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GEYA GRT6-B2

GEYA GRT6-B2 10A Delay Off Time Relay User Manual

Electronic Type Adjustable Delay Timer 2NO2NC DIN Rail (AC/DC 24V-240V)

1. PRODUCT OVERVIEW

The GEYA GRT6-B2 is an electronic delay off time relay designed for industrial and domestic applications. It features adjustable delay settings and is suitable for DIN rail mounting. This manual provides essential information for safe installation, operation, and maintenance.

Key Features:

- Adjustable Delay:** Delay can be set directly via panel knobs for convenience and intuitive control.
- Function Modes:** Supports two primary functions: Delay ON (A) and Delay OFF (B). The GRT6-B2 model features 2SPDT (2NO2NC) contacts.
- Wide Time Range:** Time scale from 0.1 seconds to 10 days, divided into 10 selectable ranges.
- Status Indication:** Equipped with LED indicators for power (green light) and working status (red light).
- Compact Design:** Ultra-small size, only 18mm width, designed for 35mm DIN rail mounting.

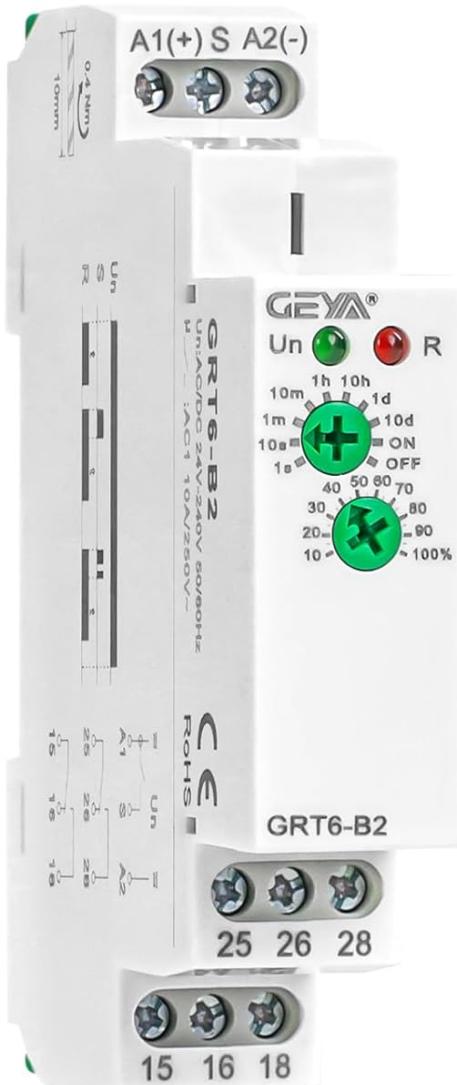


Figure 1: Front view of the GEYA GRT6-B2 Delay Off Time Relay, showing control knobs and terminals.

2. SAFETY INFORMATION

Please read this manual carefully before installation and operation. Failure to follow these instructions may result in equipment damage, injury, or death. This device should only be installed and serviced by qualified personnel.

- Always disconnect power before installing, wiring, or performing maintenance on the device.
- Ensure all wiring complies with local and national electrical codes.
- Do not operate the device if it is damaged or malfunctioning.
- Protect the device from moisture, dust, and extreme temperatures.
- Verify correct voltage and current ratings before connecting to a power source.

3. PRODUCT DIMENSIONS AND COMPONENTS

The GRT6-B2 relay is designed for compact installation on a DIN rail. Understanding its dimensions and component layout

is crucial for proper integration into your system.

