

Forward and reverse control time relay Instruction Manual



General

□Applications

- The forward and reverse control time relay can be used to control the forward and reverse rotation of the motor.

□Function Features

- You can individually set the forward, stop, and reverse times.
- With a forced stop function, it can be pressed to stop forward or reverse rotation at any time.
- Ultra wide delay range, 0.1 seconds - 99 days can be set.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

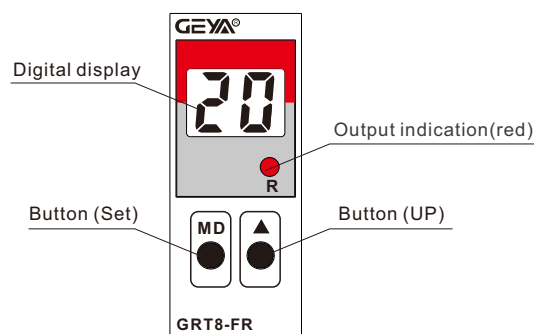
□Model and connotation



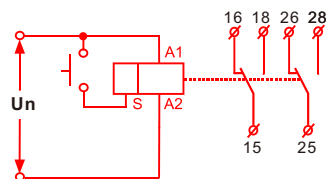
Technical parameters

GRT8-FR	
Function	Forward and reverse control time relay
Supply terminals	A1-A2
Voltage range	W240 AC/DC 12-240V(50-60Hz)
Burden	AC 0.09-3VA/DC 0.05-1.7W
Voltage range	A230 AC 230V(50-60Hz)
Power input	AC max.6VA/1.9W
Supply voltage tolerance	-15%;+10%
Time ranges	0.1s-99day,ON,OFF
Time setting	Key setting
Time deviation	≤1%
Repeat accuracy	0.2%-set value stability
Temperature coefficient	0.05%/°C,at=20°C(0.05%/°F, at=68°F)
Output	2×SPDT
Current rating	2×16A(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 to +55°C (-4°F to 131°F)
Storage temperature	-35°C to +75°C (-22°F to 158°F)
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mm ²)	solid wire max.1×2. 5or 2×1. 5/with sleeve max.1×2. 5(AWG 12)
Dimensions	90×18×64mm
Weight	2×SPDT: W240-82g,A230-81g
Standards	EN 61812-1,IEC60947-5-1

