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GEYA
Industrial Control Product Catalog

GEYA
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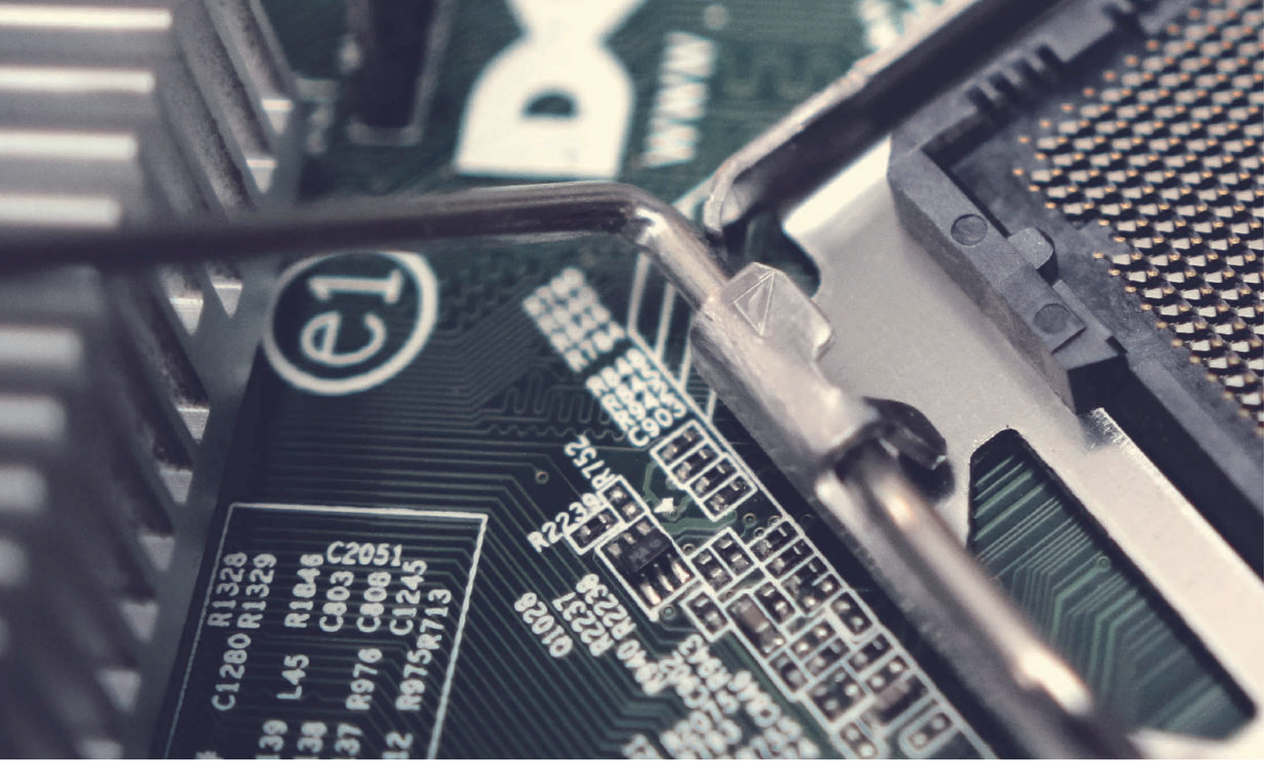
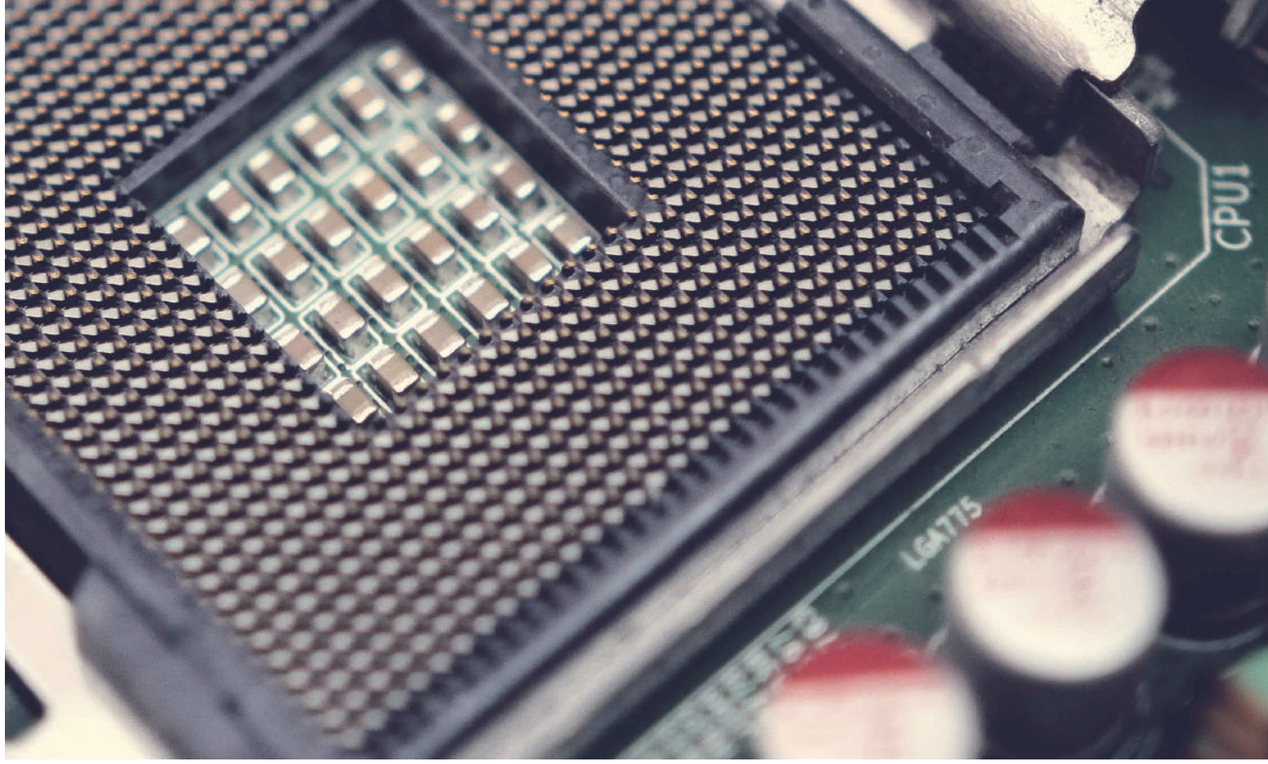




Zhejiang Geya Electrical Co.,Ltd

Company Profile

Founded in 2007,Geya Electrical Co. Ltd was located in Wenzhou, Zhejiang, China. Our company integrates R&D, production and sales, and committed to be the technology enterprise of low-voltage electrical equipment and automation control products.
After years of operating, our annual turnover has exceeded 100 million yuan. Geya’s product series involve a variety of low-voltage electrical equipment and automation control products, including miniature circuit breaker (MCB), molded case circuit breaker (MCCB), residual circuit breaker (RCB), isolation switch, contactors, relays, timer, distribution box, etc. The product series are complete and the application fields are wide, which is widely recognized by domestic and foreign customers.

Our four major sales areas cover six continents, and Geya has been chosen and trusted by more than 40 foreign companies. We takes the development concept of "pursue nature of things, reach to the world", sticking to high standards and high quality.
We have obtained a number of national invention patents, and deployed our brand GEYA in most countries around the world. Global certifications include CCC, CE, SAA, SEMKO, TUV, CE and other EU authoritative certifications. Our sales team gradually promote Geya brand to the global market, we sincerely welcome customers to achieve win-win and common development with Geya!

CONTENTS

Catalogue

GEYA

Single-function time relay

Applications

-Suitable for applications where function and time requirements are know.
-Time switch , possible to be used for pump decay time after switching heating off , switching of fans.

Feature

-Single-function relay with possibility of time setting by a potentiometer.
-Choice of 2 functions:
A:Delay ON
B:Delay OFF
-Time scale 0.1 s - 10 days divided into 10 ranges.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRT8 — A □/□

- Rated control supply voltage
  A230:AC230V ;
  W240:AC/DC12V-240V;
- Number of contacts
  1:1×SPDT;
  2:2×SPDT;
  t:1×SPDT(del)+1×SPDT(ins);
- Function mode
  A :Delay ON;
  B :Delay ON;
- GRT8 Series

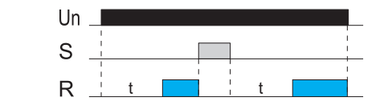
Technical parameters

		GRT8-A1/B1	GRT8-A2/B2	GRT8-At/Bt
Function		A:delay ON ; B:delay OFF		
Supply terminals		A1-A2		
Voltage range	W240	AC/DC 12-240V(50-60Hz)		
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W		
Voltage range	A230	AC 230V(50-60Hz)		
Power input	A230	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 coefficient		0.05%/°C,at=20°C(0.05%°F，at=68°F)		
Output		1×SPDT	2×SPDT	1×SPDT(del)+1×SPDT(ins)
Current rating		1×16A(AC1)	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		1×SPDT:W240-60g,A230-59g		
		2×SPDT:W240-81g,A230-79g		
Standards		EN 61812-1,IEC6947-5-1		

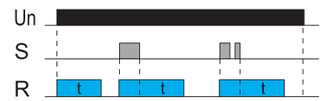
Time Relay | GEYA

Functions Diagram

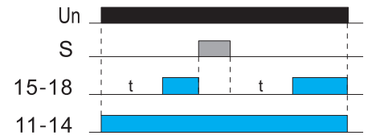
A - Delay ON



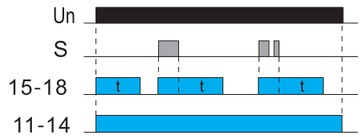
B - Delay OFF



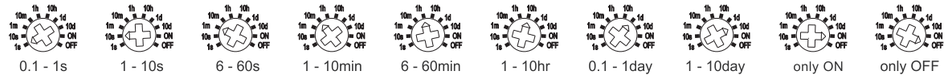
At-Delay ON+Instantaneous contact



Bt-Delay OFF+Instantaneous contact

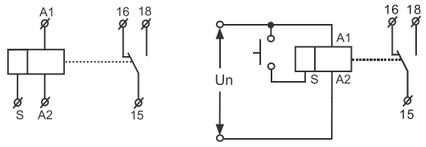


Time Range

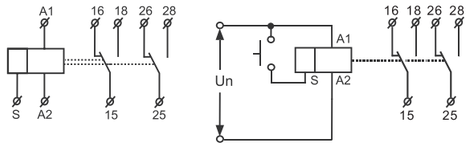


Wiring Diagram

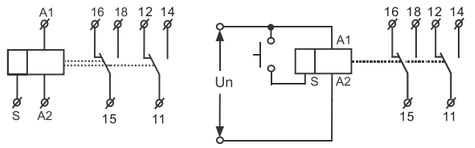
GRT8-A1/B1



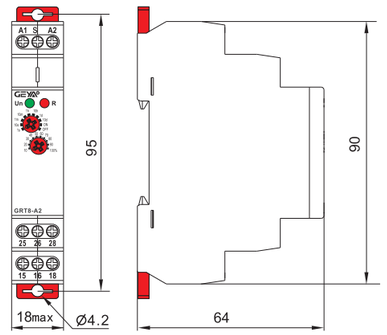
GRT8-A2/B2



GRT8-At/Bt



Dimensions(mm)



Multifunction time relay

Applications

-Multifunction time relay can be used for electrical appliances, control of lights, heating, motors, pumps and fans (10 functions, 10 time ranges, multi-voltage).

Feature

-10 functions: - 5 time functions controlled by supply voltage
- 4 time functions controlled by control input
- 1 function of latching relay

-Comfortable and well-arranged function and time-range setting by rotary switches.
-Time scale 0.1 s - 10 days divided into 10 ranges.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRT8 — M □/□

- Rated control supply voltage
  A230:AC230V;
  W240:AC/DC12V-240V;
- Number of contacts
  1:1×SPDT;
  2:2×SPDT;
- Multifunction time relay
- GRT8 Series

Technical parameters

		GRT8-M1	GRT8-M2
Function		A,B,C,D,E,F,G,H,I,J	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	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 coefficient		0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	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		1×SPDT:W240-62g,A230-60g	
		2×SPDT:W240-82g,A230-81g	
Standards		EN 61812-1,IEC60947-5-1	

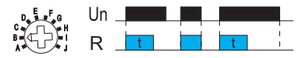
Functions Diagram

A:On Delay (Power On)

When the input voltage U is applied, timing delay t begins. Relay contacts R change state after time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.

B:Interval (Power On)

When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage U is removed, contacts will also return to their shelfstate. Trigger switch is not used in this function.

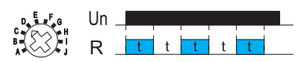


C:Repeat Cycle (Starting Off)

When input voltage U is applied, time delay t begins. When time delay t is complete, relay contacts R change state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.

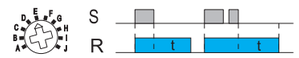
D:Repeat Cycle (Starting On)

When input voltage U is applied, relay contacts R change state immediately and time delay t begins. When time delay t is complete, contacts return to their shelf state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.



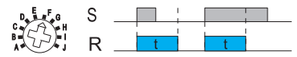
E:Off Delay (S Break)

Input voltage U must be applied continuously. When trigger switch S is closed, relay contacts R change state. When trigger switch S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger switch S is closed before time delay t is complete, then time is reset. When trigger switch S is opened, the delay begins again, and relay contacts R remain in their energized state. If input voltage U is removed, relay contacts R return to their shelf state.



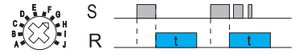
F:Single Shot

Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.



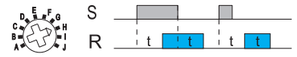
G:Single Shot Trailing Edge (Non-Retriggerable)

Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger switch S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger switch S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is removed, relay contacts R return to their shelf state



H:On/Off Delay

Input voltage U must be applied continuously. When trigger switch S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger switch S is opened.
If input voltage U is removed, relay contacts R return to their shelf state.

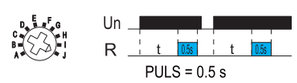


I:Latching relay

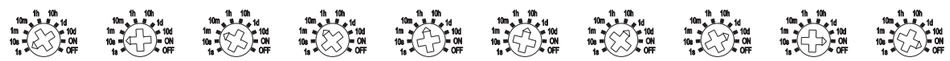
Input voltage U must be applied continuously. Output changes state with every trigger switch S closure. If input voltage U is removed, relay contacts R return to their shelf state.

J:Pulse generator

Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and re-applied to repeat pulse. Trigger switch is not used in this function.

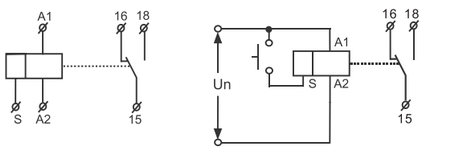


Time Range

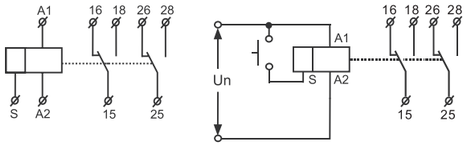


Wiring Diagram

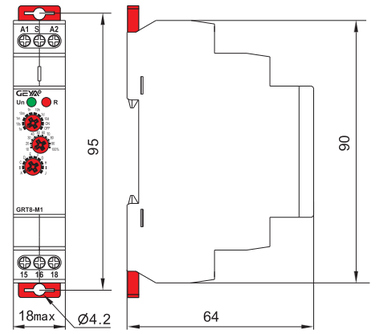
GRT8-M1



GRT8-M2



Dimensions(mm)



Extended multifunction time relay

Applications

-Multifunction time relay can be used for electrical appliances, control of lights, heating, motors, pumps and fans (10 functions, 10 time ranges, multi-voltage).

Feature

-10 functions: - 8 time functions controlled by supply voltage
- 2 time functions controlled by control input

-Comfortable and well-arranged function and time-range setting by rotary switches.
-Time scale 0.1 s - 10 days divided into 10 ranges.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRT8 — N □/□

- Rated control supply voltage
  A230:AC230V;
  W240:AC/DC12V-240V;
- Number of contacts
  1:1×SPDT;
  2:2×SPDT;
- Extended multifunction time relay
- GRT8 Series

Technical parameters

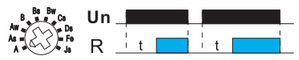
		GRT8-N1	GRT8-N2
Function		A,As,Aw,B,Bs,Bw,Cs,Ds,Fe,Js	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		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 coefficient		0.05%/℃,at=20℃(0.05%°F，at=68°F)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	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℃ to +55℃（-4°F to 131°F）	
Storage temperature		-35℃ to +75℃（-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		1×SPDT:W240-62g,A230-60g	
		2×SPDT:W240-82g,A230-81g	
Standards		EN 61812-1,IEC60947-5-1	

Time Relay | GEYA

Functions Diagram

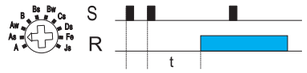
A:On delay (Power On)

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.



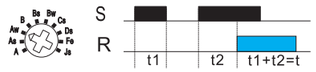
As:On delay (S rising edge start)

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.