PRODUCT DIMENSIONS(MM)

GRT6-B2 AC/DC24V-240V

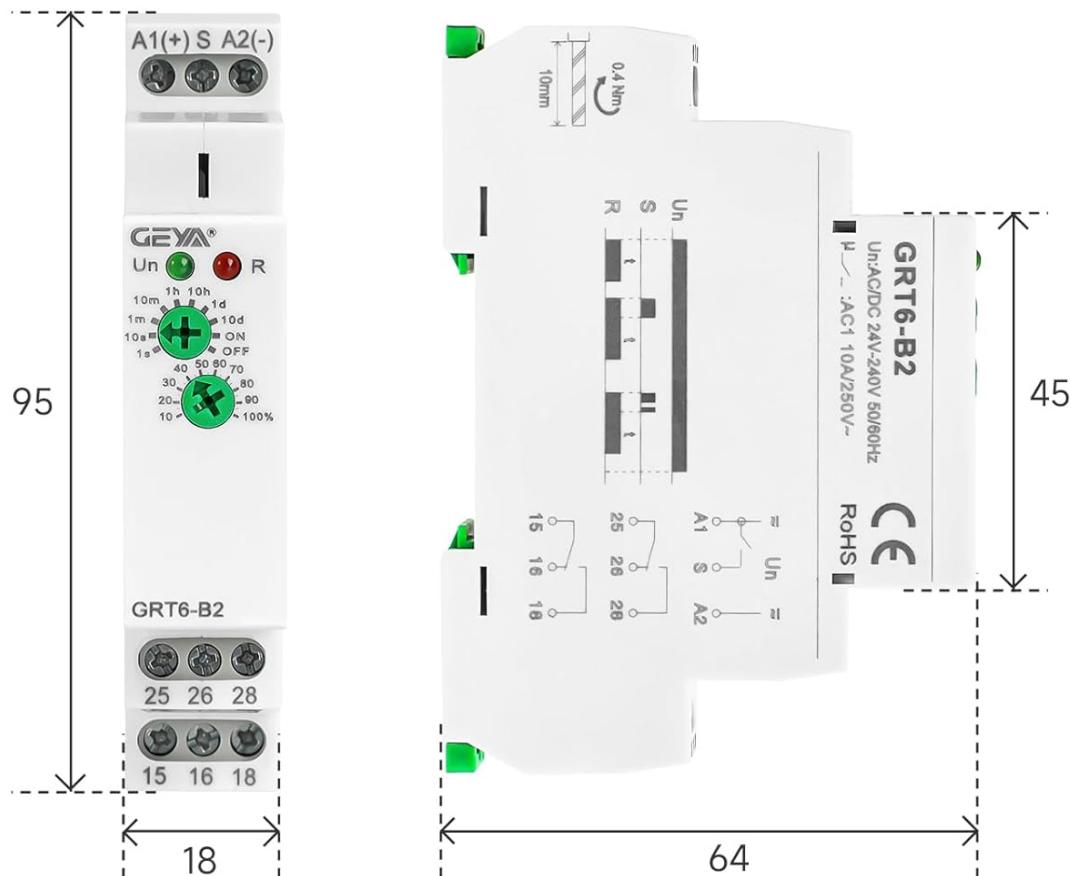


Figure 2: Detailed dimensions of the GRT6-B2 relay in millimeters. The device measures 18mm in width, 95mm in height, and 64mm in depth.

