T3M

Multi-Range Instantaneous

Description

Microprocessor based Multi-function timer with four selectable modes of operation and time range from 0.3sec - 60hrs. Extensive applications due to combinations of functions and time ranges. Due to the advanced design of the unit a high accuracy can be achieved. All commonly used functions are incorporated in the unit. Any adjustment on the front potentiometer after the supply is applied is not acknowledged. This prevents unwanted changes of the time range. The instantaneous contact in the unit can be used in a hold-in circuit or where an output is needed immediately when the supply is applied. For a unit without an instantaneous contact the T2M can be used.

FEATURES

- Microprocessor based design
- Time range 0.3sec - 60hrs
- Rear DIP switch selection of 4 function
- Rear DIP switch selection of 8 timer ranges
- Potentiometer adjustable time setting
- Repeatable deviation: < 0.2%
- Power supply ON and Relay ON LEDs
- Delay output 10A SPDT
- Instantaneous output 10A SPDT

Time Specifications

	A	B
Time Ranges	Pins 5 & 6 open	Pins 5 & 6 closed
	0.3 - 6sec	0.3 - 6min
	3 - 60 sec	3 - 60 min
	0.3 - 6min	0.3 - 6 hrs
	3 - 60 min	3 - 6 hrs
Range Accuracy	≤ 0.5%	
Scale Accuracy	± 5%	
Repeat Accuracy	± 0.2%	
Time Variation	≤ 0.05% / V	
within rated power supply and ambient temperature	≤ 0.2% / ^{O}C	
Reset Time	500 ms	
Pulse Duration	500 ms (pins 6 & 7)	

Output Specifications

Output Specifications	2 x SPDT
Rated Isolation Voltage	6000 VAC (contact / electric)
	1000 VAC (contact / contact)
Nominal Rate in AC1 (Ag-Ni)	1500 VA
Rated Current	10A
Rated Voltage	250V
Mechanical Life	$10x10^{6}$ cycles
Electrical Life	$110x10^{3}$ cycles (at max load)
Operation Frequency	≤ 1800 cycles/h

Supply Specifications

Power Supply AC Type (Galvanic)	110, 230, 400V
	525V ± 10%
	50 / 60 Hz ± 5Hz
Isolation	4kV
Consumption	± 3VA
	± 6VA 525 V
Power Supply DC Types (Non-galvanic)	12,24,48 V ± 10%
Isolation	None
Consumption	± 100 mA

General Specifications

Power ON Delay	≤ 300 ms
Power OFF Delay	≤ 200 ms
Indication for	
Power Supply ON	LED red
Output ON	LED green
Environment	
Degree Of Protection	IP 20
Operating Temperature	-10 to + 50^{O}C
Storage Temperature	-50 to + 85^{O}C
Weight	200g

T3M

Multi-Range Instantaneous

Mode of Operations

Function 1: Delay on operate

When applying supply the relay is de-energized and timing starts. The relay only energizes after the set time is elapsed and will remain so until the supply is removed.

Example
Delaying energization of a load on applying power.

Function 2: Interval

When applying the supply the relay is energized and remains so until the set time is elapsed. The relay will then de-energize until the supply is removed and reapplied.

Example
Energization of a load for a set time period.

Function 3: Pulse Controlled Interval

Permanent supply is applied to the unit. When closing contacts 6 & 7 the relay energises for the set time period. The relay then de-energizes until contacts 6 & 7 are closed again.

