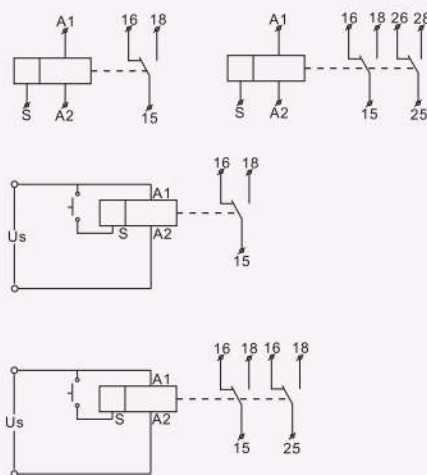


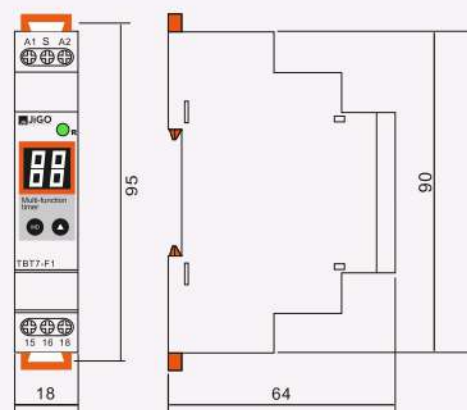
Functions Diagram

01. Power-On Delay 	Turn on the power U_s, relay starts to delay time T. Output contacts R close once the delay time T is up. If the input power U_s is removed, output contacts R return to initial state (NO). The control signal S is invalid in this mode.	11. Pulse Conversion 	Turn on the power U_s. The output contacts R change states only when the control terminal S is connected.
02. Off Delay 	Turn on the power U_s. The output contacts R close immediately and relay starts to delay time T. The output contacts R open (NO) once the delay time T is up. If the input power U_s is removed during the delay time T, output contacts R return to initial state (NO). The control signal S is invalid in this mode.	12. Cycle delay by external control (OFF start) 	Turn on the power U_s. When the control terminal S is connected, relay starts to delay time T_1. The output contacts R close for time T_2. The relay repeats working in this way until the control terminal S is disconnected.
03: Cycle Delay (start OFF) 	Turn on the power U_s, relay starts to delay time T_1. When the time T_1 is up, the output contacts R close for time T_2. The relay repeats working in this way until it loses power U_s. The control signal S is invalid in this mode.	13. Cycle delay by external control (ON start) 	Turn on the power U_s. When the control terminal S is connected, the output contacts R close immediately and relay starts to delay time T_2. When the time T_2 is up, the output contacts R open (NO) for time T_1. The relay repeats working in this way until the control terminal S is disconnected.
04: Cycle Delay (start ON) 	Turn on the power U_s. The output contacts R close immediately and relay starts to delay time T_2. When the time T_2 is up, the output contacts R open (NO) for time T_1. The relay repeats working in this way until it loses power U_s. The control signal S is invalid in this mode.	14. Pulse output by external control 	Turn on the power U_s. When the control terminal S is connected, relay starts to delay time T_1. When the time T_1 is up, the output contacts R close for time T_2. The output contacts R keep open afterwards. When the control terminal S is disconnected, the output contacts R return to initial state NO.
05. Pulse Output 	Turn on the power U_s, relay starts to delay time T_1. When the delay time T_1 is up, the output contacts R close for time T_2. The output contacts R keep open afterwards. If the input power U_s is removed, the output contacts R return to initial state (NO). The control signal S is invalid in this mode.	15. Delay start and stop by external control 	Turn on the power U_s. When control terminal S is triggered, relay starts to delay time T_1. The output contacts R close when the time is up. When the control terminal S is triggered again, relay starts to delay time T_2. When the time T_2 is up, the output contacts R open.
06. Power-On Delay by external control 	When the S control terminal is connected, turn on the power U_s, relay starts to delay for time T. The output contacts R close once the time T is up. If the S control terminal is disconnected, the output contacts R return to initial state (NO).	16. Double delay off by external control 	Turn on the power U_s. When the control terminal S is connected, the output contacts R close and relay starts to delay time T_1. The output contacts R open when the time T_1 is up. When the terminal S is disconnected, the output contacts R close and relay starts to delay time T_2.
07. Delay off (S falling edge trigger start) 	When the S control terminal is connected, turn on the power U_s, the output contacts R close. Once the terminal S is disconnected, relay starts to delay time T. When delay time T is up, the output contacts R open. If the terminal S is connected and disconnected again during the delay time T, relay resets the time and starts to delay time T.	17. Delay start by external control 	Turn on the power U_s. When the control terminal S is connected, relay starts to delay time T. The output contacts R keep close when the time T is up. When the power U_s is removed, the output contacts R open.
08. Delay Off (S rising edge trigger start) 	When the relay gets power U_s and the control terminal S is connected, output contacts R close, relay starts to delay time T. When the delay time T is up, the contacts R open. The control terminal S is ignored during the delay time T.	18. Delay Close by external control 	Turn on the power U_s. When the control terminal S is triggered, relay starts to delay time T. The output contacts R close once the delay time T is up. When the S terminal is triggered again, the output contacts R open and relay starts to delay time T. The output contacts R close once the delay time is up. When the power U_s is removed, the output contacts R open.
09. S Falling Edge Trigger Closure, Delay Off 	Turn on the power U_s. When the control terminal S is disconnected, the output contacts close and relay starts to delay time T. When the delay time T is up, the output contacts open. The control terminal S is ignored during the delay time T.	19. Stay Closed (NC) 	The output contacts R keep close until the power U_s is removed.
10. ON/OFF DELAY 	Turn on the power U_s. When the control terminal S is connected, relay starts to delay time T_1. The output contacts R close when the time is up. When the control terminal S is disconnected, relay starts to delay time T_2. The output contacts R open when the time T_2 is up.	20. Stay Open (NO) 	The output contacts R keep open no matter the relay is powered on or off.

