

# Timers Multifunction Timer Type VIMT51CW24



## FEATURES

- Selectable time range 0.1 s to 100 h
- 7 knob selectable functions:
  - Op - delay on operate
  - In - interval
  - Io - interval on trigger open
  - Id - double interval
  - Dr - delay on release
  - R - symmetrical recycler ON first
  - Rb - symmetrical recycler OFF first
- Automatic or manual start
- Repeatability:  $\leq 0.2\%$
- Output: 5 A SPDT relay
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 17.5 mm DIN-rail housing
- Combined AC and DC power supply
- LED indication for relay status and power supply ON

## Description & Mode of operation:

Multi-voltage timer with 7 knob-selectable functions and 7 knob-selectable time ranges within 0.1s and 100h. For mounting on DIN-rail. Housing 17.5 mm wide suitable both for back and front panel mounting. Wide power supply range: 12 to 240 VAC/DC.

### Function Op - Delay on operate

The time period begins as soon as the trigger contact is closed.

At the end of the set delay time the relay operates and does not release until the trigger contact is closed again or the power supply is disconnected. If the trigger contact is closed before the end of the delay time, the device resets and a new time period starts.

### Function In - Interval

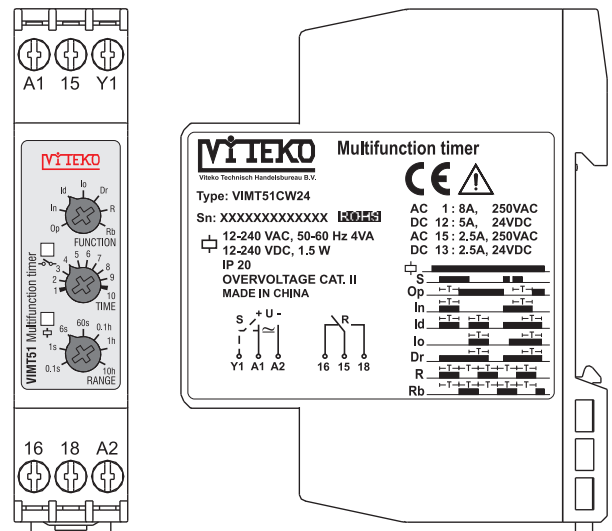
The relay operates and the time period begins as soon as the trigger contact is closed. The relay releases at the end of this period or when the power supply is disconnected. The relay operates again when the trigger contact is closed again. If the trigger contact is closed before the end of the delay time, the device resets and a new time period starts.

### Function Io - Interval on trigger open

The relay operates and the time period begins as soon as the trigger contact is opened. At the end of the set delay or when the power supply is disconnected the relay releases. The relay operates again when the trigger contact is opened again. If the trigger contact is opened before the end of the delay time the relay keeps ON and a new time period begins.

### Function Id - Double interval

The relay operates and the time period begins as soon as the trigger contact is closed. The relay releases at the end of this period or when the power supply is disconnected. When the trigger contact is opened the relay operates again for the set delay period. If the trigger contact is opened before the end of the first time period the second one begins; if the trigger contact is closed before the end of the second time period the device resets and the first time period begins again.



### Function Dr - Delay on release

The relay operates as soon as the trigger contact is closed. The time period begins when the trigger contact is opened. The relay releases at the end of the set delay time or when the power supply is disconnected. The relay operates again when the input contact is closed again. If it is opened before the end of the delay time the relay keeps ON, a new time period begins as soon as the contact is closed again.

### Function R - Symmetrical recycler, ON-time period first

The relay operates and the time period begins as soon as the input contact is closed. After the set delay period the relay releases for the same time period. This sequence continues with equal ON- and OFF-time periods until the power supply is interrupted.

### Function Rb - Symmetrical recycler, OFF-time period first

The time period begins as soon as the input contact is closed. The relay is OFF during the set delay period, after this time it operates for the same time period. This sequence continues with equal OFF- and ON-time periods until the power supply is interrupted.

### Additional Load

It's possible to wire an additional load (i.e. a relay) between pins Y1 and A2, driven by the trigger contact without damaging the device.

### Yellow LED working mode

Timing: Slow blinking

Relay ON: See operation diagrams

Incorrect knobs position: Fast blinking

## Specifications

### Timing:

<b>Time ranges</b>	
Knob selectable	0.1 to 1 s 1 to 10 s 6 to 60 s 60 to 600 s 0.1 to 1 h 1 to 10 h 10 to 100 h
<b>Setting accuracy</b>	≤ 5%
<b>Repeatability</b>	≤ 0.2%
<b>Time variation</b>	
Within rated power supply	≤ 0.05%/V
Within ambient temperature	≤ 0.2%/°C
<b>Reset</b>	
Manual reset of time and/or relay	Close the trigger contact between pins A1 and Y1
Pulse duration	≥ 100 ms
Power supply interruption	≥ 200 ms
<b>Automatic start</b>	Connect pins A1 and Y1