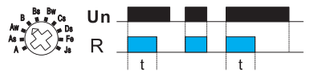
Aw:On delay (S trigger time accumulation)

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



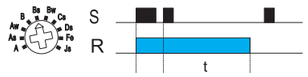
B:Interval (Power On)

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.



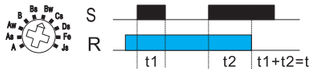
Bs:Off delay(S rising edge trigger start)

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.



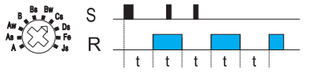
Bw:Off delay(S trigger time accumulation)

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.



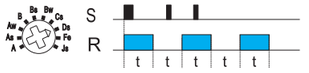
Cs:Repeat Cycle (Starting Off ,S rising edge start)

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 contact R 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.



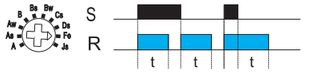
Ds:Repeat Cycle (Starting On ,S rising edge trigger start)

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.



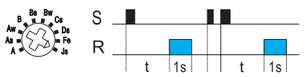
Fe:On and off delay (Triggered by rising and falling edges of S)

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.

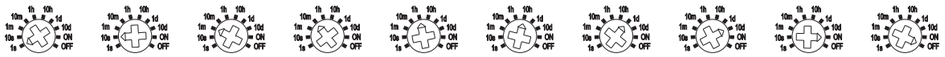


Js:Pulse output (Triggered by rising edge of S)

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.

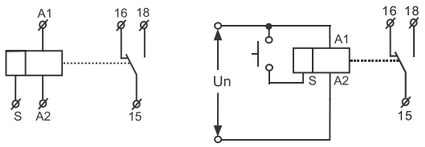


Time Range

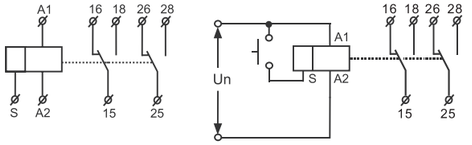


Wiring Diagram

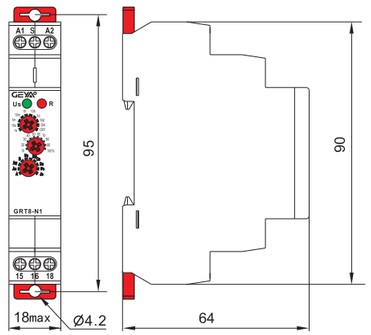
GRT8-N1



GRT8-N2



Dimensions(mm)



Dual function time relay

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 10days.

Feature

-Two delay modes can be set.
-Supports AC230V ,AC/DC24V two kinds of working voltage.
-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.

Model and connotation

GRT8 – EC /□

- Rated control supply voltage
  - A230:AC230V;
  - A400:AC400V;
- Dual function Time Relay
- GRT8 Series

Technical parameters

	GRT8-EC
Function	ON delay, Delay off
Supply terminals	A1-A2(AC230V,AC380V),A1-A3(AC/DC24V)
Voltage range	AC230V(50-60Hz) or AC/DC24V, AC380V(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%/℃,at=20℃(0.05%℉，at=68℉)
Output	1×SPDT
Current rating	1×10A(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℃ to +55℃（-4℉ to 131℉）
Storage temperature	-35℃ to +75℃（-22℉ to 158℉）
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	52g
Standards	EN 61812-1,IEC60947-5-1

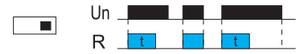
Functions Diagram

Delay on

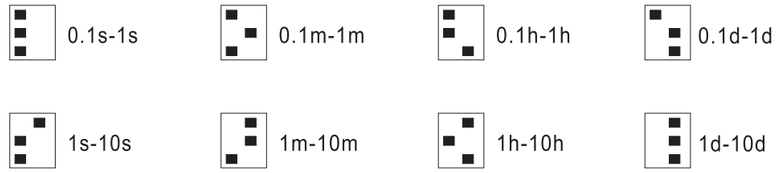
When the relay Un is powered on, the relay starts to delay, and the output contact closes after delay. When Un is powered off, the output contact is disconnected.

Delay off

When the relay Un is powered on, the output contact of the relay will close immediately and start to delay, and output after delay,The contact is open. If the delay time t is not up to the power loss of relay Un, the output contact is open.

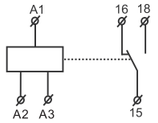


Time Range

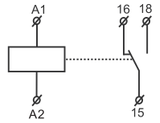


Wiring Diagram

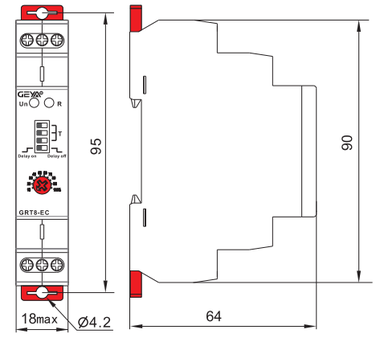
GRT8-EC/A230



GRT8-EC/A400



Dimensions(mm)



Digital Setting Time Relay

Applications

-Multifunctional time relay with digital settings can be used for industrial equipment, lighting control, heating element control, motor and fan control. It has four delay modes and the delay range covers 0.1 seconds to 99 hours.

Feature

- Four functional modes can be set.
- Through digital dialing settings, it is easy to operate and set more precisely.
- Extra wide delay range, 0.1 seconds - 99 hours can be set.
- With AC/DC 12V-240V ultra wide operating voltage specifications are optional.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRT8 — K □/□

- □ (last): Rated control supply voltage
  - A230:AC230V;
  - W240:AC/DC12V-240V;
- □ (middle): Number of contacts
  - 1:1×SPDT;
  - 2:2×SPDT;
- K: Digital Setting Time Relay
- GRT8: GRT8 Series

Technical parameters

		GRT8-K1	GRT8-K2
Function		A,B,E,F,	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Time ranges		0.1s-99h,ON,OFF	
Time setting		Digital switch	
Time deviation		≤1%	
Repeat accuracy		0.2%-set value stability	
Temperature coefficient		0.05%/℃,at=20℃(0.05%°F，at=68°F)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	2×8A(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		1×SPDT:W240-64g,A230-64g	
		2×SPDT:W240-72g,A230-72g	
Standards		EN 61812-1,IEC60947-5-1	

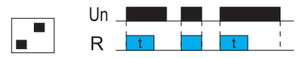
Functions Diagram

A:On Delay (Power On)

When the input voltage U is applied, timing delay t begins. Relay contacts R change state after time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.

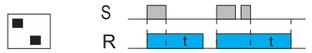
B:Interval (Power On)

When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage U is removed, contacts will also return to their shelfstate. Trigger switch is not used in this function.



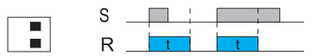
E:Off Delay (S Break)

Input voltage U must be applied continuously. When trigger switch S is closed, relay contacts R change state. When trigger switch S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger switch S is closed before time delay t is complete, then time is reset. When trigger switch S is opened, the delay begins again, and relay contacts R remain in their energized state. If input voltage U is removed, relay contacts R return to their shelf state.

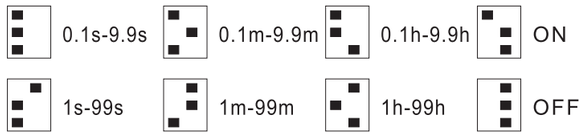


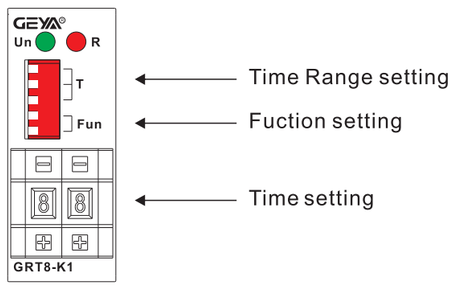
F:Single Shot

Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.



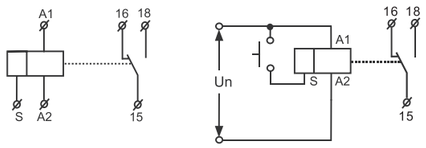
Time Range



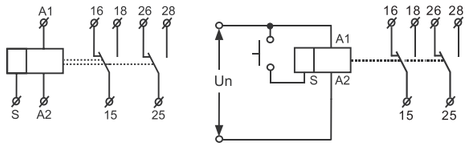


Wiring Diagram

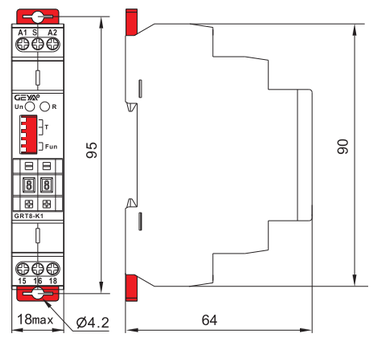
GRT8-K1



GRT8-K2



Dimensions(mm)



Digital display time relay

Applications

-Multifunctional time relay can be used for industrial equipment, lighting control, heating element control, motor, fan control.
-With 20 delay modes, the delay range covers 0.1 seconds to 99 days.

Feature

-20 delay modes:
  -5 delay modes controlled by power supply
  -13 delay modes controlled by signal
  -ON, OFF mode
-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

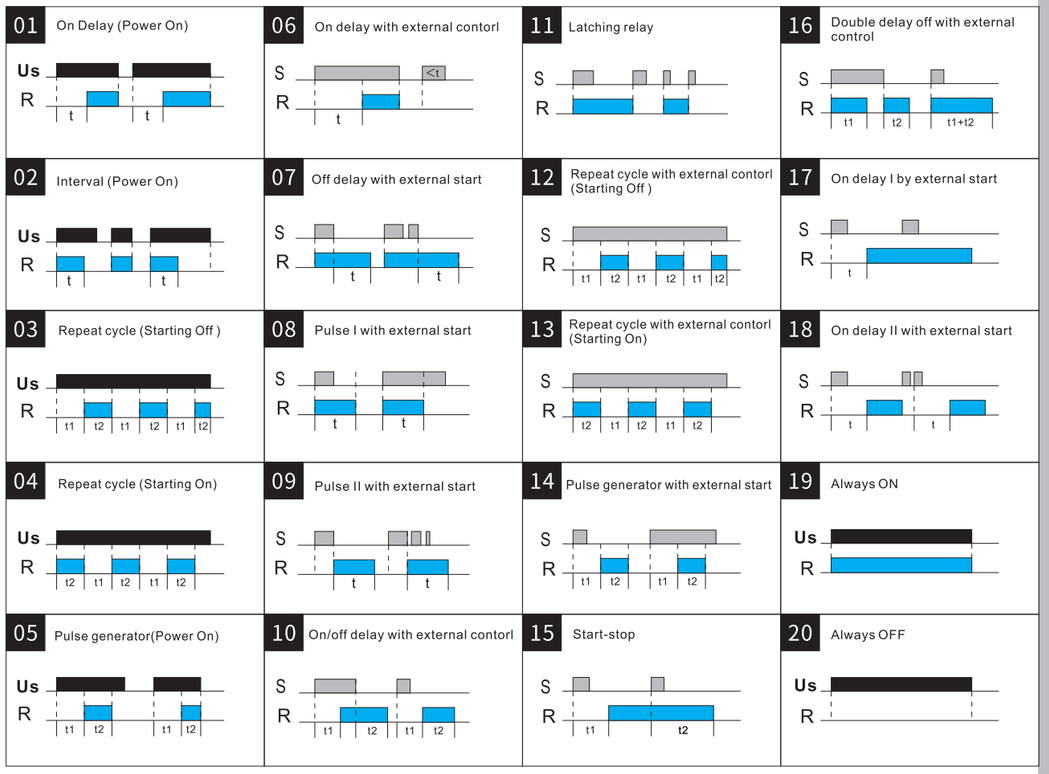
GRT8 — X □/□

- Rated control supply voltage
  A230:AC230V;
  W240:AC/DC12V-240V;
- Number of contacts
  1:1×SPDT;
  2:2×SPDT;
- Digital Setting Time Relay
- GRT8 Series

Technical parameters

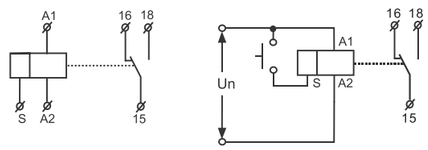
		GRT8-X1	GRT8-X2
Function		20 functions	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Time ranges		0.1s-99day,ON,OFF	
Time setting		Key setting	
Time deviation		≤1%	
Repeat accuracy		0.2%-set value stability	
Temperature coefficient		0.05%/℃,at=20℃(0.05%℉，at=68℉)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	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℃ to +55℃ (-4℉ to 131℉)	
Storage temperature		-35℃ to +75℃ (-22℉ to 158℉)	
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		1×SPDT:W240-62g,A230-60g	
		2×SPDT:W240-82g,A230-81g	
Standards		EN 61812-1,IEC60947-5-1	

Functions Diagram

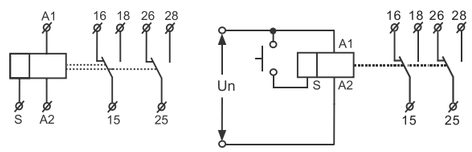


Wiring Diagram

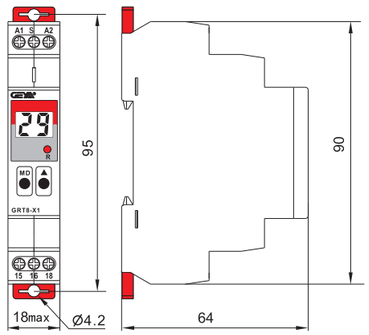
GRT8-X1



GRT8-X2



Dimensions(mm)



Double delay time relay

Applications

-For gradual switching of heavy powers (e.g. el.heating), prevents current strokes in the main.

Feature

- 2x Delay ON (2 time relays in one)
-Time scale 0.1s - 10 days divided into 10 time ranges:
0.1s - 1s / 1s - 10s / 0.1min - 1min / 1min - 10min / 0.1h - 1h / 1h - 10hrs / 0.1 day - 1 day / 1 day - 10 days / ON / OFF.
-Times t1 and t2 are independantly adjustable.
- t1 and t2 are switched on after supply voltage connection.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

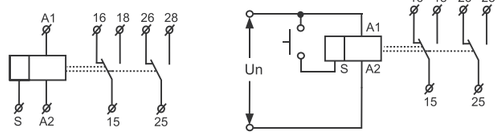
GRT8 – 2T /□

- Rated control supply voltage:
  A230:AC230V
  W240:AC/DC12V-240V
- Double time delay relay
- GRT8 Series

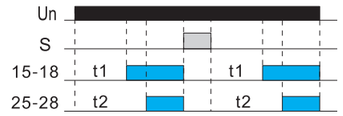
Technical parameters

		GRT8-2T
Function		2x Delay ON
Supply terminals		A1-A2
Voltage range	W240	AC/DC 12-240V(50-60Hz)
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W
Voltage range	A230	AC 230V(50-60Hz)
Power input	A230	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 coefficient		0.05%/℃,at=20℃(0.05%°F，at=68°F)
Output		2×SPDT
Current rating		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℃ to +55℃（-4°F to 131°F）
Storage temperature		-35℃ to +75℃（-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		W240-82g,A230-82g
Standards		EN 61812-1,IEC60947-5-1

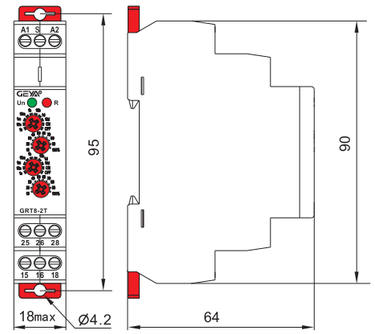
Wiring Diagram



Functions Diagram



Dimensions(mm)



Asymmetric cycler time relay

Applications

-It is used for regular room ventilation, cyclic dehumidification, light control, circulating pumps, noon signs, etc.

Feature

-2 time functions:
-Cycler beginning with pulse
-Cycler beginning with pause
-Function choice is done by an external jumper of terminals S-A1.
-Time scale 0.1 s - 100 days devided into 10 time ranges:
(0.1 s - 1 s / 1 s - 10 s / 0.1 min - 1 min / 1 min - 10 min / 0.1 hrs - 1 h / 1 hrs - 10 hrs / 0.1 day - 1 day /1 day - 10 days /3 days - 30 days / 10 days - 100 days).
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

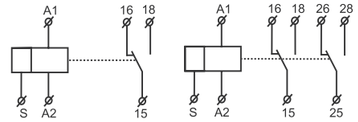
GRT8 — S □/□

- Rated control supply voltage
  A230:AC230V
  W240:AC/DC-240V
- Number of contacts
  1:1×SPDT
  2:2×SPDT
- Asymmetric cycler
- GRT8 Series

Technical parameters

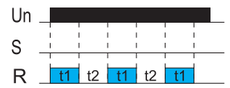
		GRT8-S1	GRT8-S2
Function		Asymmetric cycler time relay	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Time ranges		0.1s-10days	
Time setting		potentionmeter	
Time deviation		10%-mechanical setting	
Repeat accuracy		0.2%-set value stability	
Temperature coefficient		0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	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℃ to +55℃（-4°F to 131°F）	
Storage temperature		-35℃ to +75℃（-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		1×SPDT:W240-62g,A230-61g	
		2×SPDT:W240-82g,A230-82g	
Standards		EN 61812-1,IEC60947-5-1	

Wiring Diagram

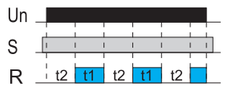


Functions Diagram

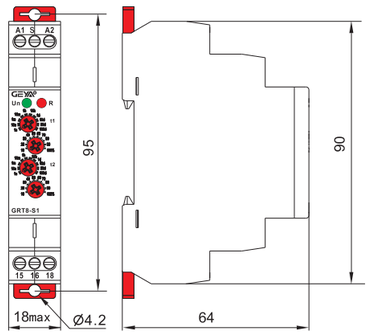
Cycler beginning with pulse



Cycler beginning with pause(jumper A1-S)



Dimensions(mm)



Pulse output time relay

Applications

-It is used to delay and generate a pulse, which is used to delay the connection of a load for a period of time.