AC230V OR AC/DC24V-240V

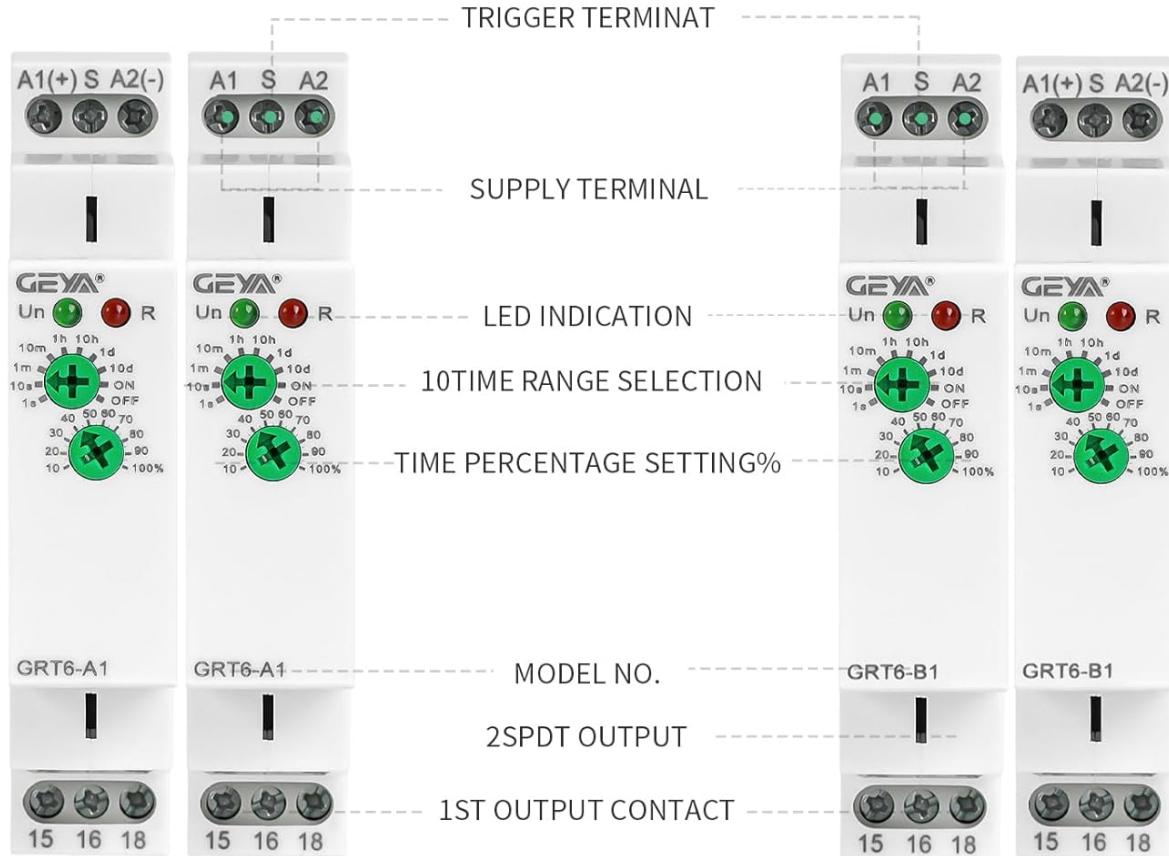


Figure 3: Overview of different GRT6 models, highlighting common components such as trigger terminal, supply terminal, LED indication, time range selection, time percentage setting, model number, and output contacts.

4. INSTALLATION AND WIRING

The GEYA GRT6-B2 relay is designed for easy installation on a 35mm DIN rail. Follow these steps for secure mounting and correct electrical connections.

4.1 DIN Rail Mounting

The relay snaps onto a standard 35mm DIN rail. Ensure it is securely fastened to prevent movement during operation.

4.2 Electrical Wiring

Refer to the wiring diagrams below for proper connection of the power supply and load. Always ensure power is disconnected before wiring.