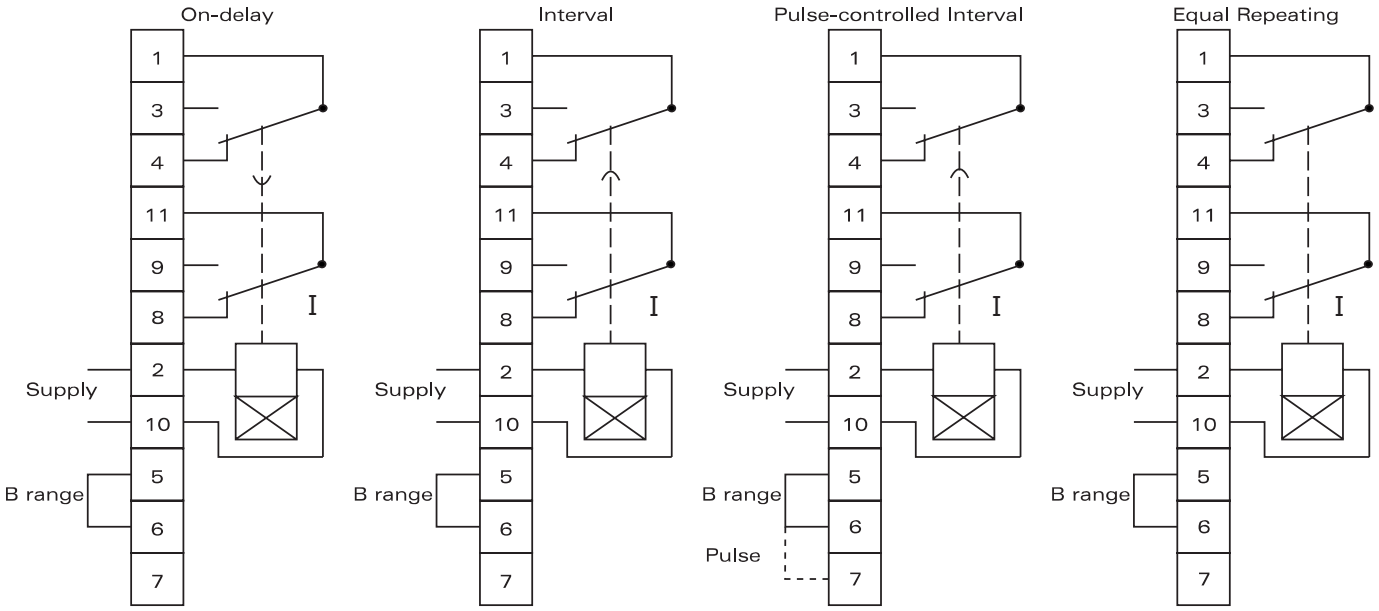
Example
Delaying release after limit switch operation.

Function 4: Equal Repeating

When applying supply the set OFF time period is activated where after an equal ON time begins. This cycle is repeated until the supply is removed.

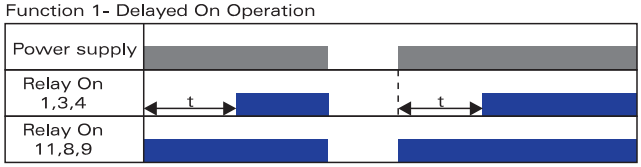
Example
Switching a load on and off repetitively in equal intervals.

Wiring Diagram

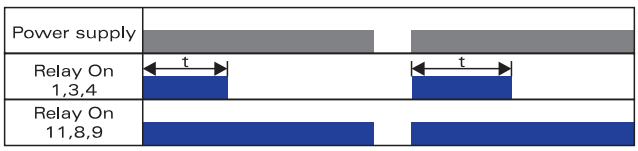


Operations Diagram

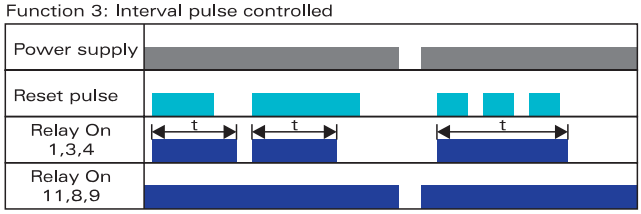
Function 1- Delayed On Operation



Function 2: Interval



Function 3: Interval pulse controlled



Function 4 - Equal repeating