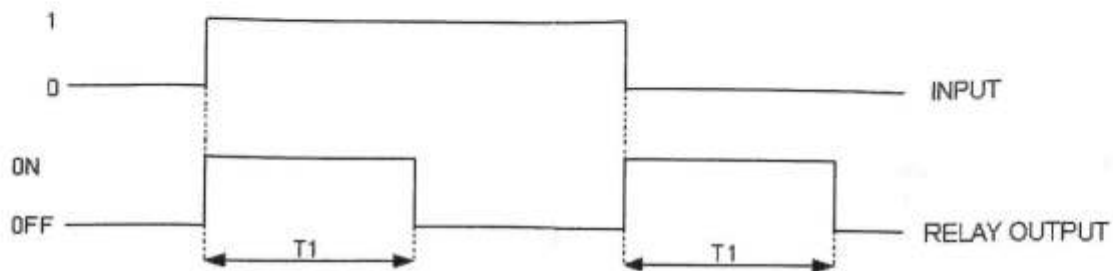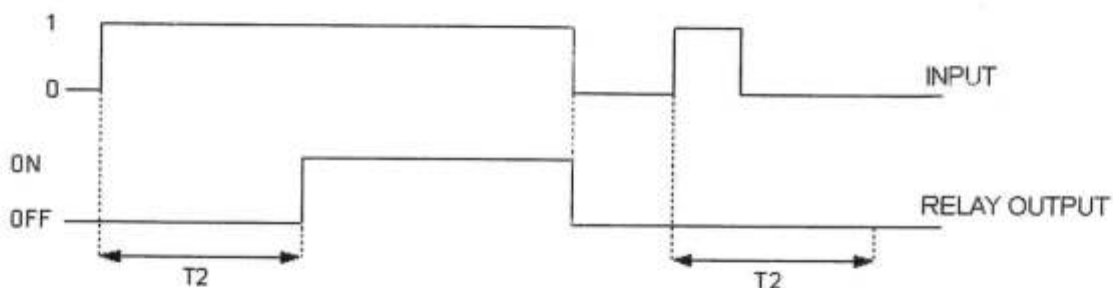

Function B: monostable output with retrigger (dip1 OFF – dip2 ON – dip3 ON)
When the input signal changes from state 0 to 1 the output relay is activated for the time T1. The time T1 re-start every positive input (retrigger).
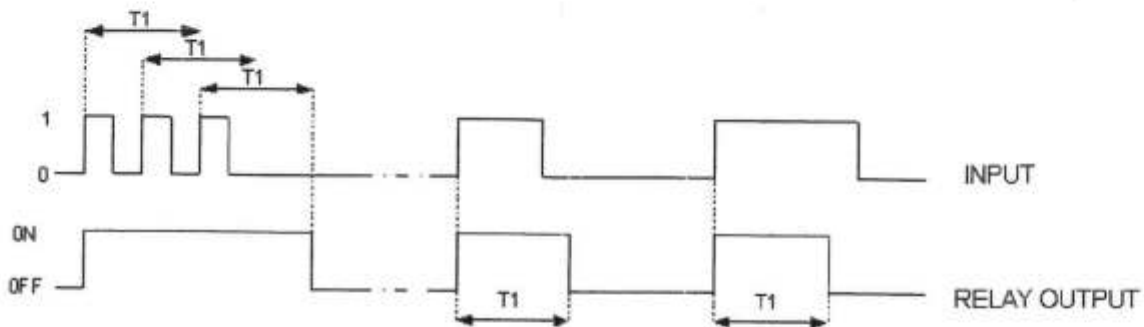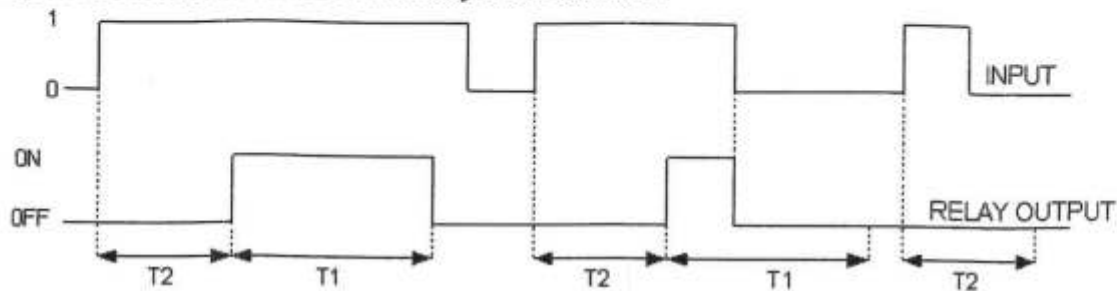

Function C: (dip1 ON – dip2 OFF – dip3 ON)
When the input signal changes from state 0 to 1, after a delay period T2, the relay is activated and remains active until the return to quit of the input signal. If the input signal in shorter than T2 the relay is not activated.
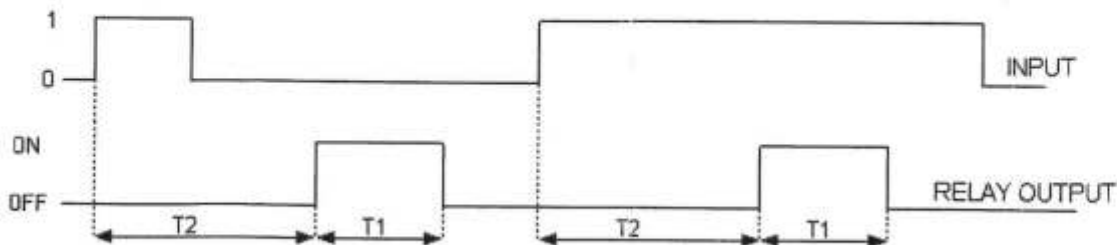
Function D: *(dip1 OFF – dip2 OFF – dip3 ON)*