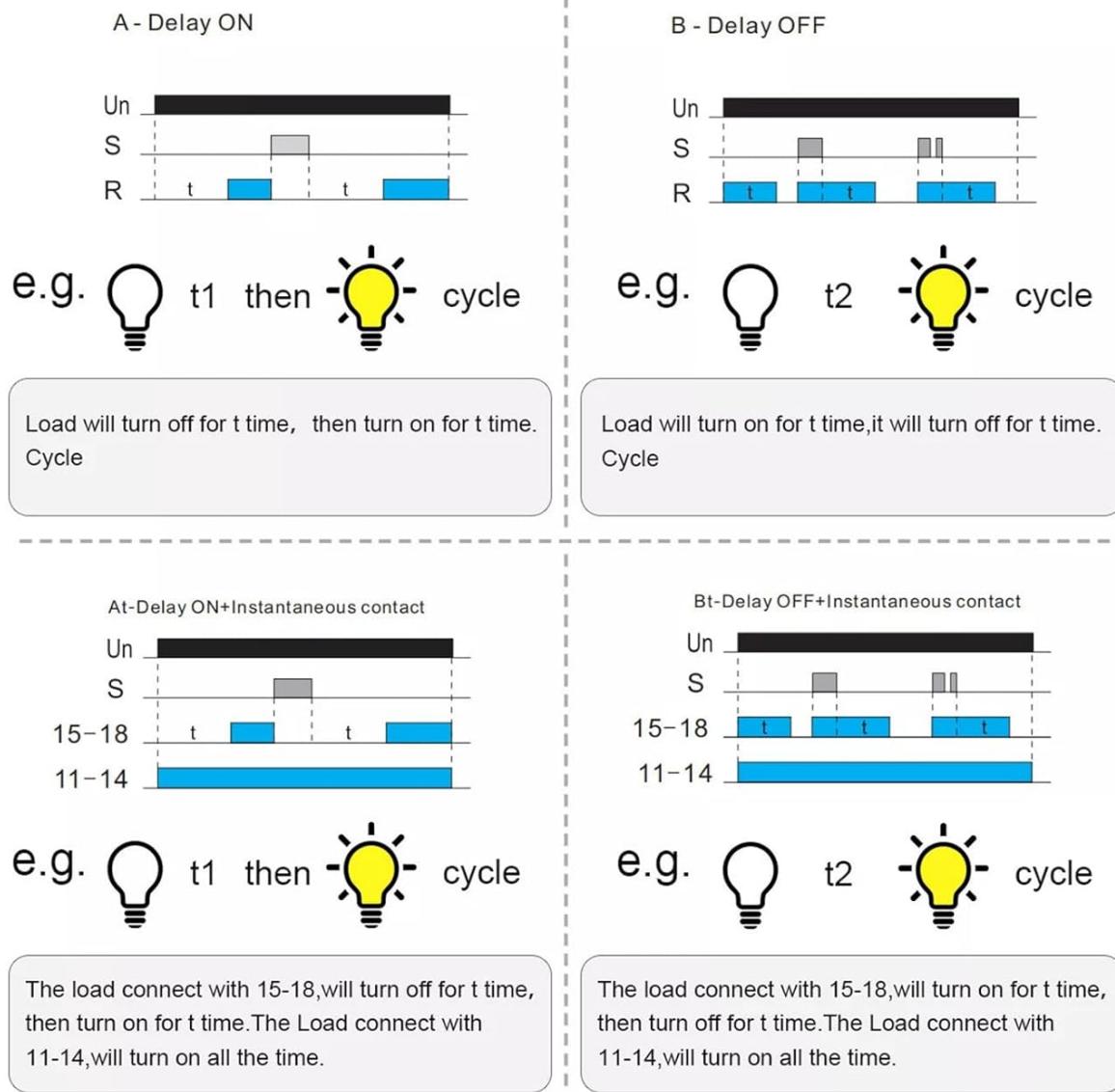


Figure 4: Wiring diagrams for GRT6-A1/B1 (1SPDT) and GRT6-A2/B2 (2SPDT) models. Connect L (Line) and N (Neutral) to A1 and A2 respectively for power supply. Output contacts are typically 15, 16, 18 for 1SPDT and 15, 16, 18 and 25, 26, 28 for 2SPDT.

4.3 Power Connection Demonstration

Watch this video for a visual guide on connecting power and load to the GRT6-B1 model, which shares similar wiring principles with the GRT6-B2.

Video 1: Demonstration of power connection and load access for a GEYA GRT6-B1 time relay. This video illustrates the physical wiring process and initial setup.

5. OPERATING INSTRUCTIONS

The GRT6-B2 relay offers adjustable delay functions. Follow these steps to configure and operate your device.

5.1 Function Modes

The GRT6-B2 supports two main function modes:

- **A: Delay ON:** The output contacts close after a set delay time once power is applied.
- **B: Delay OFF:** The output contacts open after a set delay time once the trigger signal is removed or power is disconnected.