Feature

-Separate delay time and pulse width setting can set different delay time.
-Time scale 0.1 s - 100 days.
-The delay time can be reset by shorting S-A1.
- With AC/DC 12V-240V ultra wide operating voltage specifications are optional.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

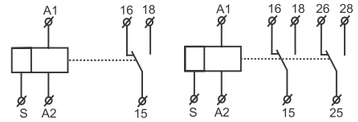
GRT8 – P □/□

- Rated control supply voltage
  - A230:AC230V
  - W240:AC/DC12V-240V
- Number of contacts
  - 1:1×SPDT
  - 2:2×SPDT
- Pulse output time relay
- GRT8 Series

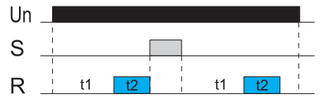
Technical parameters

		GRT8-P1	GRT8-P2
Function		Pulse output time relay	
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.7W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.6VA/1.3W	AC max.6VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Time ranges		0.1s-100days	
Time setting		potentionmeter	
Time deviation		10%-mechanical setting	
Repeat accuracy		0.2%-set value stability	
Temperature coefficient		0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output		1×SPDT	2×SPDT
Current rating		1×16A(AC1)	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℃ to +55℃（-4°F to 131°F）	
Storage temperature		-35℃ to +75℃（-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		1×SPDT:W240-62g,A230-61g	
		2×SPDT:W240-82g,A230-82g	
Standards		EN 61812-1,IEC60947-5-1	

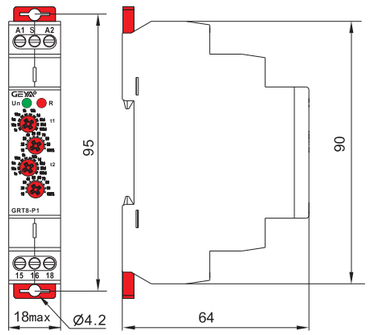
Wiring Diagram



Functions Diagram



Dimensions(mm)



Right-Left(inverser) time relay

Applications

-Right-Left(inverser) timer relay are used for 2 different loads,which works by turn. First load starts working,stops and waits(off) and second load starts working.Both working time is same.

Feature

-The default is right load first. You can select left load first by shorting S-A1
-Time scale 0.1 s - 100 days devided into 10 time ranges:
(0.1 s - 1 s / 1 s - 10 s / 0.1 min - 1 min / 1 min - 10 min / 0.1 hrs - 1 h / 1 hrs - 10 hrs / 0.1 day - 1 day /1 day - 10 days /3 days - 30 days / 10 days - 100 days).
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

GRT8 — RL /□

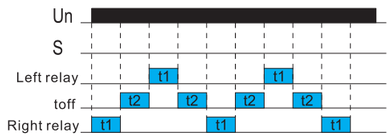
- Rated control supply voltage
  - A230:AC230V
  - W240:AC/DC12-240V
- Right-Left inverser time relay
- GRT8 Series

Technical parameters

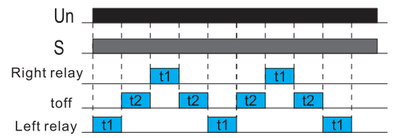
	GRT8-RL
Function	Right-Left inverser time relay
Supply terminals	A1-A2
Voltage range	AC/DC 12-240V(50-60Hz)
Burden	AC 0.7-3VA/DC 0.5-1.7W
Voltage range	AC 230V(50-60Hz)
Power input	AC max.12VA/1.3W AC max.12VA/1.9W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	0.1s-10days
Time setting	potentionmeter
Time deviation	5%-mechanical setting
Repeat accuracy	0.2%-set value stability
Temperature coecient	0.05%/℃,at=20℃(0.05%°F，at=68°F)
Output	2×SPDT
Current rating	16A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1×10^7
Electrical life(AC1)	1×10^6
Reset time	max.200ms
Operating temperature	-20℃ to +55℃ (-4°F to 131°F)
Storage temperature	-35℃ to +75℃ (-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	W240-82g,A230-82g
Standards	EN 61812-1,EN61010-1

Functions Diagram

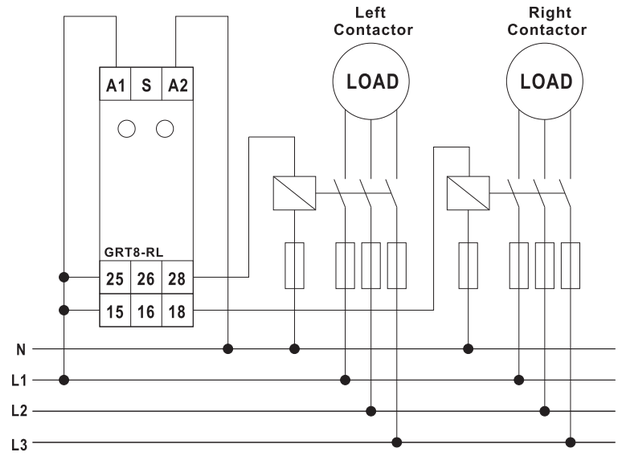
Right load first by disconnecting S-A1



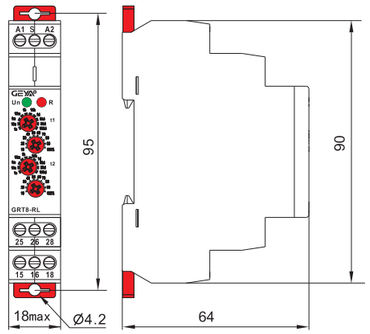
Left load first by connecting S-A1



Wiring Diagram



Dimensions(mm)



True Delay OFF without supply voltage

Applications

-Back-up source for Delay OFF in case of voltage failure (emergency lighting, emergency respirator,or protection of el. controlled doors - in case of fire).

Feature

-Time range (adjustable by rotary switch and fi ne setting by potentiometer): 0.1 s - 10 min.
-Voltage range: AC/DC12-240V , clamp terminals.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

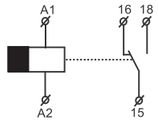
GRT8 – D / □

- GRT8 Series
- Delay OFF without supply power
- Rated control supply voltage:
  W240:AC/DC12V-240V

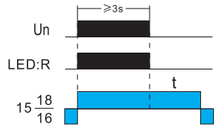
Technical parameters

	GRT8-D
Function	Delay OFF without supply power
Supply terminals	A1-A2
Voltage range	AC/DC 12-240V(50-60Hz)
Burden	AC 0.09-3VA/DC 0.05-1.5W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	0.1s-10min
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Mininum power time	3s
Temperature coefficient	0.05%/℃,at=20℃(0.05%℉，at=68℉)
Output	1×SPDT
Current rating	16A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1×10^6
Electrical life(AC1)	5×10^4
Reset time	max.200ms
Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)
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	66g
Standards	EN 61812-1,IEC60947-5-1

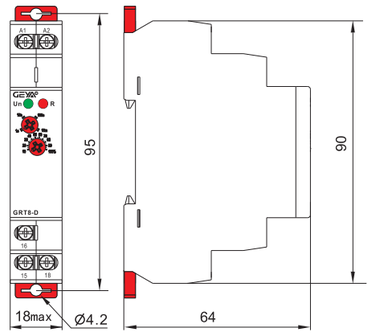
Wiring Diagram



Functions Diagram



Dimensions(mm)



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Star/Delta time relay

Applications

-Designated for delay ON of motors star/delta.

Feature

-Time t1 (star) :
time scale 0.1 s - 10min devided into 4 time ranges
rough time setting by rotary switch.
-Time t2 (delay) :
time scale 0.1 s - 1 s
time setting by potentiometer
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

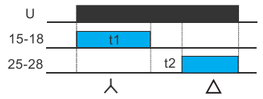
GRT8 – ST / □

- Rated control supply voltage
  A230:AC230V;
  A400:AC400V;
  W240:AC/DC12V-240V;
- Star/Delta time relay
- GRT8 Series

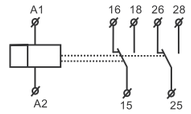
Technical parameters

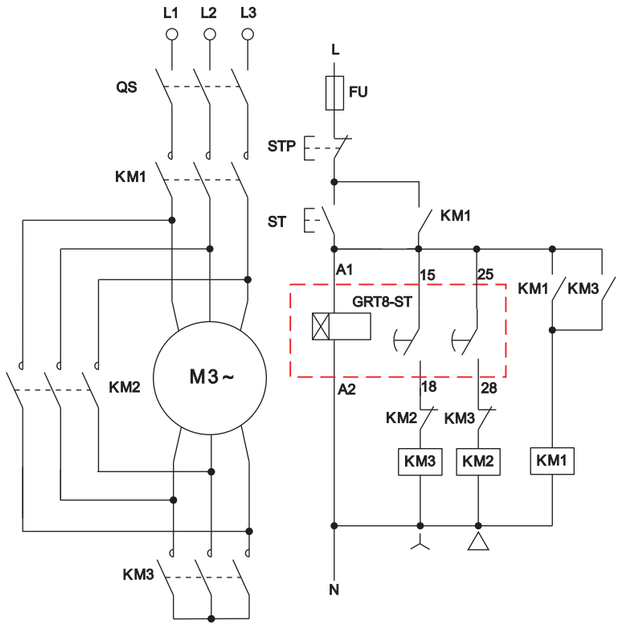
		GRT8-ST
Function		Star/Delta time relay
Supply terminals		A1-A2
Voltage range	W240	AC/DC 12-240V(50-60Hz)
Burden	W240	AC 0.3-2VA/DC 0.1-1.2W
Voltage range	A230 A400	AC 230V/AC400V(50-60Hz)
Power input	A230 A400	AC max.6VA/1.3W
Supply voltage tolerance		-15%;+10%
Supply indication		green LED
Time ranges		Range of time delay t1: 0.1 s - 10 min,Switch time t2: 0.1 s-1 s
Time setting		potentionmeter
Time deviation		10%-mechanical setting
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		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		W240-82g,A230-80g
Standards		EN 61812-1,IEC60947-5-1

Functions Diagram

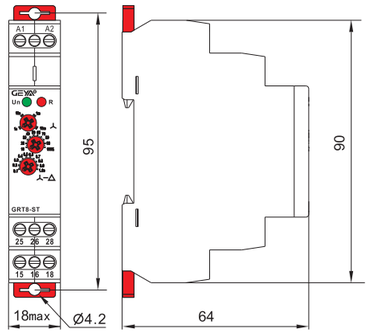


Wiring Diagram





Dimensions(mm)



Applications

-It is used for delayed switching of lights in the corridors, entrances, stairways, halls or for delayed finish of fans (WC, bathroom, etc.).

Feature

-Operating system switch:
ON - output is constantly ON .
AUTO - timing according to adjusting by potentiometer in range 0.5-20min
OFF - output is constantly OFF.
-Voltage range: AC 230 V, clamp terminals.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

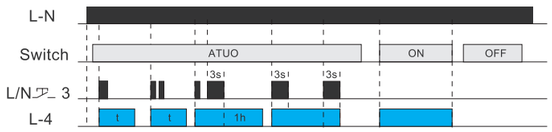
GRT8 —LS / □

- Rated control supply voltage
  A230:AC230V
- Stairase Switch
- GRT8 Series

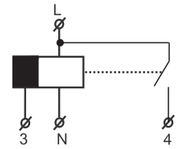
Technical parameters

	GRT8-LS
Function	delay off reacting to contact switching
Supply terminals	L-N
Voltage range	AC 230V(50-60Hz)
Power input	AC max.6VA/1.3W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	AUTO:0.5-20min ON OFF
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Mininum power time	200ms
Glow tubes connetions	Yes(N-3 or L-3)
Max.amount of glow lamps	230V,max.75pcs(Measured with glow lamp 0.68mA/230V AC)
Temperature coefficient	0.05%/℃,at=20℃(0.05%°F，at=68°F)
Output	1×SPST
Current rating	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℃ to +55℃ (-4°F to 131°F)
Storage temperature	-35℃ to +75℃ (-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	61g
Standards	EN61812-1,IEC 60669-2-3,IEC60947-5-1

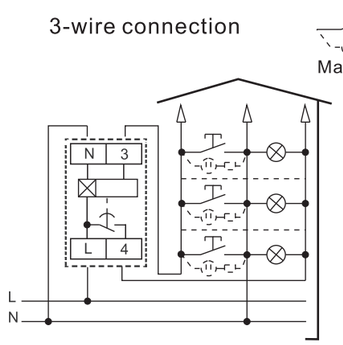
Functions Diagram



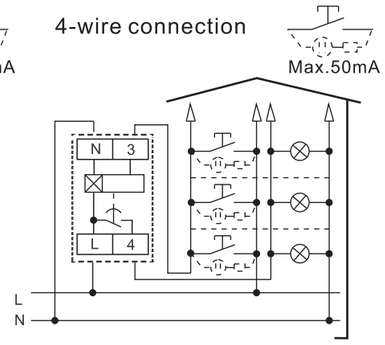
Wiring Diagram



3-wire connection



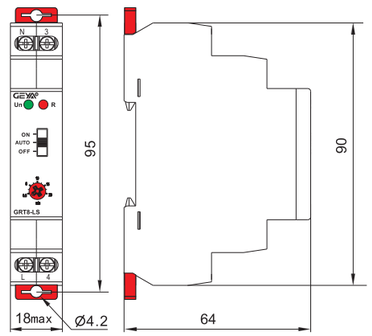
4-wire connection



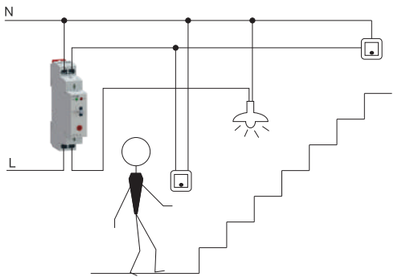
Types of lamps

2000W	2000W	1000W	900W(125uF)	400W	300W

Dimensions(mm)



Example



Staircase switch

Applications

-It is used for delayed switching of lights in the corridors, entrances, stairways, halls or for delayed finish of fans (WC, bathroom, etc.).