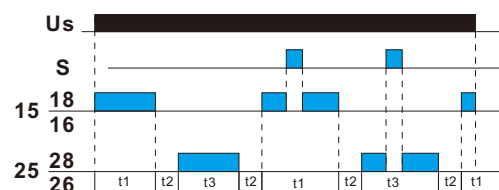
Panel Diagram



Wiring diagram



Function



t1: Forward rotation time

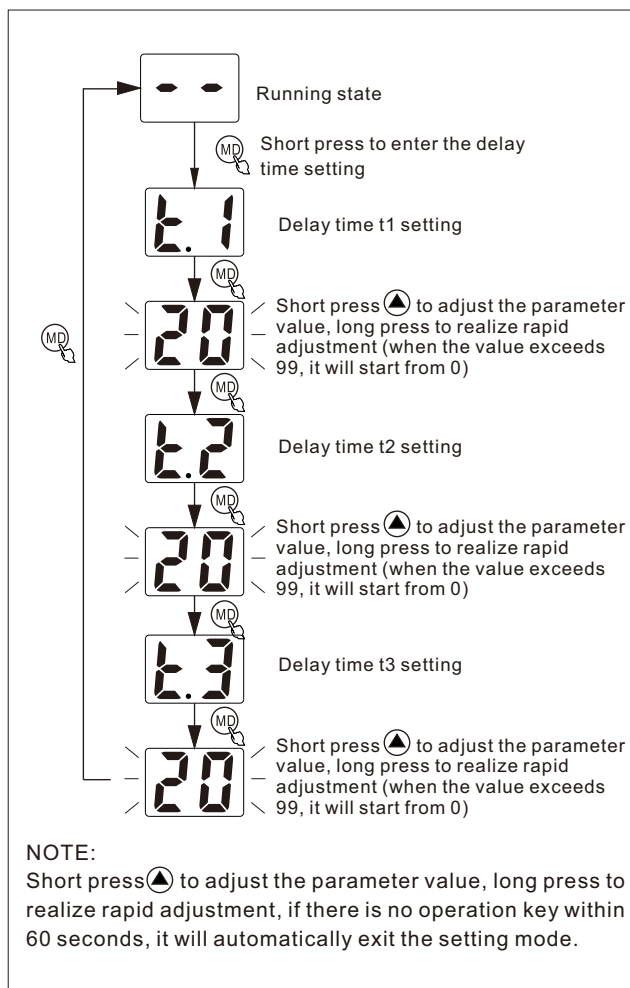
t2: Stop time

t3: Reverse rotation time

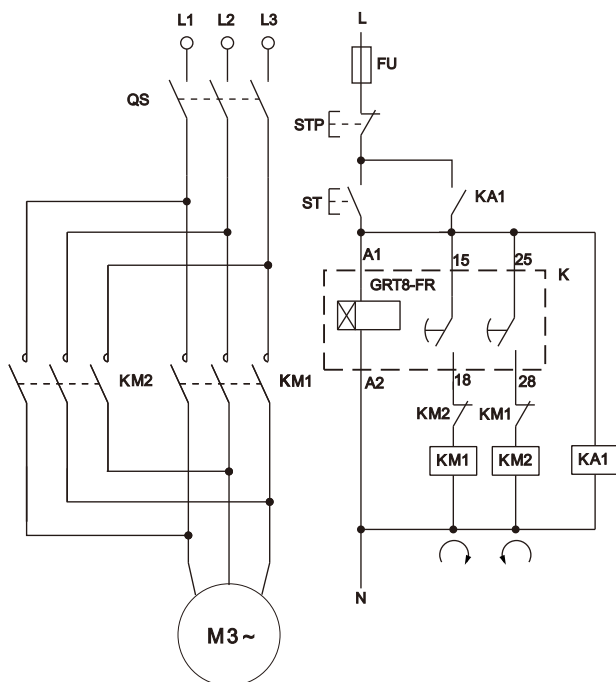
After the relay is energized, 15-18 is closed, the motor rotates forward, and the delay t1 is turned off, stopping the motor. After a further delay of t2, 25-18 closes, and the motor reverses. After a delay of t3, 25-28 opens, and the motor stops. This cycle continues. At any moment, switch on A1-S, the motor stops running, and the delay pauses

Adjustment of the product

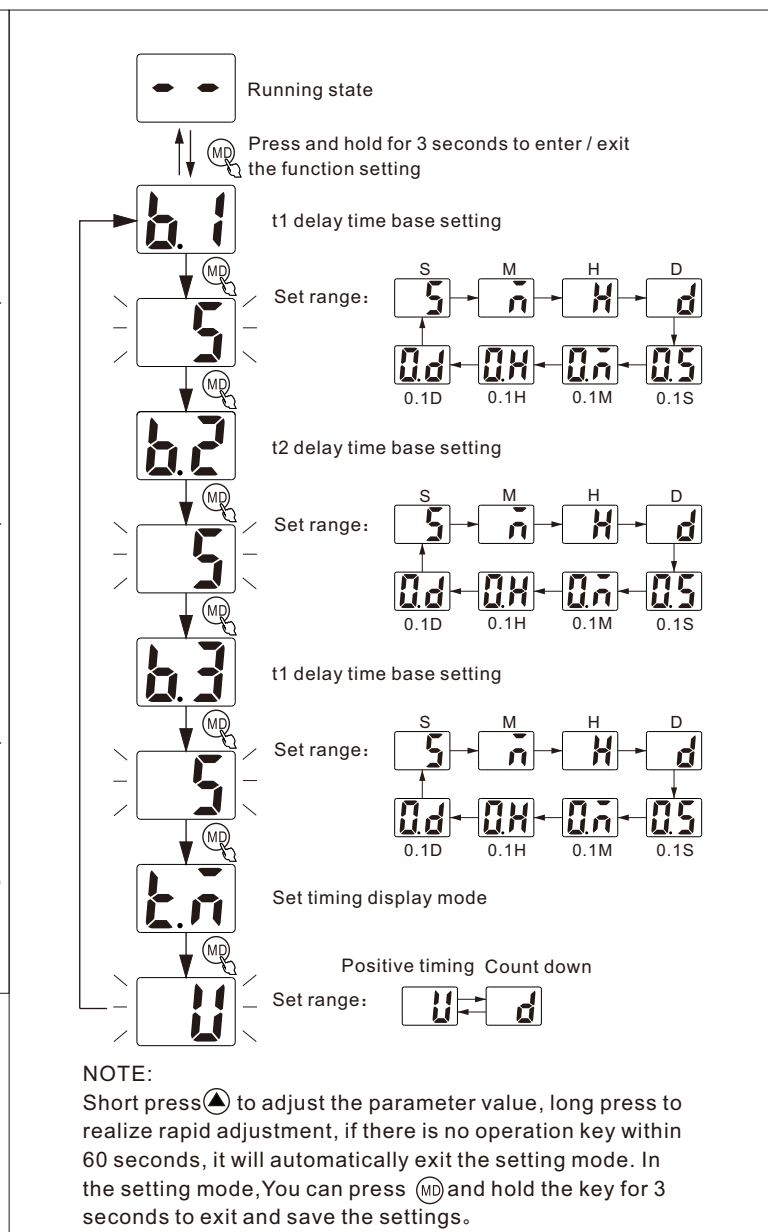
Fast adjustment of delay time



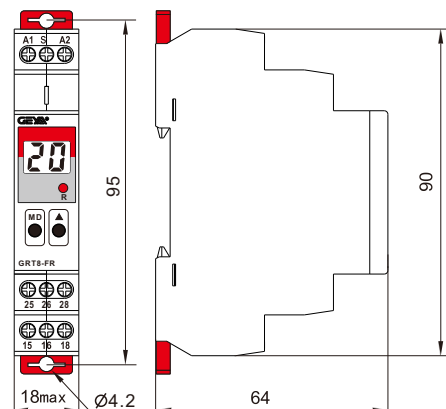
Examples



Delay function setting



Dimensions(mm)



Disposal of Electrical Waste
All electrical waste should be disposed of in compliance with current WEEE regulations.



Caution

The products must be installed by qualified electricians. All and any electrical connections of the time relay shall comply with the appropriate safety standards.