When the input signal changes from state 0 to state 1, after a delay period T2 the relay is activated and remains active for the time T1. If the input ends before the end of T1 the relay returns to quiet. If the input ends before the end of T2 the relay is not activated.
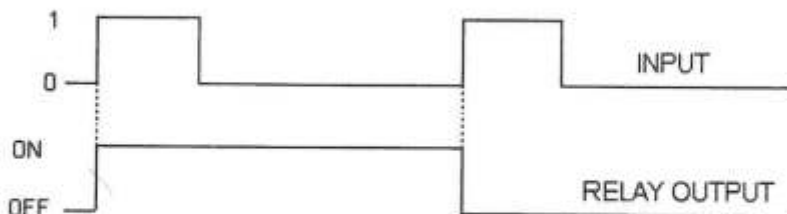

Function E: *(dip1 ON – dip2 ON – dip3 OFF)*

When the input signal changes from state 0 to state 1 after a delayed perio T2, the relay is activated and remains active for the time T1.
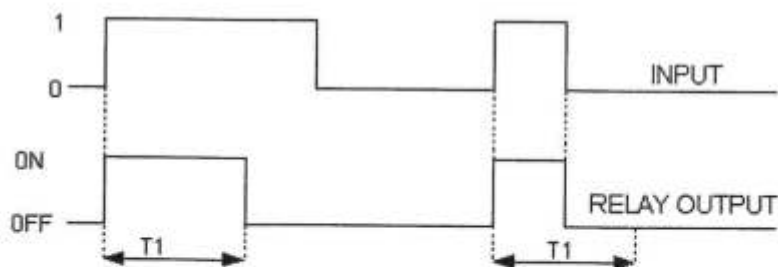

Function F: *STEP-STEP (dip1 OFF – dip2 ON – dip3 OFF)*

When the input signal changes from state 0 to state 1 the output relay is activated and deactivated sequentially.
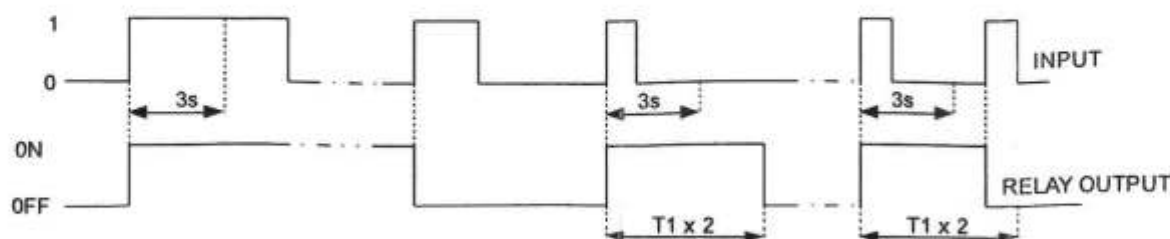

Function G: *(dip1 ON – dip2 OFF – dip3 OFF)*

When the input signal changes from state 0 to state 1 the output relay is activated for the time T1. If the input ends before the end of T1 the relay returns to quiet.

Function H: (dip1 OFF – dip2 OFF – dip3 OFF) standard

When the input signal changes from state 0 to state 1 the output relay is activated and deactivated sequentially. If the input goes on quiet earlier than three seconds the relay is deactivated after the time T1 x 2 or on the following state change from 0 to 1 if it is less than T1 x 2.

Dip-Switch setting

DIP Switch	FUNCTION							
	A	B	C	D	E	F	G	H
DIP 1	ON	OFF	ON	OFF	ON	OFF	ON	OFF (standard)
DIP 2	ON	ON	OFF	OFF	ON	ON	OFF	OFF (standard)
DIP 3	ON	ON	ON	ON	OFF	OFF	OFF	OFF (standard)

DIP Switch	T2 (sec)			
	3	5	60	180
DIP 4	ON	OFF	ON	OFF
DIP 5	ON	ON	OFF	OFF

O.C. Output function:

The open-collector output repeats the LED DL2 during T2 or during the 3 seconds of function H. After those function it is fixed active following the relay state. Is useful, when the timing is longer, to see when a command is being processed. We recommend a series resistance of 1kOhm (not supplied) for voltages up to 15V.

Specifications:

Power supply	from 10Vdc to 15 Vdc
Current consumption	7mA (standby), 20mA (relay active)
Input	from 0Vdc to 15Vdc
Output	1 relay output max 1A
	1 open-collector output see O.C. Output function
Dimension	D18 mm x L45 mm x H55 mm
Weight	38g

CE
MADE IN ITALY

WASTING:
This product must be wasted in appropriate wheelie-bin for electric and electronic materials.
Do not put in weelie-bin for other kind of waste.