TECHNICAL PARAMETERS

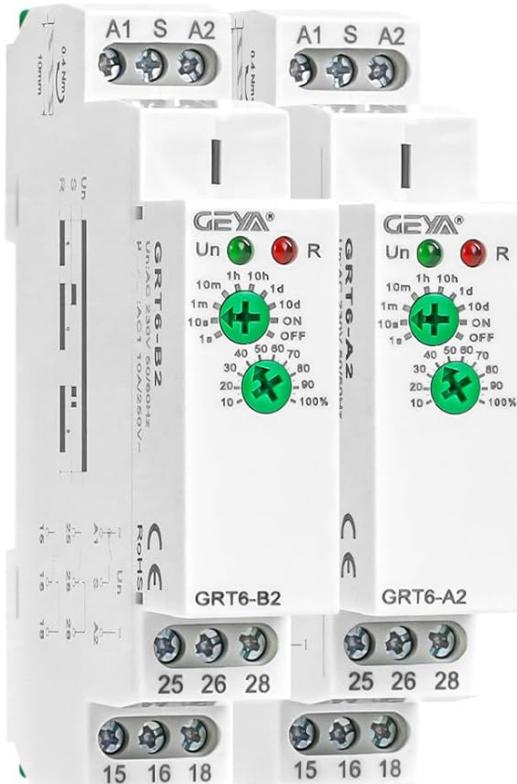
Technical parameters	GRT6-A1/B1	GRT6-A2/B2	GRT6-At/Bt
Function		A:delay ON;B:delay OFF	
Supply terminals		A1-A2	
Voltage range	S240	AC/DC 24-240V(50-60Hz)	
Burden		AC 0.7-3VA/DC 0.5-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input		AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Time ranges		0.1s-10days,ON,OFF	
Time setting		potentionmeter	
Time deviation		10%-mechanical setting	
Repeat accuracy		0.2%-set value stability	
Temperature coecient		0.05%/ $^{\circ}$ C,at=20 $^{\circ}$ C(0.05% $^{\circ}$ F, at=68 $^{\circ}$ F)	
Output	1×SPDT	2×SPDT	1×SPDT(del)+1×SPDT(ins)
Current rating		10A/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 $^{\circ}$ C to +55 $^{\circ}$ C (-4 $^{\circ}$ F to 131 $^{\circ}$ F)	
Storage temperature		-35 $^{\circ}$ C to +75 $^{\circ}$ C (-22 $^{\circ}$ F to 158 $^{\circ}$ F)	
Mounting/DIN rail		Din rail EN/IEC 60715	

Figure 5: Timing diagrams illustrating the A (Delay ON) and B (Delay OFF) functions. These diagrams show how the output (R) responds to the input voltage (Un) and trigger signal (S) over time.

5.2 Time Setting

The delay time is set using two rotary knobs on the front panel: one for time range and one for percentage.

HOW TO SET TIME



Time Range



Percentage

Set the time you need accurately in just two simple steps

Example: Set a delay ON 5 minutes

- 1 Adjust the time range knob to 10m
- 2 Turn the percentage knob to 50%

Figure 6: Instructions on how to set the delay time. First, select the desired time range (e.g., 10m for 10 minutes). Second, adjust the percentage knob (e.g., 50%) to achieve the precise delay (e.g., 5 minutes for 10m range at 50%).

5.3 LED Indicators

- **Green LED:** Indicates power supply status.
- **Red LED:** Indicates the working status of the relay (e.g., timing in progress, output active).

6. MAINTENANCE

The GEYA GRT6-B2 time relay is designed for reliable operation with minimal maintenance. However, periodic checks can help ensure its longevity and proper function.

- **Cleaning:** Keep the device clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquid cleaners.
- **Inspection:** Periodically inspect wiring connections to ensure they are secure and free from corrosion. Check for any signs of physical damage or overheating.

- **Environment:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent premature failure.