### General:

<b>Power ON delay</b>	≤ 100 ms
<b>Indication for</b>	
Power supply ON	LED, green
Output relays ON	LED, yellow (flashing when timing)
<b>Environment</b>	
Degree of protection	(EN 60529) IP 20
Pollution degree	2 (IEC 60664)
Operating temperature	-20° to +60°C, R.H. < 95%
Storage temperature	-30° to +80°C, R.H. < 95%
<b>Housing</b>	
Dimensions	17.5 x 81 x 67.2 mm
Material	PA66 Note: on the Y1 terminal is mounted a flexible unipolar red cable (N07V-K, 1 mm <sup>2</sup> , 40 mm in length, unsheathed sides)
<b>Weight</b>	75 g
<b>Screw terminals</b>	
Tightening torque	Max. 0.5 Nm according to IEC EN 60947
<b>CE Marking</b>	Yes
<b>EMC</b>	
Immunity Emissions	Electromagnetic Compatibility According to EN 61000-6-2 According to EN 61000-6-3+A1
<b>Low Voltage RoHS</b>	According to EN 61812-1 According to EN 50581

### Output:

<b>Output</b>	1xSPDT or relay
<b>Rated insulation voltage</b>	250 VAC (rms)
<b>Contact Ratings (AgSnO<sub>2</sub>)</b>	
Resistive loads	μ AC 1 5 A @ 250 VAC DC 12 5 A @ 24 VDC
Small inductive loads	AC 15 2.5 A @ 250 VAC DC 13 2.5 A @ 24 VDC
<b>Mechanical life</b>	≥ 30 x 10 <sup>6</sup> operations
<b>Electrical life</b>	≥ 10 <sup>5</sup> operations (at 5 A, 250 V, cos φ = 1)
<b>Operating frequency</b>	< 7200 operations/h
<b>Dielectric strength</b>	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand voltage	2.5 kV (1.2/50 μs)

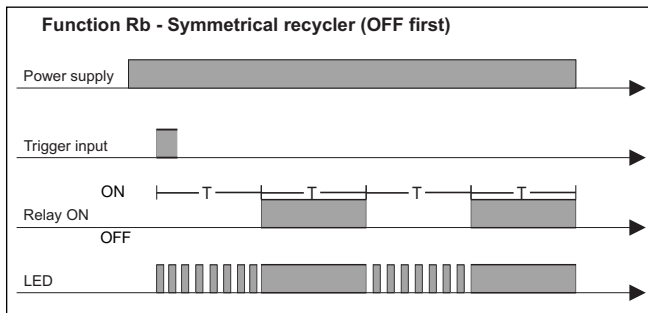
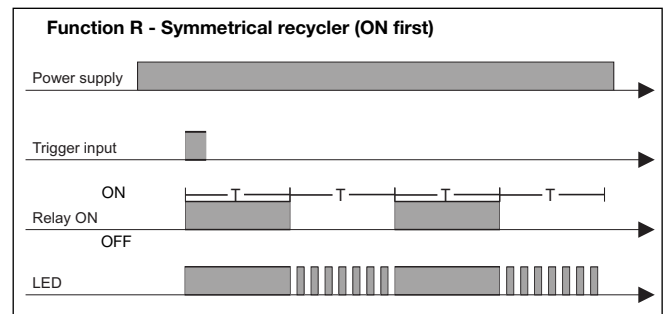
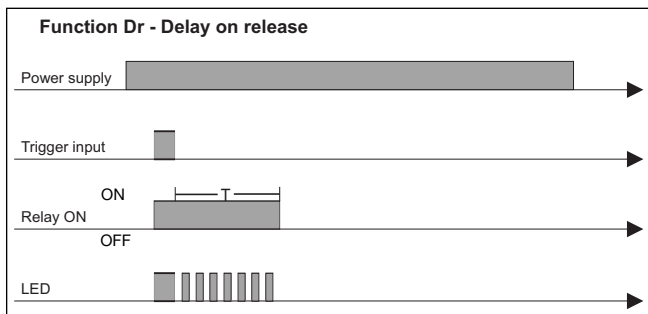
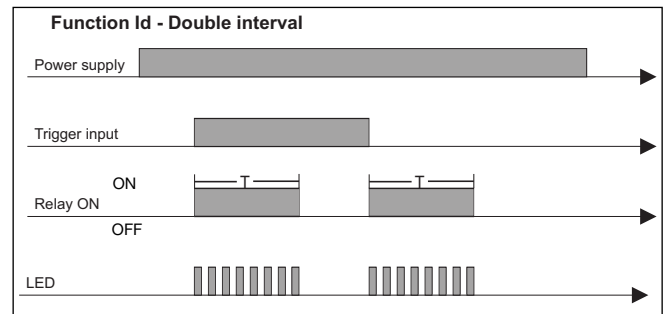
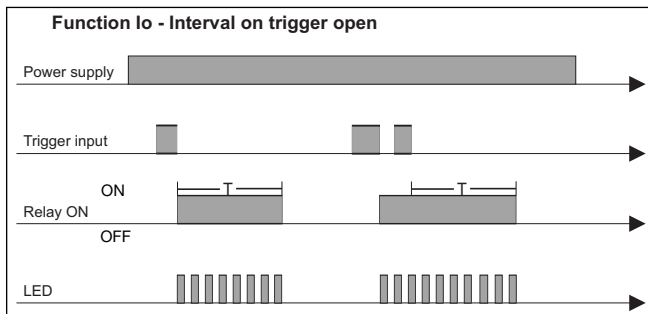
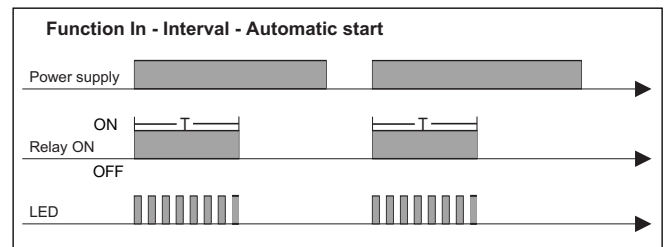
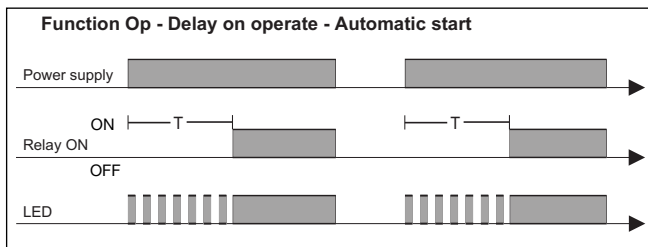
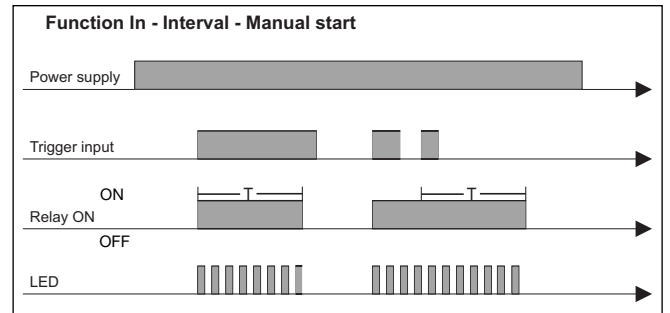
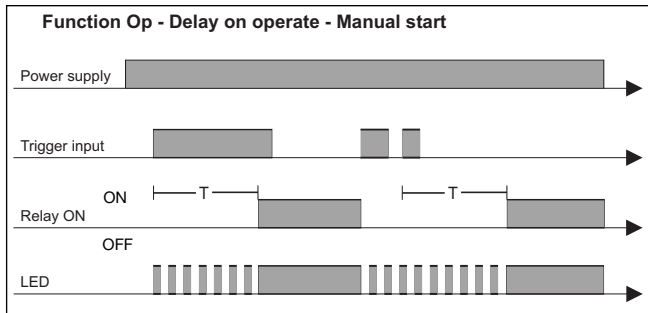
### Supply:

<b>Power supply</b>	Overvoltage cat. II (IEC 60664, IEC 60038) Rated operational voltage through terminals A1, A2: 12 to 240 VDC + 10% -15% and 12 to 240 VAC + 10% -15%, 45 to 65 Hz
<b>Voltage interruption</b>	≤ 10 ms
<b>Rated operational power</b>	
AC supply:	4 VA
DC supply:	1.5 W

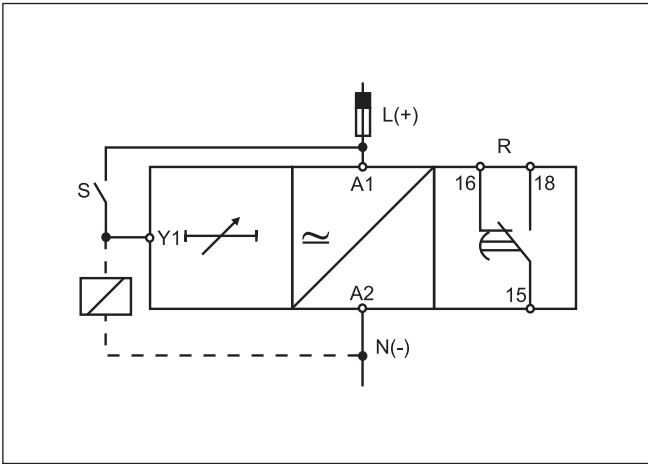
### Time Setting:

<b>Upper knob:</b>	<b>Centre knob:</b>
Setting of function:	Time setting on relative scale: 1 to 10 with respect to the chosen range.
Op - delay on operate	
In - interval	
Io - interval on trigger open	
Id - double interval	
Dr - delay on release	
R - symmetrical recycler (ON first)	<b>Lower knob:</b>
Rb - symmetrical recycler (OFF first)	Setting of time range

## Operating Diagrams:



**Wiring Diagram:**



**Dimensions:**