Feature

-10 functional modes
-It has zero crossing switching ability.
-Voltage range: AC 230 V, clamp terminals.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

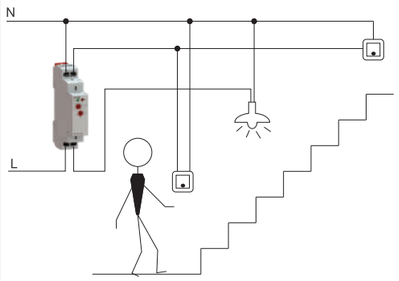
GRT8 —LM /□

- □ — Rated control supply voltage
  A230:AC230V
- LM — Stairase Switch
- GRT8 — GRT8 Series

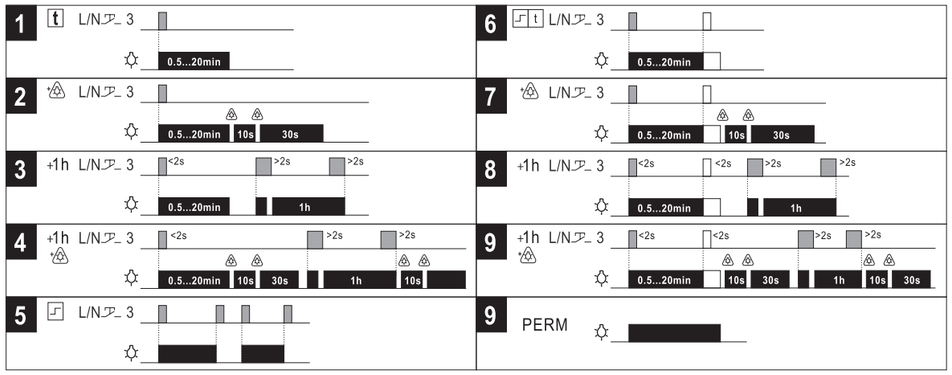
Technical parameters

	GRT8-LM
Function	delay off reacting to contact switching
Supply terminals	L-N
Voltage range	AC 230V(50-60Hz)
Power input	AC max.6VA/1.3W
Supply voltage tolerance	-15%;+10%
Supply indication	green LED
Time ranges	AUTO:0.5-20min ON OFF
Time setting	potentionmeter
Time deviation	10%-mechanical setting
Repeat accuracy	0.2%-set value stability
Mininum power time	200ms
Glow tubes connetions	Yes(N-3 or L-3)
Max.amount of glow lamps	230V,max.75pcs(Measured with glow lamp 0.68mA/230V AC)
Temperature coefficient	0.05%/℃,at=20℃(0.05%°F，at=68°F)
Output	1×SPST(zero crossing switching)
Current rating	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℃ to +55℃（-4°F to 131°F）
Storage temperature	-35℃ to +75℃（-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	65g
Standards	EN61812-1,IEC 60669-2-3,IEC60947-5-1

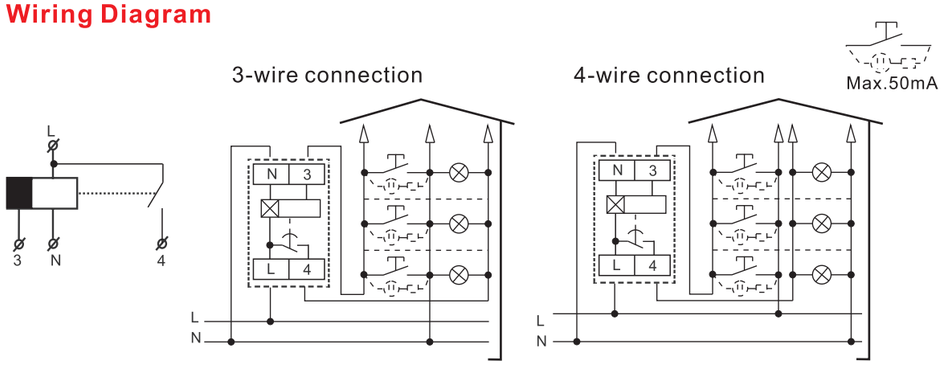
Example



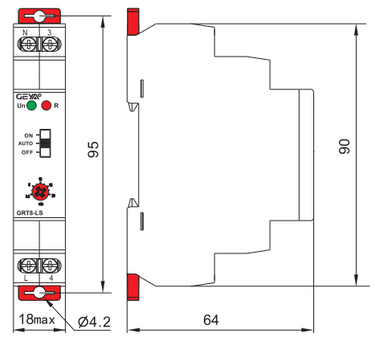
Functions Diagram



Wiring Diagram



Dimensions(mm)



Types of lamps

Incandescent	3600W
Halogen lamp	3600W
Fluorescent, corrected, in series	1000W
Fluorescent, corrected, in paralle	900W(125uF)
Compact fluorescent	400W
LED lamps(<2W)	55W
LED lamps(>2W)	600W

Bluetooth time control relay

Applications

-Bluetooth time control relay can be used for industrial equipment, lighting control, heating element control, motor and fan control, and regularly turn on and off loads.

Feature

-The relay is set through Bluetooth connection of mobile phone app, which is simple and easy to operate.
-8 / 16 group timing setting.
-It has two working modes: automatic and manual.
-It has AC / DC 24v-240v ultra wide working voltage.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

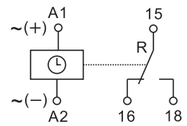
GRT8 –TS □/□

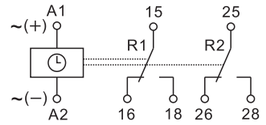
- Rated control supply voltage: W240:AC/DC24V-240V
- Number of contacts: 1:1×SPDT, 2:2×SPDT
- Bluetooth time control relay
- GRT8 Series

Technical parameters

	GRT8-TS1	GRT8-TS2
Function	Bluetooth time control relay	
Supply terminals	A1-A2	
Voltage range	AC/DC 24-240V 50Hz	
Burden	AC 0.09-3VA/DC 0.05-1.7W	
Supply voltage tolerance	-15%;+10%	
Supply indication	green LED	
Number of timers	8-ON/8-OFF	2×8-ON/2×8-OFF
Time setting	APP(Bluetooth connectivity)	
Time deviation	±2s/day	
Output	1×SPDT	2×SPDT
	16A/AC1	
Min.breaking capacity DC	500mW	
Output indication	red LED	
Mechanical life	1×10^7	
Electrical life(AC1)	1×10^5	
Operating temperature	-20℃ ~ +55℃	
Storage temperature	-35℃ ~ +75℃	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP20	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mm^2)	1×2.5mm^2 或 2×1.5mm^2 0.4N·m	
Dimensions	90mm×18mm×64mm	
Weight	W240-62g,A230-60g	W240-82g,A230-81g
Standards	GB/T14048.5,IEC60947-5-1,EN 61812-1	

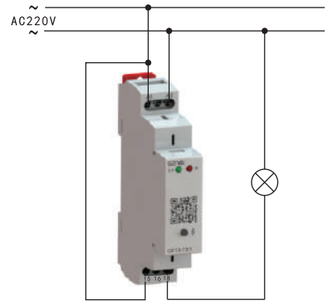
Wiring Diagram



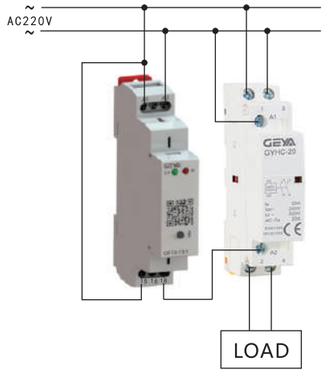


Example

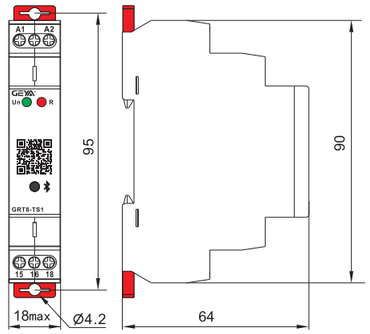
Load≤16A（AC-1）。



Load＞16A（AC-15）。



Dimensions(mm)



Monitoring voltage relay

Applications

-Protect electrical equipment and motors from over-voltage and under-voltage.
-Normal/emergency power supply switching.

Feature

-Controls its own supply voltage(True RMS measurement)
-.User may select operation mode through knob.
- Voltage measurement accuracy<1%.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRV8 — □ / □

- Rated control supply voltage

Rated supply voltage code	Rated supply voltage	Supply voltage limits	Range of adjustment
D12	DC 12V	DC 7...20V	DC 9...15V
AD48	AC/DC 24...48V	AC/DC 15...100V	AC/DC 20...80V
AD240	AC/DC 110...240V	AC/DC 50...270V	AC/DC 65...260V
A220	AC 220V	AC 160...270V	AC 180...260V

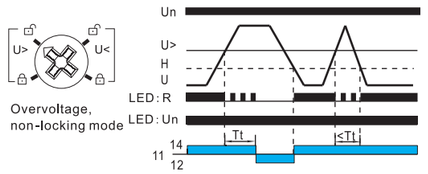
- Fuction mode
  - 01:Over/Under voltage
  - 02:Overvoltage and Undervoltage
- GRV8 Series

Technical parameters

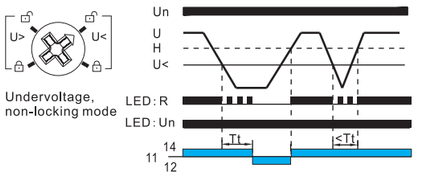
	GRV8-01	GRV8-02
Function	Monitoring voltage	
Supply terminals	A1-A2	
Rated supply voltage	DC12V,AC/DC24V-48V,AC/DC110V-240V,AC220V	
Rated supply frequency	45Hz-65Hz,0	
Hysteresis	5%-20%	3%fixed
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	⩽1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/℃,at=20℃(0.05%℉，at=68℉)	
Output	1×SPDT	
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	
Operating temperature	-20℃ to +55℃（-4℉ to 131℉）	
Storage temperature	-35℃ to +75℃（-22℉ to 158℉）	
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	59g	
Standards	EN 60255-1,IEC60947-5-1	

Functions Diagram

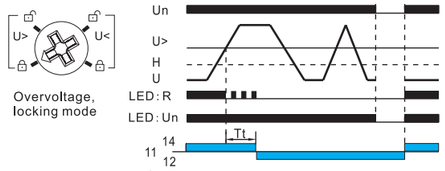
GRV8-01



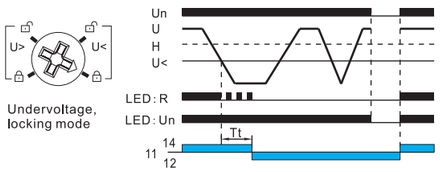
Overvoltage, non-locking mode



Undervoltage, non-locking mode

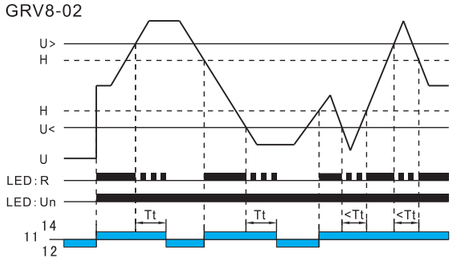


Overvoltage, locking mode



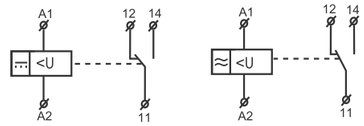
Undervoltage, locking mode

GRV8-02

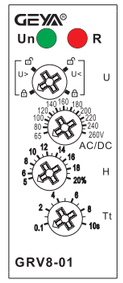


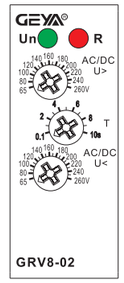
U> :Overvoltage threshold
U< :Undervoltage threshold
H :Hysteresis
U :Controlled signal
Tt :Delay on threshold crossing

Wiring Diagram

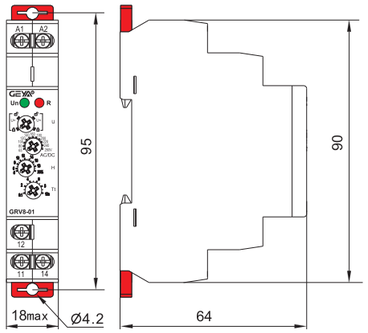


Panel Diagram





Dimensions(mm)



3-Phase voltage relay

Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Feature

-Controls its own supply voltage(True RMS measurement).
-Set 8-level rated operating voltage through knob.
- Measuring frequency range:45Hz-65Hz.
- Voltage measurement accuracy<1%.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRV8 —□/□

- Rated control supply voltage
  M460:220-230-240-380-400-415-440-460VAC(P-P)
  M265:127-132-138-220-230-240-254-265VAC(P-N)
- Fuction mode:Table1
- GRV8 Series

Table1

Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03	—	—	—	—	●	●
04	2%...20%	-20%...2%	—	0.1s...10s	●	●
05	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06	2%...20%	-20%...2%	5%...15%	2s	●	●
07	—	—	5%...15%	0.1s...10s	●	●
08	15%	-15%	8%	2s	●	●

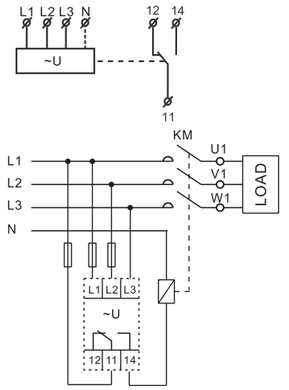
Note:●the function is available

Technical parameters

	M460	M265
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2	L1-N
Voltage range	220-230-240-380-400 -415-440-460(P-P)	127-132-138-220-230 -240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20%of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	⩽1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output	1×SPDT	
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	

Control Relay | GEYA

Wiring Diagram



Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)
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	64g
Standards	EN 60255-1,IEC60947-5-1

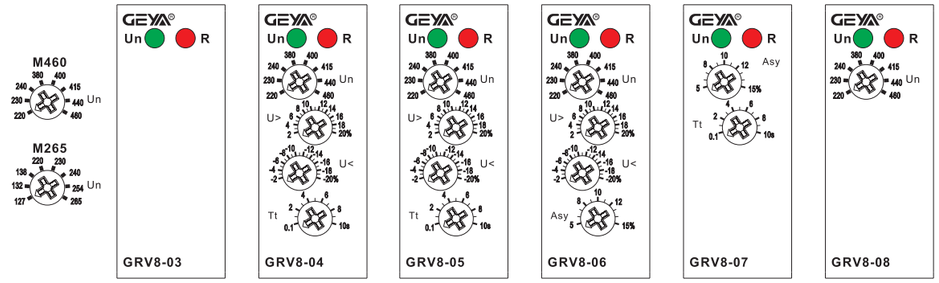
Note:

$$Asy=\frac{Umax-Umin}{Uavr}\times100\%$$

$$Uavr=\frac{U_1+U_2+U_3}{3}$$

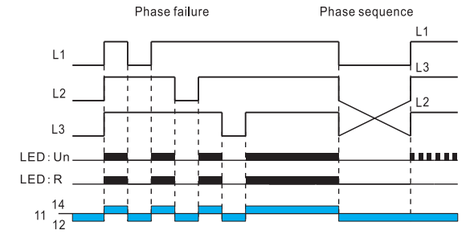
Umax=Max(U_1,U_2,U_3)
Umin=Min(U_1,U_2,U_3)

Panel Diagram

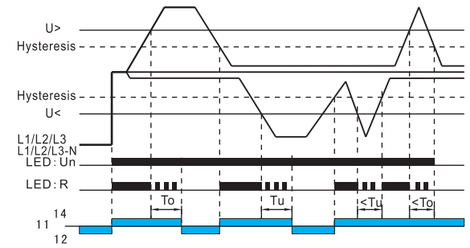


Functions Diagram

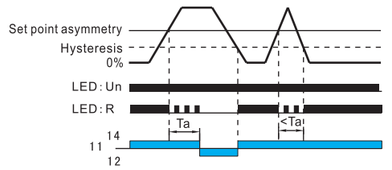
●Phase failure and phase equence function diagram



●Overvoltage and undervoltage function diagram

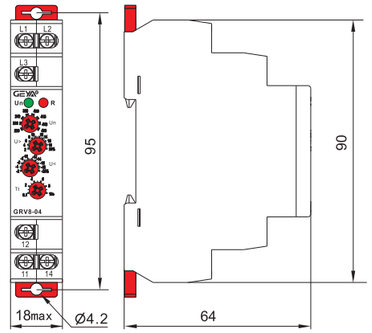


●Asymmetry function diagram



To:Overvoltage threshold tripping delay.
Tu:Undervoltage threshold tripping delay.
Ta:Asymmetry threshold tripping delay.