Wiring Diagram



Dimensions(mm)



DIGITAL MULTI-FUNCTION TIME RELAY

General

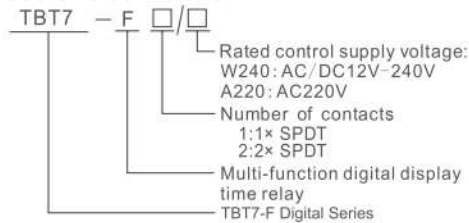
Applications

-Multi-functional time relay can be used for industrial equipment, lighting control, heating element control, motor and fan control, with 20 delay modes, with a delay range of 0.1-99 days

Function Features

- 20 delay modes controlled by power supply
- 13 delay modes controlled by signal
- ON, OFF mode
- Ultra-wide delay range, 0.1-99 days can be set.
- With AC/DC12V-240V ultra-wide working voltage
- The working status of the relay is indicated by the LED indicator
- Ultra-small volume, only 18mm wide, 35mm din rail installation

Model and connotation



TBT7-F1



TBT7-F2

Technical parameters	TBT7-F1	TBT7-F2
Function	20function modes	
Supply terminals	A1-A2	
Control supply voltage	AC/DC12-240V 50HZ	
Burden	AC0. 09-3VA/DC0. 05-1. 7W	
Voltage range	AC220V 50HZ	
Power input	ACmax.6VA/1.3W	ACmax.6VA/1.3W
Supply voltage tolerance	-15%;+10%	
Supply indication	green LED	
Time ranges	0.1s-99days	
Time setting	potentionmeter	
Time deviation	1%	
Repeat accuracy	0.2%	
Temperature coefficient	0.05%/°C,at=20°C(0.05°F= at 68°F)	
Output	1×SPDT	2×SPDT
Current rating	1x16A(AC1)	2x16A(AC1)
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	1×10 ⁷	
Electrical life(AC1)	1×10 ⁵	
Reset time	max.200ms	
Operating temperature	-20°C ~+55°C	
Storage temperature	-35°C ~+75°C	
Mounting/DIN rail	35mm din rail installation	
Protection degree	Ip20	
Operating position	any	
Overvoltage cathegory	Up to 2000 meters	
Pollution degree	2	
Max. cable (size) mm ²	1x2.5mm ² re 2x1.5mm ² 0. 4N•m	
Dimensions	95.5mmX18mmX64mm	
Weight	W240-62g,A230-60g	W240-82g,A230-81g
Standards	GB/T14048.5,IEC6094-5-1,EN61812-2	