

Time Relays



**Single Timer
TC991**

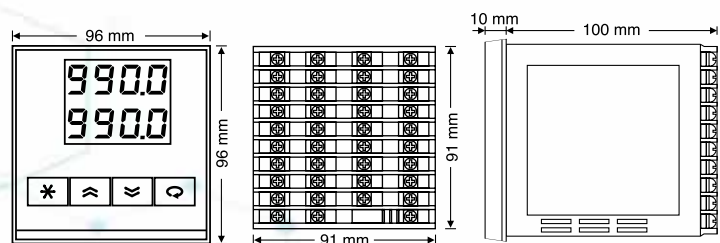


**Double Timer
TC990**

TC991 devices are designed for different timing processes needed in industrial environments. This device contains a timer that can operate in three different modes. The time unit of this timer can be selected as seconds, minutes or hours and can be set between 0.00-99.99 / 0-999 values. There are 100-240Vac / dc (Universal) and 24Vac / dc supply voltage. It complies with international EMC and Safety standards.

TC990 devices are designed for different timing processes needed in industrial environments. This device contains two separate timers that can operate in four different MODs. The time unit of each of these timers can be selected as seconds, minutes or hours and can be set between 0.00-99.99 / 0-999 values. There are 100-240Vac / dc (Universal) and 24Vac / dc supply voltage. It complies with international EMC and Safety standards.

Device Dimensions



Panel Cutting Dimensions = $92 \pm 0,5 \text{ mm} \times 92 \pm 0,5 \text{ mm}$

Operating Modes

Table-1	MOD0 ($\bar{a}.d.n = 0$)	MOD1 ($\bar{a}.d.n = 1$)	MOD2 ($\bar{a}.d.n = 2$)	MOD3 ($\bar{a}.d.n = 3$)
WARNING (DI)				
OUTPUT (DO _n)				

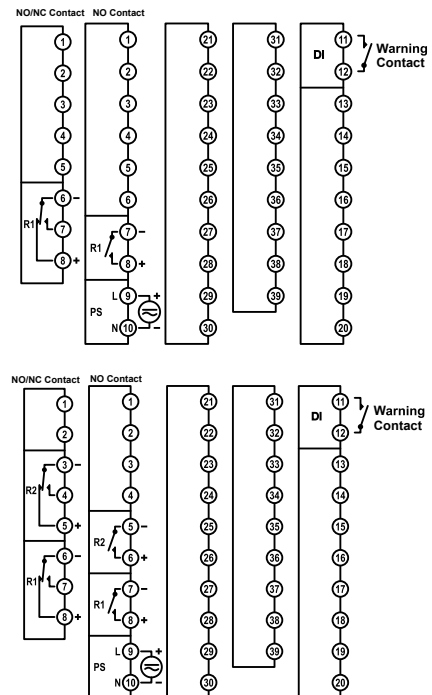
"T" in the table represents the set time and "t" means the remaining time. The region indicated by the dotted line is the region where time advances.

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Technical Specifications

Supply Voltage (PS)	100-240 Vac/dc +10%-15% 24 Vac/dc +10%-20%
Power Consumption	3W, 5VA
Relay Output (R1,R2)	Contact = 250VAC 10A NC Contact = 250Vac 3A
Contact Lifetime	No Load = 10.000.000 Switching 250V,10A Resistive Load = 1.000.000 Switching
Memory	100 Years, 100.000 Renewals
Accuracy	+/- 0,1%
Sampling Time	100 ms
Environment Temperature	Working = -10...+55°C Storage = -20...+65°C
Protection Class	Front Panel = IP54 Trunk = IP20
Dimensions	Width = 96 mm Height = 96 mm Depth = 110 mm
Panel Cutting Dimensions	91 +/- 0,5 mm x 91 +/- 0,5 mm
Weight	430 gr

Modular Structure and Connection Diagram



Product Code

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Power Supply :

- 0 = 100-240Vac (Universal)
- 1 = 24Vac/dc

R1 Output Module :

- 0 = N/A
- 1 = NO Contact
- 2 = 24V Logic Output (to drive SSR)
- 3 = NO/NC Contact

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Power Supply :

- 0 = 100-240Vac (Universal)
- 1 = 24Vac/dc

R1 Output Module :

- 0 = N/A
- 1 = NO Contact
- 2 = 24V Logic Output (to drive SSR)
- 3 = NO/NC Contact

R2 Output Module :

- 0 = N/A
- 1 = NO Contact
- 2 = 24V Logic Output (to drive SSR)
- 3 = NO/NC Contact

Note : If R1 relay is coded as 3 (NO / NC), and relay R2 is selected as contact, it should be coded as NO / NC.
If the R2 relay is coded as 3 (NO / NC), and the R1 relay is selected as a contact, it should be coded as NO / NC.