Dimensions(mm)



3-Phase voltage relay

Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Feature

-Controls its own supply voltage(True RMS measurement).
-Set 8-level rated operating voltage through knob.
- Measuring frequency range:45Hz-65Hz.
- Voltage measurement accuracy<1%.
-2 C/O output .
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRV8 −□/□

- Rated control supply voltage
  - M460:220-230-240-380-400-415-440-460VAC(P-P)
  - M265:127-132-138-220-230-240-254-265VAC(P-N)
- Fuction mode:Table1
- GRV8 Series

Table1

Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure
03D	—	—	—	—	●	●
04D	2%...20%	-20%...2%	—	0.1s...10s	●	●
05D	2%...20%	-20%...2%	8%	0.1s...10s	●	●
06D	2%...20%	-20%...2%	5%...15%	2s	●	●
07D	—	—	5%...15%	0.1s...10s	●	●
08D	15%	-15%	8%	2s	●	●

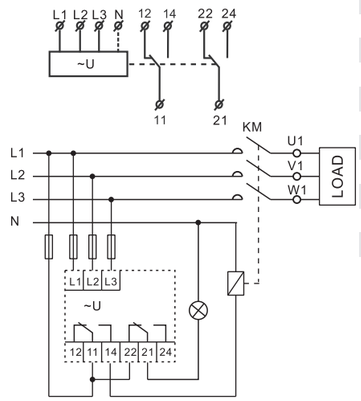
Note:●the function is available

Technical parameters

	M460	M265
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2	L1-N
Voltage range	220-230-240-380-400 -415-440-460(P-P)	127-132-138-220-230 -240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20%of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	≤1%	
Run up delay at power up	0.5s time delay	
Konb setting accuracy	10% of scale value	
Reset time	1000ms	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output	2×SPDT	
Current rating	8A/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	

Control Relay | GEYA

Wiring Diagram



Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)
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	72g
Standards	EN 60255-1,IEC60947-5-1

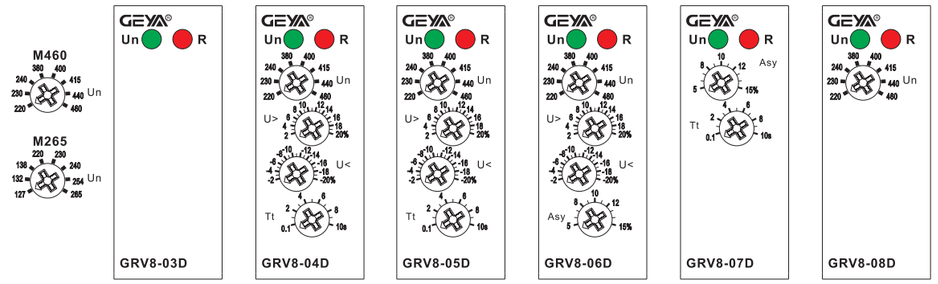
Note:

$$Asy=\frac{Umax-Umin}{Uavr}\times100\%$$

$$Uavr=\frac{U_1+U_2+U_3}{3}$$

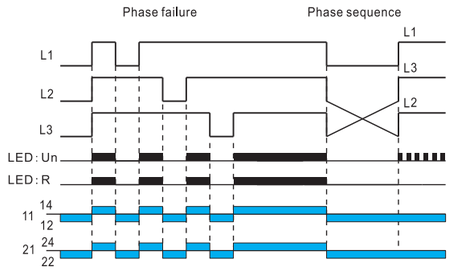
Umax=Max(U_1,U_2,U_3)
Umin=Min(U_1,U_2,U_3)

Panel Diagram

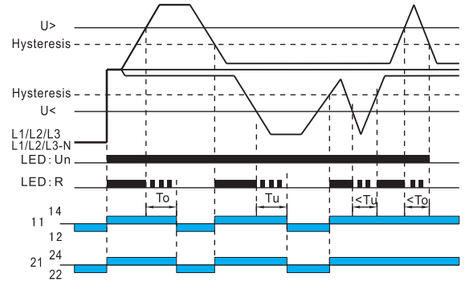


Functions Diagram

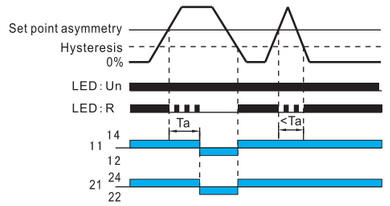
●Phase failure and phase equence function diagram



●Overvoltage and undervoltage function diagram

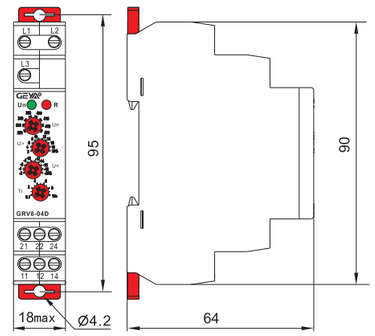


●Asymmetry function diagram

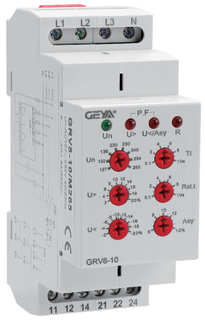


To:Overvoltage threshold tripping delay.
Tu:Undervoltage threshold tripping delay.
Ta:Asymmetry threshold tripping delay.

Dimensions(mm)



3-Phase voltage relay



Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Feature

-Controls its own supply voltage(True RMS measurement).
-Set 8-level rated operating voltage through knob.
-Set the reset delay time through the knob.
-2 C/O output .
-Measuring frequency range:45Hz-65Hz.
-Voltage measurement accuracy<1%.
-Relay status is indicated by LED.
-2-MODULE,DIN rail mounting.

Model and connotation

GRV8 –□/□

- Rated control supply voltage
  M460:220-230-240-380-400-415-440-460VAC(P-P)
  M265:127-132-138-220-230-240-254-265VAC(P-N)
- Fuction mode:Table1
- GRV8 Series

Table1

Function code	Over-voltage	Under-voltage	Asymmetry	Delay time	Phase sequence	Phase failure	Reset time
09			8%		●	●	
10	2%...20%	-20%...2%	5%...15%	0.1s...10s	●	●	0.1s...10s

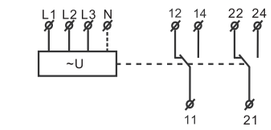
Note:●the function is available

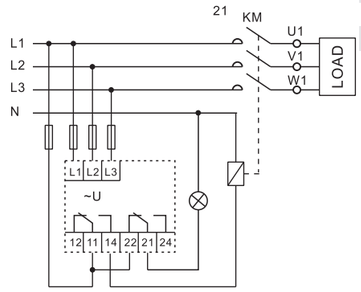
Technical parameters

	M460	M265
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3	L1-L2-L3-N
Supply terminals	L1-L2	L1-N
Voltage range	220-230-240-380-400 -415-440-460(P-P)	127-132-138-220-230 -240-254-265(P-N)
Rated supply frequency	45Hz-65Hz	
Measuring range	176V-552V	101V-318V
Threshold adjustment voltage	2%-20%of Un selected	
Adjustment of asymmetry threshold	5%-15%	
Hysteresis	2%	
Supply indication	green LED	
Time delay	Adjustable 0.1s-10s,10%	
Measurement error	⩽1%	
Run up delay at power up	Adjustable 0.1s-10s,10%	
Konb setting accuracy	10% of scale value	
Reset time	Adjustable 0.1s-10s,10%	
Temperature coefficient	0.05%/℃,at=20℃(0.05%℉，at=68℉)	
Output	2×SPDT	
Current rating	8A/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	

Control Relay | GEYA

Wiring Diagram





Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)
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	90×36×64mm
Weight	80g
Standards	EN 60255-1,IEC60947-5-1

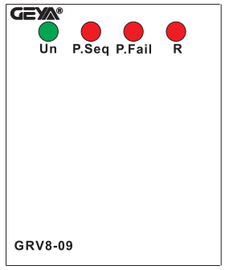
Note:

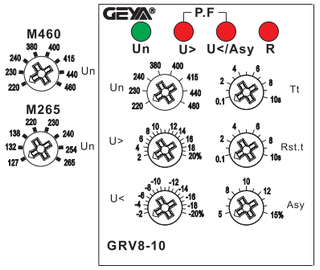
$$Asy=\frac{Umax-Umin}{Uavr}\times100\%$$

$$Uavr=\frac{U_1+U_2+U_3}{3}$$

Umax=Max(U_1,U_2,U_3)
Umin=Min(U_1,U_2,U_3)

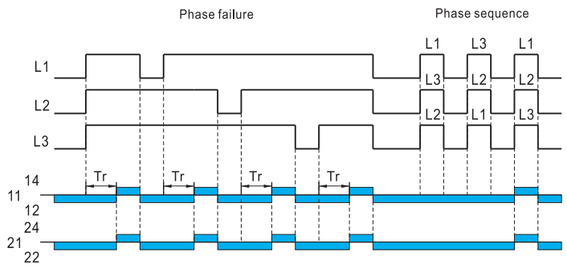
Panel Diagram



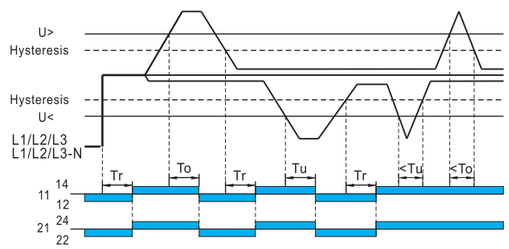


Functions Diagram

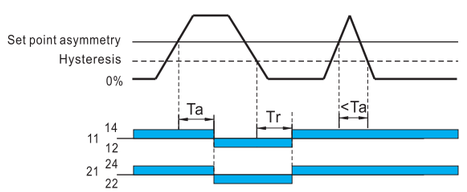
●Phase failure and phase equence function diagram



●Overvoltage and undervoltage function diagram

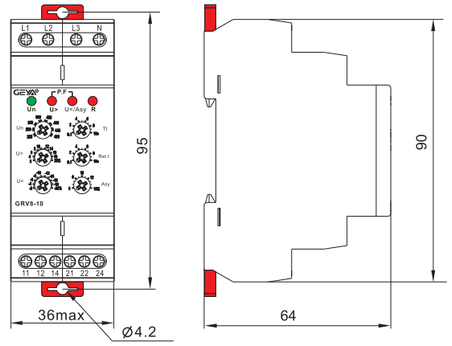


●Asymmetry function diagram



To:Overvoltage threshold tripping delay.
Tu:Undervoltage threshold tripping delay.
Ta:Asymmetry threshold tripping delay.
Tr:Power up delay

Dimensions(mm)



3-Phase display voltage relay

Applications

-Control for connection of moving equipment(site equipment,agricultural equipent,refrigerated trucks).
-Control for protection of persons and equipment against the consequences of reverse running.
-Normal/emergency power supply switching.
-Protection against the risk of a driving load(phase failure).

Feature

-Controls its own supply voltage(True RMS measurement).
-LCD display.
- Measuring frequency range:45Hz-65Hz.
- Voltage measurement accuracy<1%.
- 2-MODULE,DIN rail mounting.

Model and connotation

GRV8 — S □

- □: Monitoring voltage category
  N:phase to neutral
  P:phase to phase
- S: LCD display
- GRV8: GRV8 Series

Technical parameters

	GRV8-SN	GRV8-SP
Function	Monitoring 3-phase voltage	
Monitoring terminals	L1-L2-L3-N	L1-L2-L3
Supply voltage limits	70V-400V	130V-650V
Rated supply frequency	45Hz-65Hz	
Voltage hysteresis	2% Un	
Measuring range	80V-350V	150V-600V
Measurement error	≤1%	
Phase failure	50% Un	
Start-reset delay time	0.3-30s	
Temperature coefficient	0.05%/℃,at=20℃(0.05%℉，at=68℉)	
Output	2×SPDT	
Current rating	8A/AC1	
Switching voltage	250VAC/24VDC	
Min.breaking capacity DC	500mW	
Mechanical life	1×10^7	
Electrical life(AC1)	1×10^5	
Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)	
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)	
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	90×36×64mm	
Weight	90g	
Standards	EN 60255-1,IEC60947-5-1	

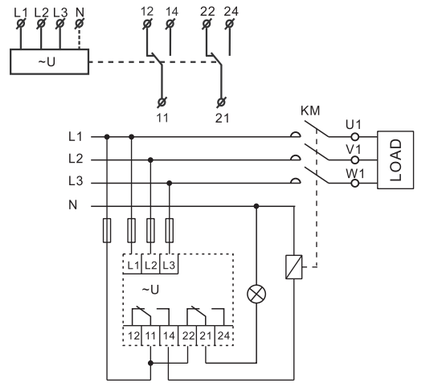
Note:

$$Asy=\frac{Umax-Umin}{Uavr}\times100\%$$

$$Uavr=\frac{U_1+U_2+U_3}{3}$$

Umax=Max(U_1,U_2,U_3)
Umin=Min(U_1,U_2,U_3)

Wiring Diagram

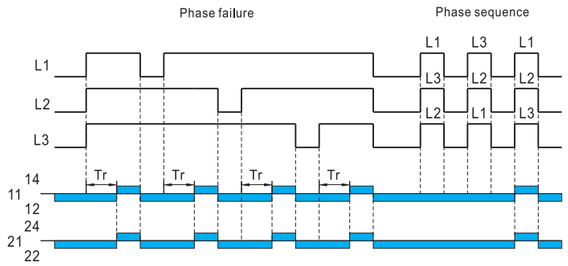


Parameters		Setting range	Step	Factory default	Remarks
Rated voltage(Un)		127-132-138-220-230-240-254-265(P-N)		220V	GRV8-SN
		220-230-240-380-400-415-440-460(P-P)		380V	GRV8-SP
Over voltage	Operation value	OFF-(Un+1)…350	1V	253V	GRV8-SN
		OFF-(Un+1)…600	1V	437V	GRV8-SP
	Delay time	0.1...20s	0.1s	2s	
Under voltage	Operation value	80…(Un-1)-OFF	1V	187V	GRV8-SN
		150…(Un-1)-OFF	1V	323V	GRV8-SP
	Delay time	0.1...20s	0.1s	2s	
Asymmetry	Operation value	OFF-5%...20%	1%	8%	
	Delay time	0.1...20s	0.1s	2s	
Phase sequence protection		ON-OFF		ON	
Start-reset delay time		0.3...30s	0.1s	0.3s	
Auto-reset		ON-OFF		ON	

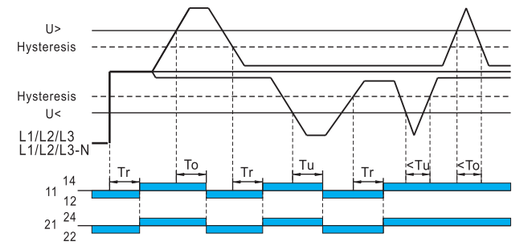
Note: "ON"means activating protection function,and"OFF"means inactivating protection function.

Functions Diagram

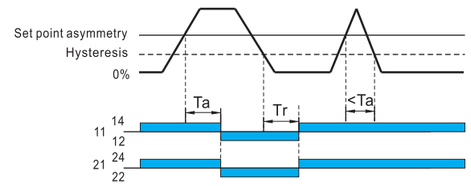
● Phase failure and phase equence function diagram



● Overvoltage and undervoltage function diagram

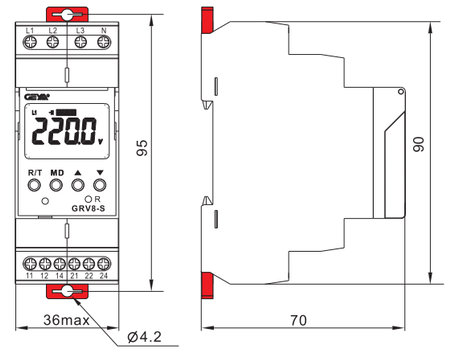


● Asymmetry function diagram



To:Overvoltage threshold tripping delay.
Tu:Undervoltage threshold tripping delay.
Ta:Asymmetry threshold tripping delay.
Tr:Power up delay

Dimensions(mm)



Current monitoring relay

Applications

-Serves for monitoring of heating in rail-switches, heating cables, consumption of one-phase motors, indicates current flow.

Feature

-Adjustable delay 0.1 - 10 s to eliminate short current peaks.
-Flexible adjustment by potentiometer, choice of 6 ranges:
AC 0.05-0.5A; AC 0.1-1A; AC 0.2-2A; AC 0.5-5A; AC 0.8-8A; AC 1.6-16A
-Power up delay.
-Possible to use for current scanning from current transformer.
-Universal supply AC/DC 24 - 240 V.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

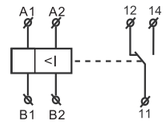
GRI8 —□/□

- Current range(AC)
  0.5:0.05-0.5A 1:0.1-1A 2:0.2-2A
  5:0.5-5A 8:0.8-8A 16:1.6-16A
- Design number
  01-Overcurrent
  02-Undercurrent
  03-Overcurrent or Undercurrent
  04-Over/Undercurrent in windows mode
- GRI8 Series

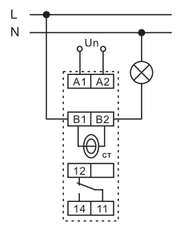
Technical parameters

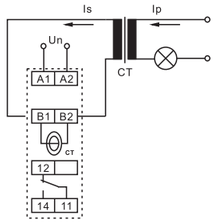
	GRI8-01	GRI8-02	GRI8-03	GRI8-04
Function	Over current	Under current	Over Under current	Over/Under current
Supply terminals	A1-A2			
Rated supply voltage	AC/DC 24V-240V			
Rated supply frequency	50/60Hz,0			
Burden	max 25VA			
Supply voltage tolerance	-15%;+10%			
Current range	0.05A-0.5A | 0.1A-1A | 0.2A-2A | 0.5A-5A | 0.8A-8A | 1.6A-16A			
Current frequency	AC 50Hz			
Max.operating current	1A | 2A | 5A | 8A | 12A | 22A			
Current adjustment	potentiometer			
Time delay	adjustable 0.1-10 s			
Power up delay	adjustable 0.1-10 s			
Supply indication	green LED			
Setting accuracy	10 %			
Repeat accuracy	<1 %			
Temperature dependancy	< 0.1 % /°C			
Limit values tolerance	5 % (10% for 0.05-0.5A range)			
Hysteresis	5 %			
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F，at=68°F)			
Output	1×SPDT			
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			
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.			

Wiring Diagram

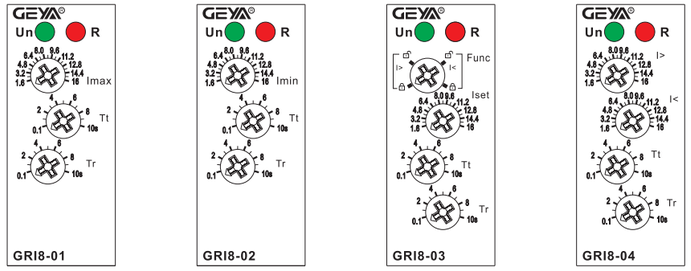


Pollution degree	2
Max.cable size(mm^2)	solid wire max.1×2.5or 2×1.5/with sleeve max.1×2.5(AWG 12)
Dimensions	90×18×64mm
Weight	62g
Standards	EN 60255-1



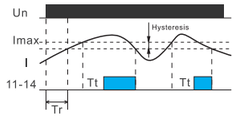


Panel Diagram

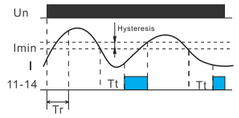


Functions Diagram

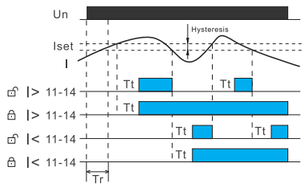
GRI8-01



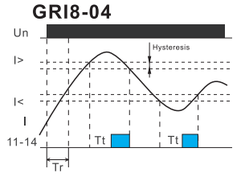
GRI8-02



GRI8-03

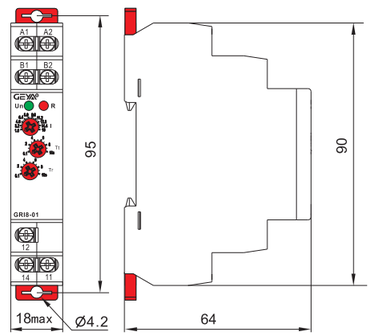


GRI8-04



Tr:Power up delay.
Tt:Tripping delay.