7. TROUBLESHOOTING

If the GEYA GRT6-B2 relay is not functioning as expected, consider the following common issues:

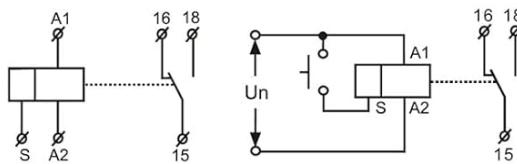
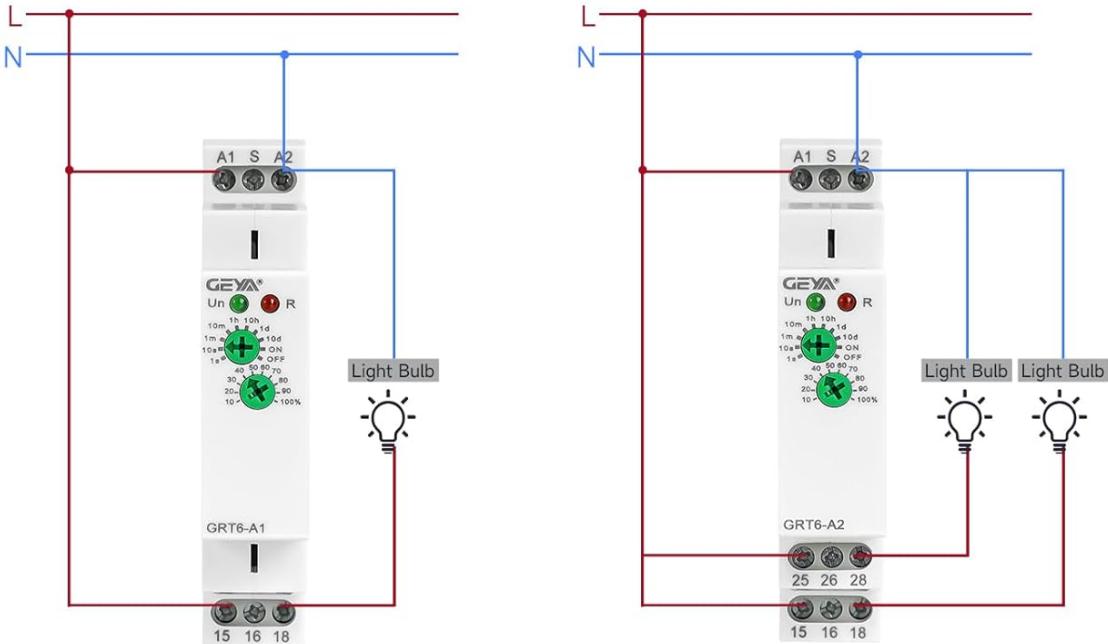
- **No Power Indication (Green LED Off):** Check the power supply connections (A1, A2) and ensure the voltage is within the specified range (AC/DC 24V-240V).
- **Relay Not Activating/Deactivating:**
 - Verify the function mode (A or B) is correctly selected.
 - Check the time range and percentage settings.
 - Ensure the trigger signal (S) is correctly applied for Delay OFF functions.
 - Inspect load connections and ensure the load is functioning correctly.
- **Incorrect Timing:** Re-check the time range and percentage settings. Ensure the knobs are firmly set to the desired values.
- **Overheating:** If the device feels excessively hot, check the load current to ensure it does not exceed the relay's maximum rating (10A/AC1).

If problems persist after checking these points, contact a qualified electrician or the manufacturer for assistance.

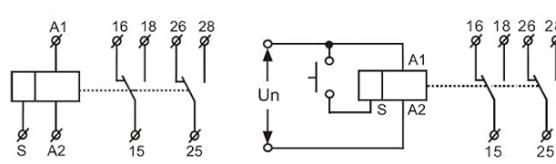
8. SPECIFICATIONS

Detailed technical specifications for the GEYA GRT6-B2 time relay.

