GRT8-EC
Dual function time relay

GEYA® INDUSTRIAL CONTROL

GRT8 —EC /□

- Rated control supply voltage
  - A230:AC230V ;
  - A400:AC400V;
  - S240:AC/DC24V-240V
- Dual function Time Relay
- GRT8 Series



Applications

- Dual function time relay can be used for industrial equipment, lighting control, heating element control, motor and fan control, with two delay modes, and the delay range covers 0.1 seconds to 10 days.

Feature

- Two delay modes can be set.
- Ultra wide delay range, 0.1 seconds - 10 days can be set..
- The working state of the relay is indicated by the LED indicator.
- Ultra small size, only 18mm width, 35mm rail installation.

Technical parameters

		GRT8-EC
Function		ON delay, Delay off
Supply terminals		A1-A2,A1-A3
Voltage range	S240	AC/DC 24V-240V(50-60Hz)
Power input		AC 0.3-2VA/DC 0.1-1.2W
Voltage range	A230	AC230V,AC/DC24V(50-60Hz)
Power input		AC max.6VA/1.3W
Voltage range	A380	AC380V-440V(50-60Hz)
Power input		AC max.6VA/1.3W
Supply voltage tolerance		-15%;+10%
Supply indication		green LED
Time ranges		0.1s-10day
Time setting		potentionmeter
Time deviation		≤10%
Repeat accuracy		0.2%-set value stability
Temperature coefficient		0.05%/°C , at=20°C(0.05%°F， at=68°F)
Output		1×SPDT
Current rating		1×10A(AC1)
Switching voltage		250VAC/24VDC,440VAC(Max)
Min. breaking capacity DC		500mW
Output indication		Red LED
Mechanical life		$1x10^7$
Electrical life(AC1)		$1x10^5$
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 category		III
Pollution degree		2
Max. cable size(mm^2)		solid wire max.1x2.5 or 2x1.5/with sleeve max.1x2.5(AWG 12)
Dimensions		90x18x64mm
Weight		52g
Standards		EN 61812-1.IEC6947-5-1

Functions Diagram

A:On delay (Power On)

When relay Un is powered on, the relay starts to delay, and the output contact is closed after delay t. After the relay Un is de energized, the output contact R is disconnected and the S control signal is invalid in this function mode.



As:On delay (S rising edge start)

The relay Un is in the energized state. When the S control signal is triggered, the relay starts to delay.After the delay t, the output contact R is closed and held. During the delay period, if the signal is triggered again, restart the delay.When the relay Un is de energized,the relay output contact R opens.



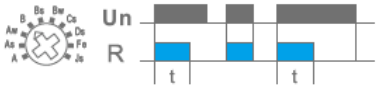
Aw:On delay (S trigger time accumulation)

When the relay Un is energized and the cumulative delay during the closing of Scontrol signal reaches t,The output contact R is closed.



B:Interval (Power On)

When relay Un is powered on, the relay output contact R will be closed immediately and start delay. After delay t, the output contact R will be disconnected. If the delay time t does not arrive and relay Un is powered off, the output contact R will be disconnected, and the S control signal is invalid in this function mode.



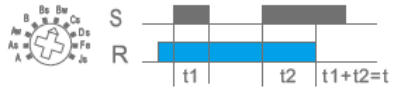
Bs:Off delay(S rising edge trigger start)

The relay Un is in the energized state. When the S control signal is connected, the output contact R of the relay is closed and starts to delay. After the delay t, the output contact R is disconnected. If the S control signal is connected again during the delay, the delay t is cleared and delayed again.



Bw:Off delay(S trigger time accumulation)

When the relay Us is powered on, the the output contact R is closed. When the cumulative delay during the closing of S control end reaches t,The output contact R is open.



Cs:Repeat Cycle (Starting Off ,S rising edge start)

The relay Un is in the energized state. When the S control signal is closed, the relay starts to delay and is input after a delay time t,The output contactR is closed, and after the delay time t, the output contact R of the relay is disconnected, This cycle will repeat until relay Us is de energized.



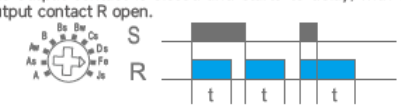
Ds:Repeat Cycle (Starting On ,S rising edge trigger start)

The relay Un is in the energized state. When the S control signal is closed,the relay output contact R closes and start delay, the output contact R is disconnected after delay t, and the relay output contact R is closed after delay t,This cycle will repeat until relay Us is de energized.



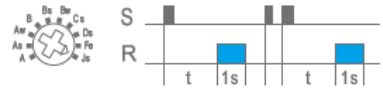
Fe:On and off delay (Triggered by rising and falling edges of S)

The relay Un is in the energized state. When the S control signal is connected, the output contact R closed and starts to delay, with a delay of t the output contact R open. When the S control signal is disconnected, the output contact is closed and starts to delay, with a delay of t the output contact R open.



Js:Pulse output (Triggered by rising edge of S)

The relay Un is in the energized state. when the S control signal is connected, the relay starts to delay, with a delay of t, the relay output contact R is closed for 1 second and then the output contact R open.

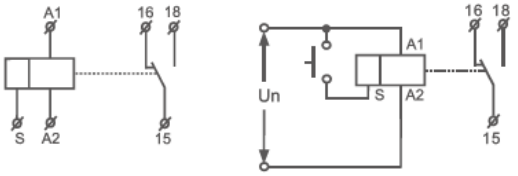


Time Range

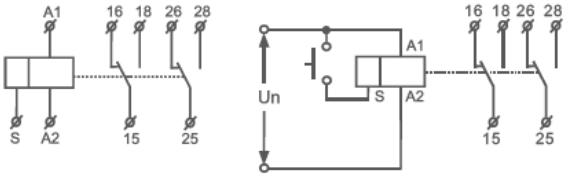
0.1 - 1s	1 - 10s	6 - 60s	1 - 10min	6 - 60min	1 - 10hr	0.1 - 1day	1 - 10day	only ON	only OFF
									

Wiring Diagram

GRT8-N1



GRT8-N2



Dimensions(mm)