Dimensions(mm)



Current monitoring relay(straight-through)

Applications

-Serves for monitoring of heating in rail-switches, heating cables, consumption of one-phase motors, indicates current flow.

Feature

-Through center design, no need to disconnect the current circuit, through center installation is convenient to use.
-Over / under current monitoring mode can be set by jumper.
-With AC and DC universal testing specifications optional.
-Isolation current transformer is adopted, and external current transformer can be connected to expand the monitoring current range.
-Universal supply AC/DC 24 - 240 V.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

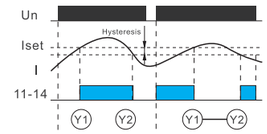
GRI8 – 05 □

- □ Monitoring current category
  - A:AC monitoring
  - B:AC/DC monitoring
- 05 Design number
- GRI8 GRI8 Series

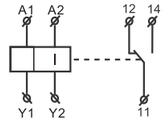
Technical parameters

	GRI8-05A	GRI8-05B
Function	AC measurement	AC/DC measurement
Supply terminals	A1-A2	
Rated supply voltage	AC/DC 24V-240V	
Rated supply frequency	50/60Hz,0	
Burden	max 25VA	
Supply voltage tolerance	-15%;+10%	
Current range	2A-20A	2A-20A
Current frequency	AC 50Hz	AC 50Hz ,DC
Setting accuracy	potentiometer	
Supply indication	green LED	
Setting accuracy	10 %	
Hysteresis	5 %	
Output	1×SPDT	
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	
Operating temperature	-20℃ ~+55℃	
Storage temperature	-35℃~+75℃	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP20	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mm^2)	1×2.5mm^2 或 2×1.5mm^2 0.4N·m	
Dimensions	90mm×18mm×64mm	
Weight	64g	
Standards	EN 60255-1	

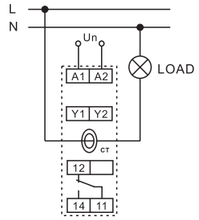
Functions Diagram



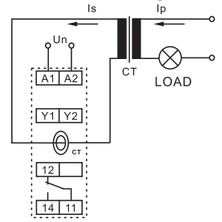
Wiring Diagram



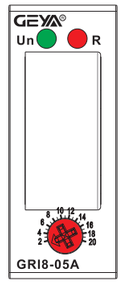
Monitored current≤20A

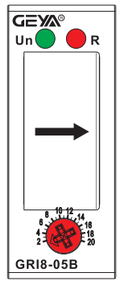


Monitored current > 20A, Through CT transformation



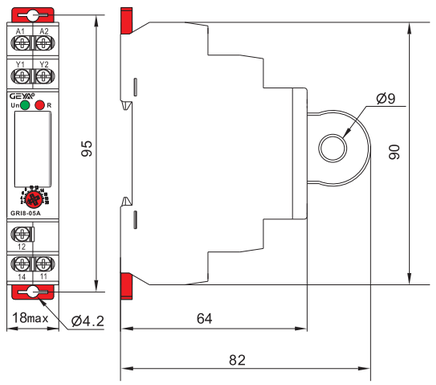
Panel Diagram



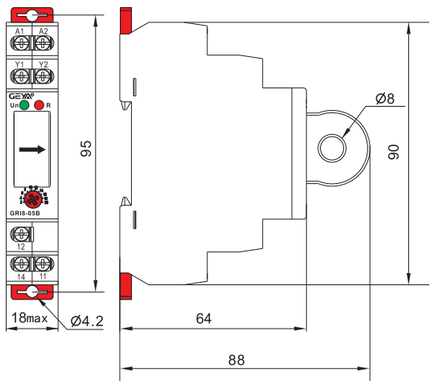


Dimensions(mm)

GRT8-05A



GRT8-05B



Current monitoring relay(straight-through)

Applications

-Serves for monitoring of heating in rail-switches, heating cables, consumption of one-phase motors, indicates current flow.

Feature

-Through center design, no need to disconnect the current circuit, through center installation is convenient to use.
-Over / under current monitoring mode can be set by knob.
-With AC and DC universal testing specifications optional.
-Isolation current transformer is adopted, and external current transformer can be connected to expand the monitoring current range.
-2 C/O output .
-Universal supply AC/DC 24 - 240 V.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

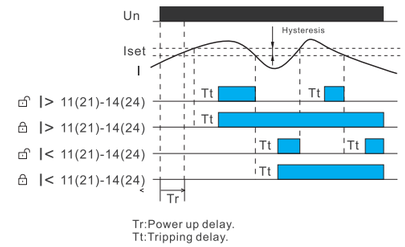
GRI8 – 06 □

- Monitoring current category
  - A:AC monitoring
  - B:AC/DC monitoring
- Design number
- GRI8 Series

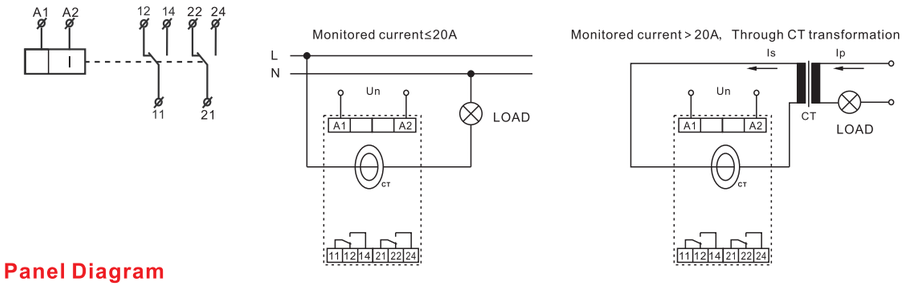
Technical parameters

	GRI8-06A	GRI8-06B
Function	AC measurement	AC/DC measurement
Supply terminals	A1-A2	
Rated supply voltage	AC/DC 24V-240V	
Rated supply frequency	50/60Hz,0	
Burden	max 25VA	
Supply voltage tolerance	-15%;+10%	
Current range	2A-20A	2A-20A
Current frequency	AC 50Hz	AC 50Hz ,DC
Setting accuracy	potentiometer	
Supply indication	green LED	
Setting accuracy	10 %	
Hysteresis	5 %	
Output	2×SPDT	
Current rating	8A/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	
Operating temperature	-20°C ~+55°C	
Storage temperature	-35°C~+75°C	
Mounting/DIN rail	Din rail EN/IEC 60715	
Protection degree	IP20	
Operating position	any	
Overvoltage cathegory	III.	
Pollution degree	2	
Max.cable size(mm^2)	1×2.5mm^2 或 2×1.5mm^2 0.4N·m	
Dimensions	90mm×36mm×64mm	
Weight	90g	
Standards	EN 60255-1	

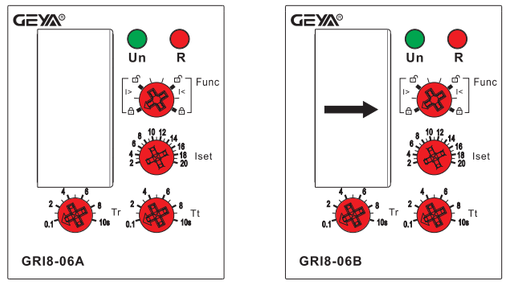
Functions Diagram



Wiring Diagram

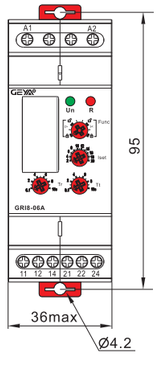


Panel Diagram

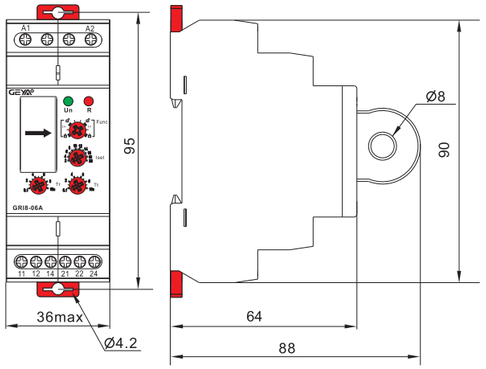


Dimensions(mm)

GRT8-06A



GRT8-06B



Level control relay

Applications

-Designed for monitoring level in wellss, basins, reservoirs, tanks.....

Feature

-In one device you can choose the following configurations:
  - 2 level control mode
  - 1 level control mode
-Choice of function PUMP UP, PUMP DOWN.
-Adjustable time delay on the output (0.1 - 10s).
-Sensitivity adjustable by a potentiometer (5-100kΩ).
-Galvanically separated supply voltage AC/DC 24-240V.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

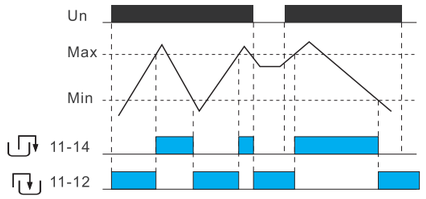
GRL8 – □
- □: Function mode
  - 01: 2Level contorl mode
  - 02: 2 or 1 Level contorl mode
- GRL8: GRL8 Series

Technical parameters

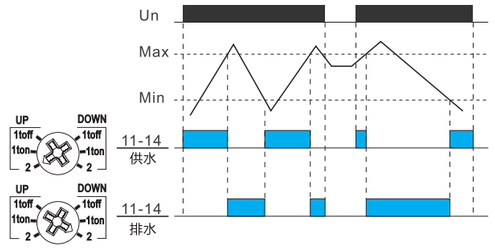
	GRL8-01	GRL8-02
Function	2 level contorl mode	2 or 1 level contorl mode
Supply terminals	A1-A2	
Voltage range	AC/DC 24-240V(50-60Hz)	
Input	max.2VA	
Supply voltage tolerance	-15%;+10%	
Sensitivity (input resistance)	adjustable in range 5 kΩ -100 kΩ	
Voltage in electrodes	max. AC 5 V	
Current in probe	AC <0.1 mA	
Time response	max. 400 ms	
Max. capacity length	800 m (sensitivity 25kΩ), 200 m (sensitivity 100 kΩ)	
Max. capacity of probe cable	400 nF (sensitivity 25kΩ), 100 nF (sensitivity 100 kΩ)	
Time delay (t)	adjustable, 0.1 -10 s	
Accuracy in setting (mechanical)	± 10 %	
Temperature coefficient	0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output	1×SPDT	
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°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	61g	81g
Standards	EN 60255-1	

Functions Diagram

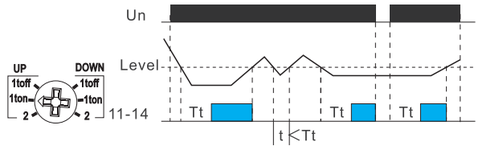
GRL8-01 2 level control



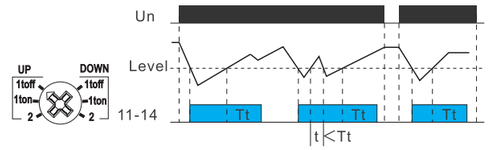
GRL8-02 2 level control(pump up/down)



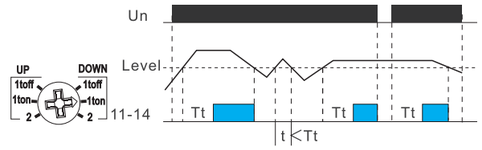
GRL8-02 1 level control(pump up t on)



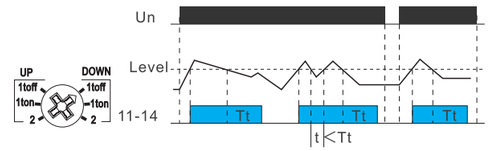
GRL8-02 1 level control(pump up t off)



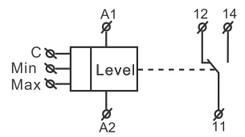
GRL8-02 1 level control(pump down t on)



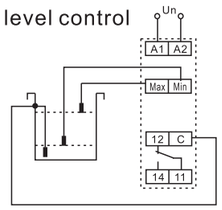
GRL8-02 1 level control(pump down t off)



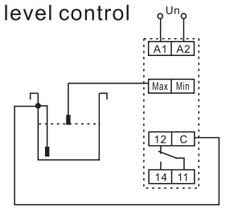
Wiring Diagram



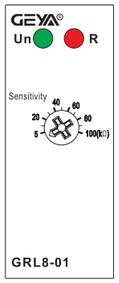
2 level control

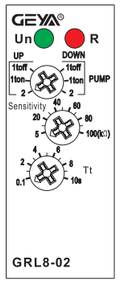


1 level control

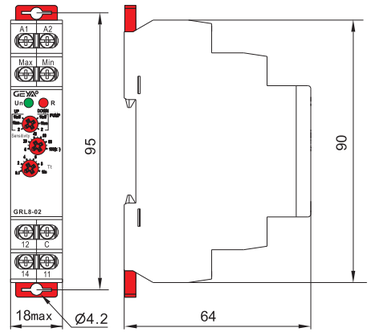


Panel Diagram





Dimensions(mm)



Twilight switch

PLS-01R-0.2m

PLS-02R-0.2m

Applications

-Used for switching street illumination and garden lights, illumination of advertisements, shop windows, etc.

Feature

-Serves to control lights on the basis of ambient light intensity.
-Level of ambient intensity is monitored by an external sensor and output is switched according to set level on the device.
-Control input for additional control.
-Universal supply AC 110V- 240 V.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

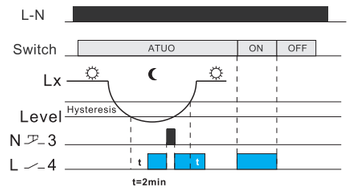
Model and connotation

GRB8 −01 / □
- □: Sensor type
  - A: PLS-01R-0.2m
  - B: PLS-02R-0.2m
- 01: Design number
- GRB8: GRB8 Series

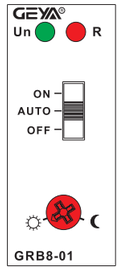
Technical parameters

	GRB8-01
Function	Twilight switch
Supply terminals	L-N
Rated supply voltage	AC 110V-240V
Rated supply frequency	50/60Hz
Burden	max 2VA
Supply voltage tolerance	-15%;+10%
Illumination rang	1-100Lx
Function	ON-AUTO-OFF
Supply indication	green LED
Tolerance sensor	±35%
Delay time	2min
Sensor cable length	max. 50 m (standard wire)
Output	1×SPST
Current rating	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
Operating temperature	-20℃ to +55℃ (-4°F to 131°F)
Storage temperature	-35℃ to +75℃ (-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	62g
Standards	EN 60255-1

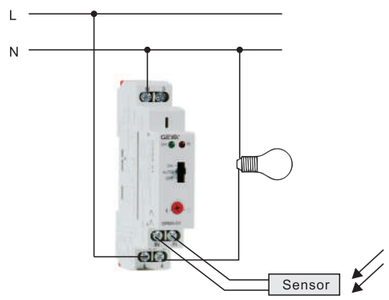
Functions Diagram



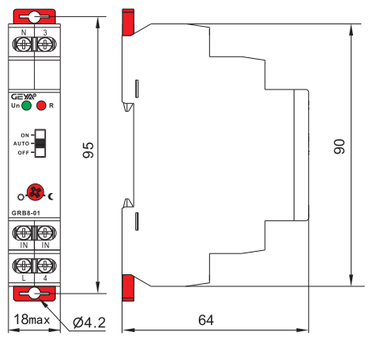
Panel Diagram



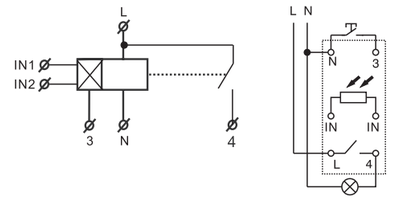
Example



Dimensions(mm)

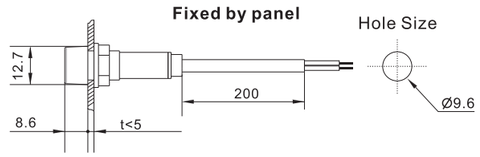


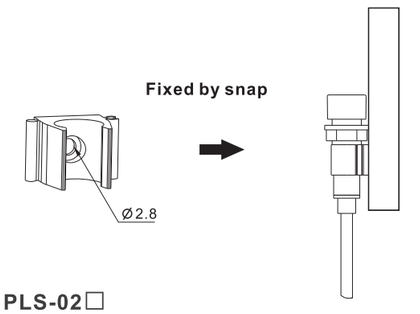
Wiring Diagram



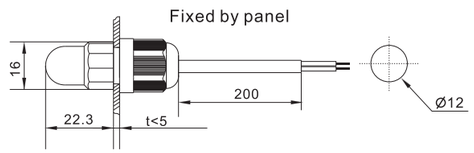
Sensor

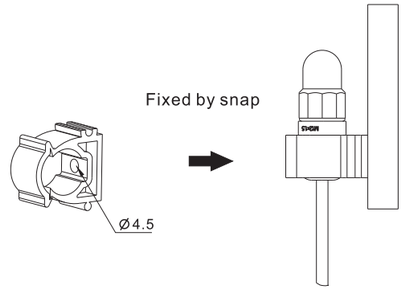
PLS-01□





PLS-02□





Twilight switch

PLS-01D-0.2m

PLS-02D-0.2m

Applications

-Used for switching street illumination and garden lights, illumination of advertisements, shop windows, etc.