PRODUCT WIRING



GRT6-A1/B1



GRT6-A2/B2

Figure 7: Comprehensive table of technical parameters for GRT6-A1/B1, GRT6-A2/B2, and GRT6-At/Bt models. This includes function, supply terminals, voltage range, burden, power input, supply voltage tolerance, supply indication, time ranges, time setting, time deviation, repeat accuracy, temperature coefficient, output, current rating, switching voltage, minimum breaking capacity DC, output indication, mechanical life, electrical life (AC1), reset time, operating temperature, storage temperature, and mounting type.

GEYA GRT6-B2 General Specifications

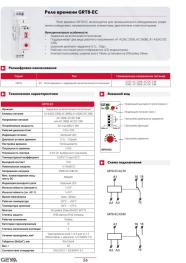
Parameter	Value
Brand	GEYA
Model	GRT6-B2
Function	Delay ON (A), Delay OFF (B)
Supply Terminals	A1-A2
Voltage Range	AC/DC 24V-240V (50-60Hz)
Power Input	AC max. 6VA/1.9W

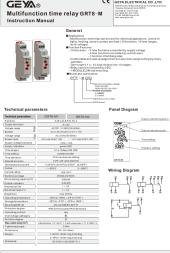
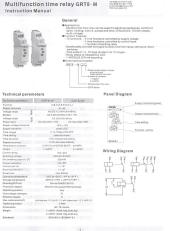
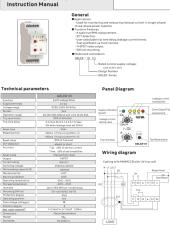
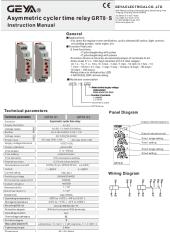
Parameter	Value
Time Ranges	0.1s - 10 days (ON, OFF)
Time Setting	Potentiometer
Output	2xSPDT (2NO2NC)
Current Rating	10A/AC1
Switching Voltage	250VAC/24VDC
Operating Temperature	-20°C to +55°C (-4°F to 131°F)
Storage Temperature	-35°C to +75°C (-22°F to 158°F)
Mounting	DIN rail EN/IEC 60715
Dimensions (L x W x H)	64mm x 18mm x 95mm (approx.)
Weight	Approx. 2.08 ounces

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact your seller. If you require technical support or have questions regarding the GEYA GRT6-B2 time relay, please reach out to the manufacturer or authorized distributor.

Related Documents - GRT6-B2

	<p>GEYA GRT8-EC Time Relay - Technical Specifications and Features</p> <p>Detailed technical specifications, features, and operational guidance for the GEYA GRT8-EC time relay. This relay is designed for industrial automation, controlling lighting, heating elements, motors, and fans, offering adjustable delay times and DIN rail mounting.</p>

	<p>GEYA GRT8-M Multifunction Time Relay - Instruction Manual</p> <p>Comprehensive instruction manual for the GEYA GRT8-M Multifunction Time Relay, detailing its applications, technical specifications, functions, wiring, and installation.</p>
	<p>GEYA GRT8-M Multifunction Time Relay Instruction Manual</p> <p>Instruction manual for the GEYA GRT8-M multifunction time relay, detailing its applications, features, technical specifications, functions, dimensions, and wiring diagrams. Provides guidance on installation and setting.</p>
	<p>GEYA GRLE8-01 Earth Leakage Relay: Instruction Manual & Technical Specifications</p> <p>Comprehensive instruction manual for the GEYA GRLE8-01 Earth Leakage Relay. Details applications, technical parameters, wiring diagrams, panel layout, testing procedures, dimensions, and ZCT accessory options for electrical safety monitoring.</p>
	<p>GEYA GRT8-S Asymmetric Cycler Time Relay Instruction Manual</p> <p>Instruction manual for the GEYA GRT8-S Asymmetric Cycler Time Relay. Covers applications, function features, technical specifications, panel and wiring diagrams, and setting instructions for ventilation, lighting, and pump control.</p>