Feature

-Serves to control lights on the basis of ambient light intensity.
-Level of ambient intensity is monitored by an external sensor and output is switched according to set level on the device.
-Two light intensity ranges can be set.
-It has zero crossing switching ability.
-Universal supply AC 110V- 240 V.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

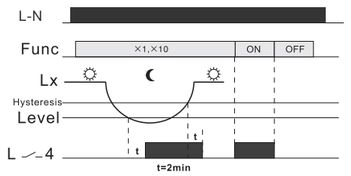
Model and connotation

GRB8 −02 / □
- Sensor type
  - A: PLS-01D-0.2m
  - B: PLS-02D-0.2m
- Design number
- GRB8 Series

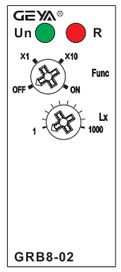
Technical parameters

	GRB8-02
Function	Twilight switch
Supply terminals	L-N
Rated supply voltage	AC 110V-240V
Rated supply frequency	50/60Hz
Burden	max 2VA
Supply voltage tolerance	-15%;+10%
Illumination rang	1-1000Lx,10-10000Lx
Function	ON-x1-x10-OFF
Supply indication	green LED
Tolerance sensor	±35%
Delay time	2min
Output	1×SPST
Current rating	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
Operating temperature	-20℃ to +55℃（-4°F to 131°F）
Storage temperature	-35℃ to +75℃（-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	65g
Standards	EN 60255-1

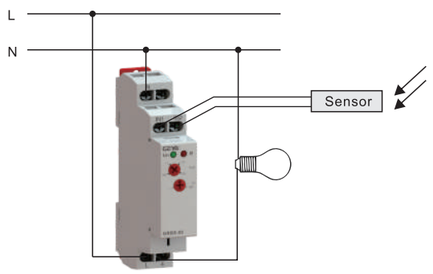
Functions Diagram



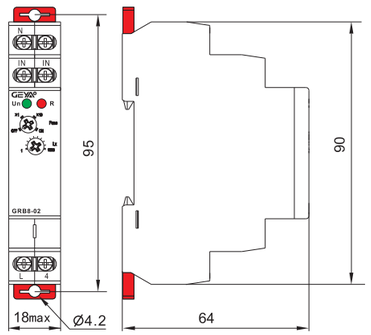
Panel Diagram



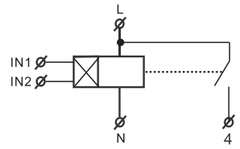
Example

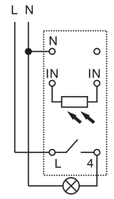


Dimensions(mm)



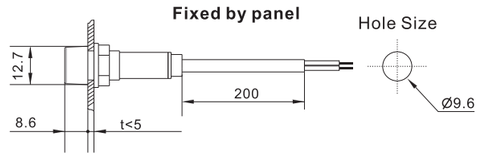
Wiring Diagram

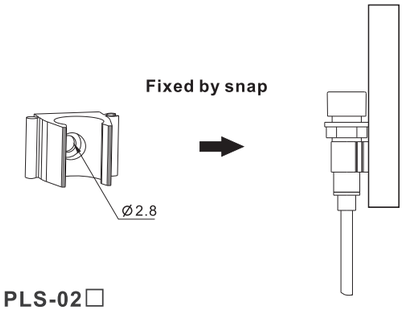




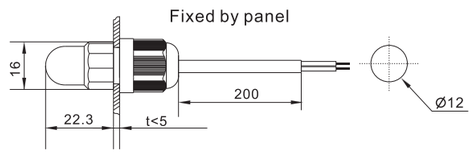
Sensor

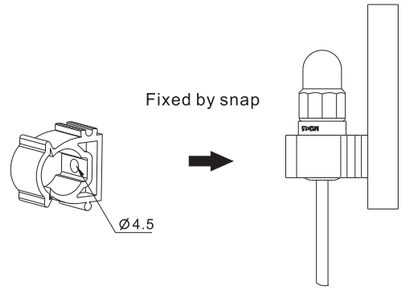
PLS-01□





PLS-02□





Temperature control relay

Applications

-Can be used for monitoring temperature e.g. in switchboards, heating systems, cooling systems, liquids, radiators, motors,devices, open spaces, etc..

Feature

-Function of short-circuit or sensor disconnection monitoring.
-Possibility to set function “heating”/”cooling”.
-It is possible to place sensor directly on terminal block – for temperature monitoring in a switchboard or in its surroundings
-Universal supply AC/DC 24V- 240 V.
-Relay status is indicated by LED.
-1-MODULE,DIN rail mounting.

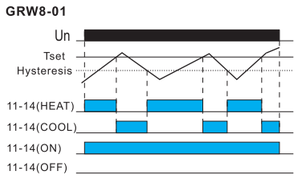
Model and connotation

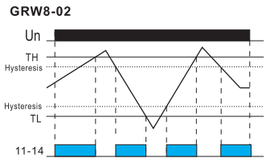
GRW8 – □
- Design number
  - 01: Temperature control
  - 02: Temperature range control
- GRW8 Series

Technical parameters

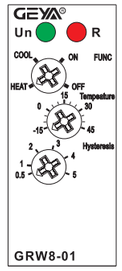
	GRW8-01	GRW8-02
Function	Temperature control	Temperature range control
Supply terminals	A1-A2	
Rated supply voltage	AC/DC 24V-240V	
Rated supply frequency	50/60Hz	
Burden	max 2VA	
Supply voltage tolerance	-15%;+10%	
Temperature range	-15℃ to +45℃	
Hysteresis	0.5℃ to 5℃	
Supply indication	green LED	
Measurement accuracy	±2℃	
Output	1×SPST	
Current rating	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	
Operating temperature	-20℃ to +55℃（-4°F to 131°F）	
Storage temperature	-35℃ to +75℃（-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	62g	
Standards	EN 60255-1	

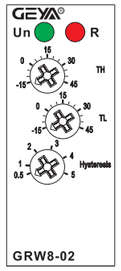
Functions Diagram



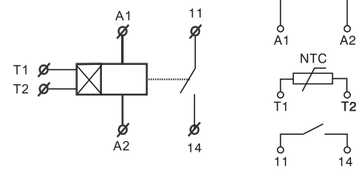


Panel Diagram

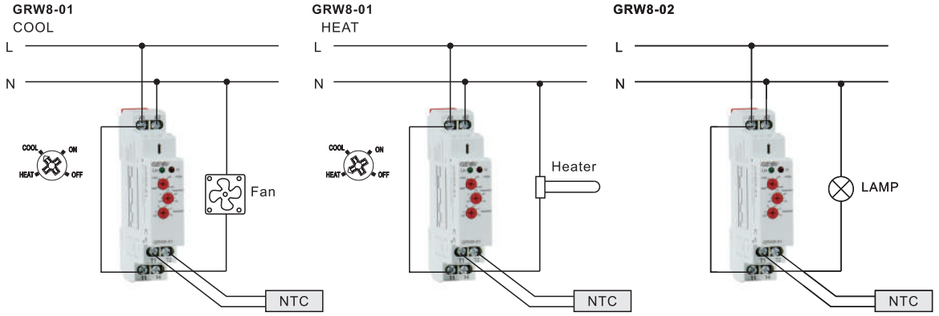




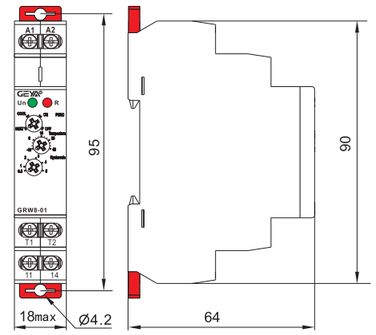
Wiring Diagram

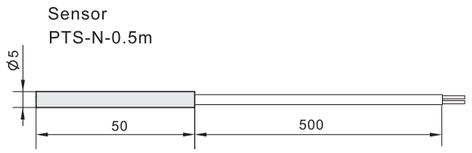


Example



Dimensions(mm)





Memory&Latching relay

Applications

-latching relay, controlled by buttons from several loacations can replace three way switches or cross bar switchs thanks to control by buttons(un-limited number,connected inparallel by 2 wires),installation gets more transparent and faster for mounting.

Feature

-Voltage range: AC 230 V,AC/DC12V-240V clamp terminals.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GRM8 – 01 / □

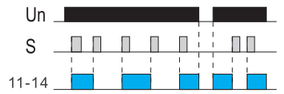
- Rated control supply voltage:
  - A230:AC230V
  - W240:AC/DC12V-240V
- Number of contacts
  - 1:1×SPDT
  - 2:2×SPDT
- GRM8 series

Technical parameters

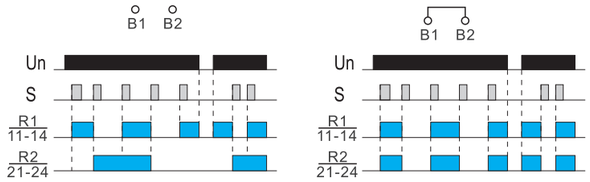
		GRM8-01	GRM8-02
Supply terminals		A1-A2	
Voltage range	W240	AC/DC 12-240V(50-60Hz)	
Burden	W240	AC 0.09-3VA/DC 0.05-1.2W	
Voltage range	A230	AC 230V(50-60Hz)	
Power input	A230	AC max.12VA/1.3W	AC max.12VA/1.9W
Supply voltage tolerance		-15%;+10%	
Supply indication		green LED	
Control terminals		A1-S	
Glow tubes connetions		Voltage range: AC 230V Yes(A1-S)	
Max.amount of glow lamps		230V,max.75 pcs(Measured with glow lamp 0.68mA/230V AC)	
Impulse length		min.25ms	
Temperature coefficient		0.05%/°C,at=20°C(0.05%°F，at=68°F)	
Output		1×SPDT	2×SPDT
Current rating		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		1×SPDT:W240-58g,A230-57g	
		2×SPDT:W240-79g,A230-77g	
Standards		EN 61810-1	

Functions Diagram

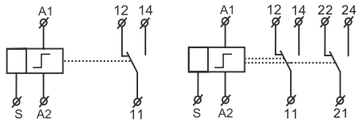
GRM8-01

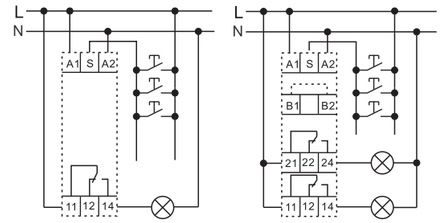


GRM8-02

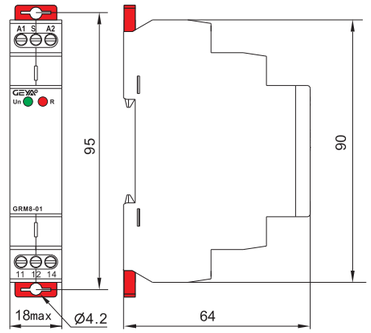


Wiring Diagram



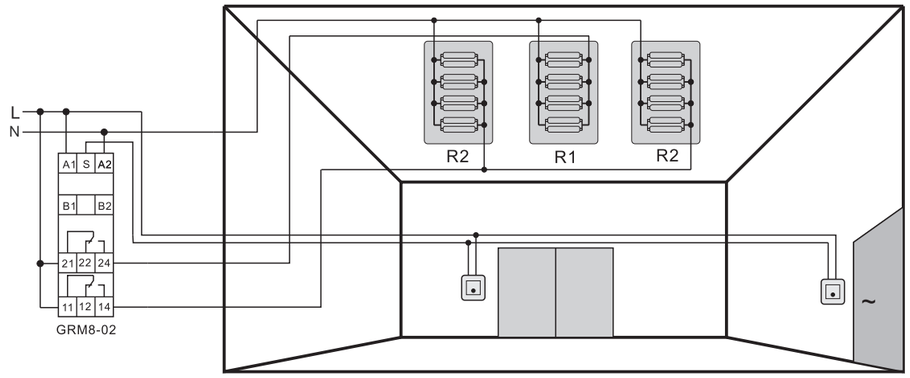


Dimensions(mm)



Example

Example of lighting system which allows control of light intensity by actuating one of the sections R1 and R2 from any location in the room.



Intermediate relay

Applications

-intermediate relay used for switching larger load output, strengthen or multiplying contacts of the existing device.

Feature

-Voltage range: AC/DC12V,24V,48V,110V,AC230V.
-relays GR8-316 enable connection to a 3-phase circuit.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GR8 – □ / □

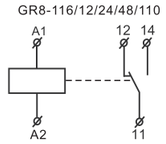
- Rated control supply voltage
  - 12:AC/DC 12V
  - 24:AC/DC 24V
  - 48:AC/DC 48V
  - 110:AC/DC 110V
  - 230:AC230V
- Number of contacts
  - 116:1×SPDT 16A
  - 208:2×SPDT 8A
  - 308:3×SPDT 8A
  - 316:3×SPDT 16A
- GR8 Series

Technical parameters

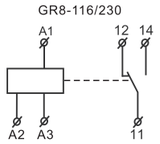
	GR8-116	GR8-208	GR8-308	GR8-316
Supply terminals	A1-A2			A1-A2
Voltage range	AC/DC 12V、24V、48V、110V			AC/DC 12V、24V
Burden	AC.max 12VA/DC.max1.9W			
Supply terminals	A1-A2-A3			A1-A2
Voltage range	AC230V(A1-A2),AC/DC24V(A1-A3)			AC230V
Burden	AC.max 12VA/DC.max1.9W			AC.max 6VA
Supply voltage tolerance	-15%;+10%			
Max.chargeover time	40ms			
Output				
Number of contact	1×SPDT	2×SPDT	3×SPDT	3×SPDT
Current rating	16A/AC1	8A/AC1		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℃ to +55℃ (-4°F to 131°F)			
Storage temperature	-35℃ to +75℃ (-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	44g/54g	50g/60g	72g/82g	86g/96g

Wiring Diagram

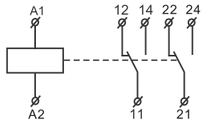
GR8-116/12/24/48/110



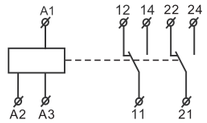
GR8-116/230



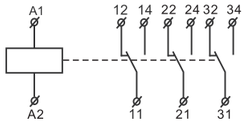
GR8-208/12/24/48/110



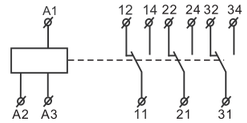
GR8-208/230



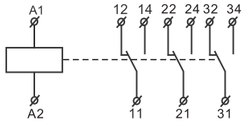
GR8-308/12/24/48/110



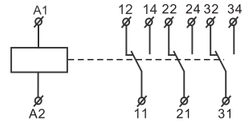
GR8-308/230



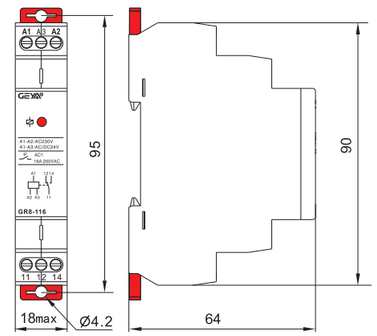
GR8-316/12/24



GR8-316/230



Dimensions(mm)



Voltage portector

Applications

-Overvoltage and undervoltage protection for household equipment.

Feature

-Supply voltage measurement and protection.
- Double bus wiring design stronger ability.
-Self reset after fault.
- Relay status is indicated by LED.
- 1-MODULE,DIN rail mounting.

Model and connotation

GPV8 – □□

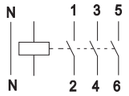
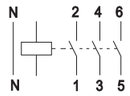
- □□ — Incoming line mode
  - U:upper incoming line
  - D:lower incoming line
- □□ — Rated operational current:
  - 32A、40A、50A、63A (AC1)
- GPV8 — GPV8 Series

Note:4P products such as the need to phase protection function can be customized.

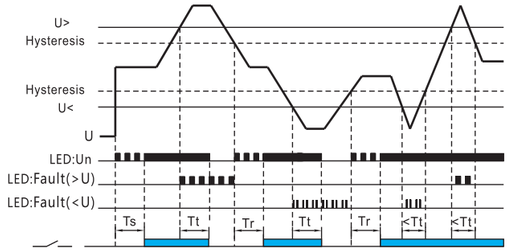
Technical parameters

	2P	4P
Rated supply voltage	AC220V	AC220V(L-N)
Rated supply frequency	50/60Hz	
Rated operational current	32A、40A、50A、63A (AC1)	
Burden	AC max.3VA	
Over voltage operation value	265V	265V(L-N)
Over voltage reset value	257V	257V(L-N)
Under voltage operation value	175V	175V(L-N)
Under voltage reset value	180V	180V(L-N)
Action delay time	1s	
Power-up delay	2s	
Reset time	30s	
Measurement error	≤1%	
Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)	
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)	
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	
Dimensions	82×36×68mm	82×72×68mm
Weight	120g	250g

Wiring Diagram

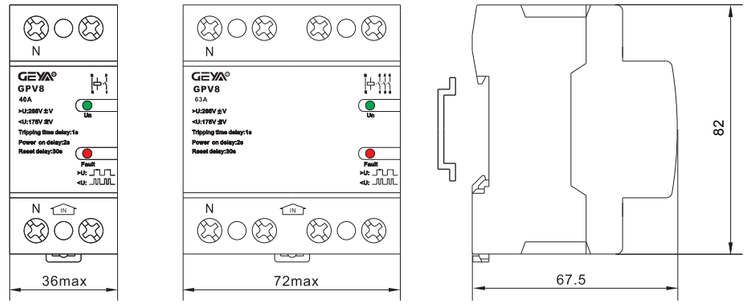
2P		4P	
GPV8-63U	GPV8-63D	GPV8-63U	GPV8-63D
			

Functions Diagram

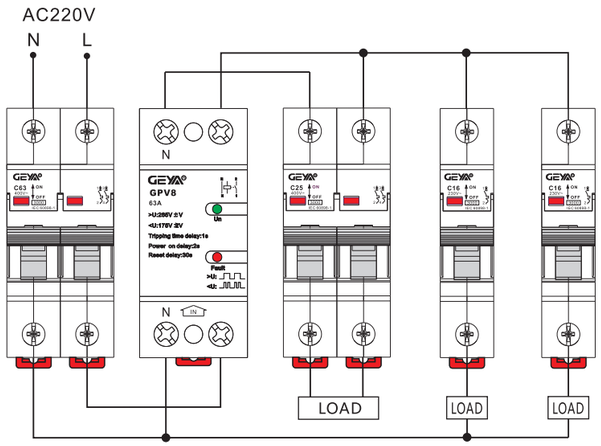


Ts：Power-up delay
Tt：Action delay time
Tr：Reset delay time

Dimensions(mm)



Example



Voltage / current portector

Applications

-Overvoltage ,undervoltage and overcurrent protection for household equipment.

Feature

-Voltage / current monitoring and protection.
-Double bus wiring design stronger ability.
-Over / under voltage value and over-current value can be set.
-Self reset after fault.
-Digital display voltage, current value, fault status can be displayed by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

GPS8 – □□

- Incoming line mode
  - U:upper incoming line
  - D:lower incoming line
- Design number
  - 01:Over and under voltage protection
  - 02:Over voltage, under voltage and over current protection
- GPS8 Series

Technical parameters

	GPS8-01	GPS8-02
Function	Over and under voltage	Over voltage, under voltage and over current
Rated supply voltage	AC220V(L-N)	
Rated supply frequency	50/60Hz	
Rated operational current	32A,40A,50A,63A,80A (AC1)	
Burden	AC max.3VA	
Voltage display	√	√
Current display	×	√
Over voltage operation value	230V~300V(factory default: 275V)	
Over voltage action delay	0.5s	
Under voltage operation value	145V~210V(factory default: 175V)	
Under voltage action delay	0.5s	
Over current operation value	———	32A,40A,50A,63A,80A
Over current action delay		5s
Power-up delay	2s	
Reset time	2~900s(factory default:30s)	
Measurement error	≤1%	
Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)	
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)	
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	
Dimensions	82×36×68mm	
Weight	130g	135g

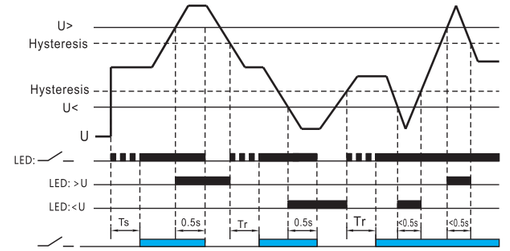
Wiring Diagram

GPS8-□U

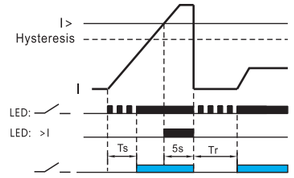
GPS8-□D

Functions Diagram

GPS8-01/02

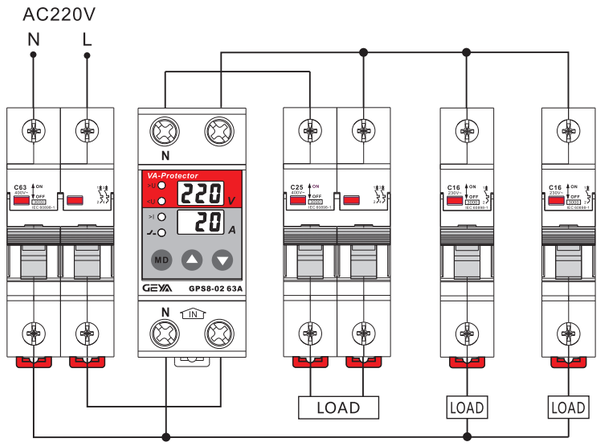


GPS8-02



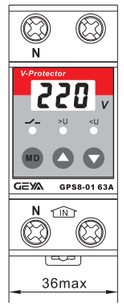
Ts：Power-up delay(2s)
Tr：Reset delay time(2~900s)

Example

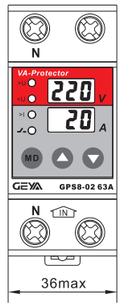


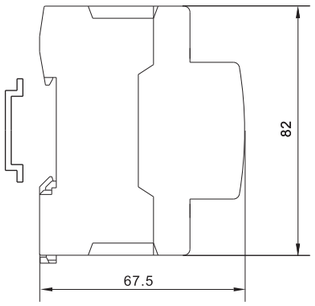
Dimensions(mm)

GPS8-01



GPS8-02





3-Phase Voltage / Current Protector

Applications

-Overvoltage ,undervoltage and overcurrent protection for household equipment.

Feature

-Voltage / current monitoring and protection.
-Double bus wiring design stronger ability.
-Over / under voltage value and over-current value can be set.
-Self reset after fault.
-Digital display voltage, current value, fault status can be displayed by LED.
-1-MODULE,DIN rail mounting.

Model and connotation

GPS8 −03□

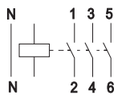
- Incoming line mode
  - U:upper incoming line
  - D:lower incoming line
- Design number
- GPS8 Series

Technical parameters

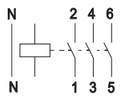
	GPS8-03
Function	Over voltage, under voltage and over current
Rated supply voltage	AC220V(L1,L2,L3-N)
Rated supply frequency	50/60Hz
Rated operational current	63A (AC1)
Burden	AC max.3VA
Voltage display	√
Current display	√
Over voltage operation value	230V~300V(factory default: 275V)
Over voltage action delay	0.5s
Under voltage operation value	145V~210V(factory default: 175V)
Under voltage action delay	0.5s
Over current operation value	1A~63A(factory default: 63A)
Over current action delay	3s~600s
Voltage unbalance value	20V~99V(factory default: 40V)
Voltage unbalance action time	10s
Power-up delay	2s
Reset time	2~900s(factory default:30s)
Measurement error	≤1%
Operating temperature	-20℃ to +55℃ (-4℉ to 131℉)
Storage temperature	-35℃ to +75℃ (-22℉ to 158℉)
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
Dimensions	82×72×68mm
Weight	130g

Wiring Diagram

GPS8-03U

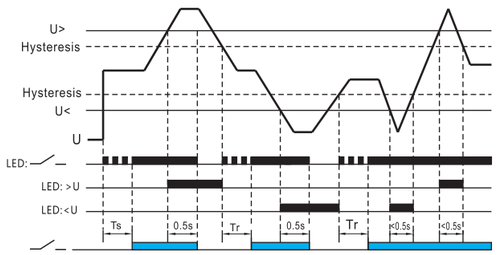


GPS8-03D



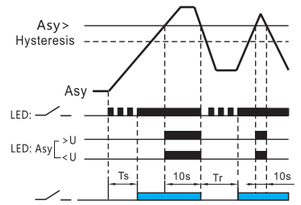
Functions Diagram

Overvoltage or undervoltage fault

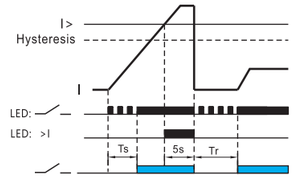


Ts：Power-up delay(2s)
Tr：Reset delay time(2~900s)

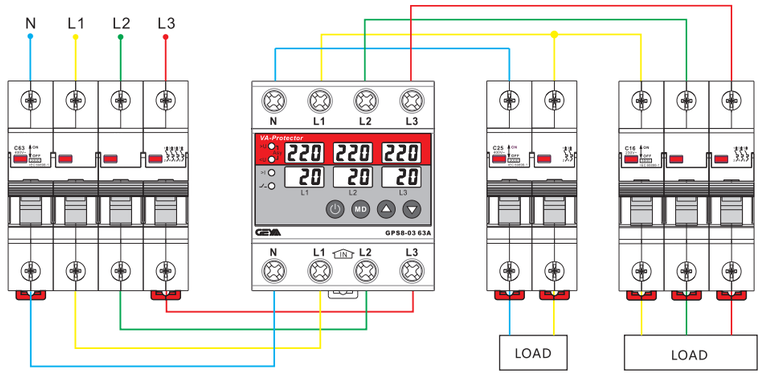
Voltage unbalance fault



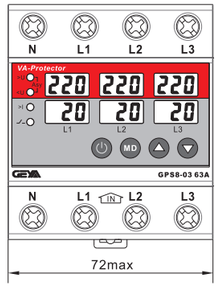
Overcurrent fault

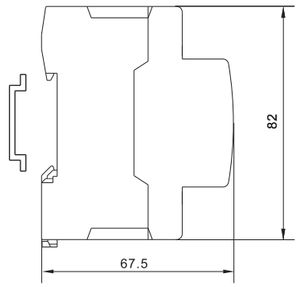


Example



Dimensions(mm)





Photosensitive sensor

Applications

-It can be used as the supporting sensor of twilight switch.

Feature

-Small size design, can be installed on the panel.
-It has two models: photoresist and photodiode.
-The model with built-in photodiode has a wider brightness detection range. it needs to be matched with the optical switch.

Model and connotation

PLS −01□ −0.2m

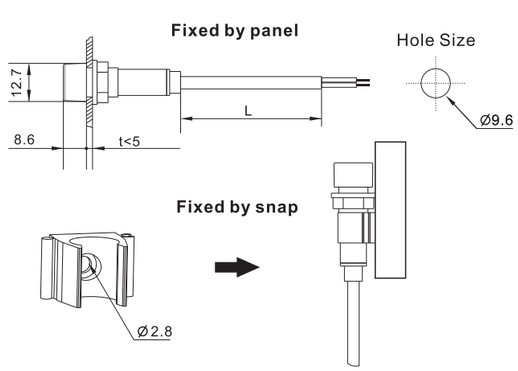
- 0.2m: Cable length
- □: Built in sensor type: R: photoresist D: photodiode
- 01: Design number
- PLS: Photosensitive sensor

Technical parameters

	PLS-01R
Built in sensor type	Photoresist
Maximum voltage	150VDC
Spectral peak	540nm
Bright resistance(10 Lux)	100kΩ-200kΩ
Dark resistance	15mΩ
100λ10	0.95
Response time	Rise:20ms Descent:30ms
Maximum power consumption	100mW
Protection degree	IP55 for front panel/IP50 terminals
Operating temperature	-20℃ to +60℃ (-4℉ to 140℉)
Storage temperature	-35℃ to +75℃ (-31℉ to 167℉)

	PLS-01D
Built in sensor type	Photodiode
Spectral application range	320nm-1100nm
Operating voltage range	2.2-5VDC
Light current(10 Lux)	⩾4uA(VDD=5V,R=1kΩ)
Dark current(0 Lux)	——
Maximum power consumption	100mW
Protection degree	IP55 for front panel/IP50 terminals
Operating temperature	-20℃ to +60℃ (-4℉ to 140℉)
Storage temperature	-35℃ to +75℃ (-31℉ to 167℉)

Dimensions(mm)



Applications

-It can be used as the supporting sensor of twilight switch.

Feature

-Small size design, can be installed on the panel.
-It has two models: photoresist and photodiode.
-The model with built-in photodiode has a wider brightness detection range. it needs to be matched with the optical switch.

Model and connotation

PLS −02□ −0.2m

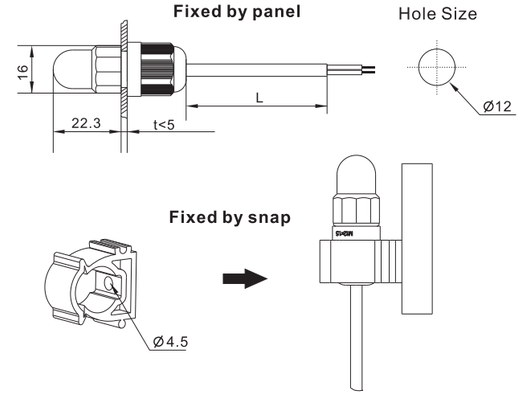
- 0.2m: Cable length
- □: Built in sensor type: R: photoresist D: photodiode
- 02: Design number
- PLS: Photosensitive sensor

Technical parameters

	PLS-02R
Built in sensor type	Photoresist
Maximum voltage	150VDC
Spectral peak	540nm
Bright resistance(10 Lux)	100kΩ-200kΩ
Dark resistance	15mΩ
100λ10	0.95
Response time	Rise:20ms Descent:30ms
Maximum power consumption	100mW
Protection degree	IP55
Operating temperature	-20℃ to +60℃ (-4℉ to 140℉)
Storage temperature	-35℃ to +75℃ (-31℉ to 167℉)

	PLS-02D
Built in sensor type	Photodiode
Spectral application range	320nm-1100nm
Operating voltage range	2.2-5VDC
Light current(10 Lux)	⩾4uA(VDD=5V,R=1kΩ)
Dark current(0 Lux)	——
Maximum power consumption	100mW
Protection degree	IP55
Operating temperature	-20℃ to +60℃ (-4℉ to 140℉)
Storage temperature	-35℃ to +75℃ (-31℉ to 167℉)

Dimensions(mm)



Liquid level probe

Applications

-Probe for matching liquid level relay.

Feature

-The metal part of the probe is made of 304 stainless steel.
-Cables of 3 different colors are used to distinguish different electrodes.
-The manufacturing material has good corrosion resistance.

Model and connotation

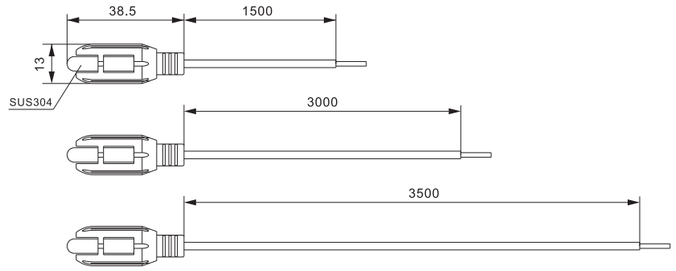
PLT －01 －1.5m

- 1.5m: Cable length
  1.5m:blue-1.5m\red-3m\white-3.5m
- 01: Design number
- PLT: Liquid level probe

Technical parameters

	PLT-01
Probe material	304 stainless steel
Cable material	Copper core PVC(20AWG)
Plastic material	PA66
Operating temperature	0℃ to +60℃ (32℉ to 140℉)
Storage temperature	-35℃ to +75℃ (-31℉ to 167℉)

Dimensions(mm)



Temperature sensor

Applications

-It is used to detect temperature and can be used together with temperature relay.

Feature

-Probe built-in high-precision NTC thermistor.
-The probe adopts waterproof design and can be used to detect water temperature.
-The cable adopts high temperature and corrosion-resistant silica gel..

Model and connotation

PTS - N - 0.5m

- 0.5m: length of cable
  0.5m; 1m; 2m; 3m; 5m;
- N: Design code
- PTS: Temperature sensor

Technical parameters

	PTS-N
Probe material	304 stainless steel
Cable material	Copper core silica gel
Sensor type	NTC thermistor
Waterproof grade	IP68
Operating temperature	-40℃ to +200℃ (-40℉ to 392℉)
Storage temperature	-40℃ to +75℃ (-40℉ to 167℉)

Dimensions(mm)

NTC sensor