

## Monitoring voltage relay GRV8-01.02 Instruction Manual



### General

#### ■ Applications

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

#### ■ Function Features

- 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 18...270V	AC/DC 20...80V
AD240	AC/DC 110...240V	AC/DC 18...270V	AC/DC 65...260V
A220	AC 220V	AC 160...270V	AC 180...260V

Function mode:

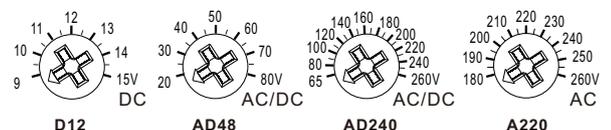
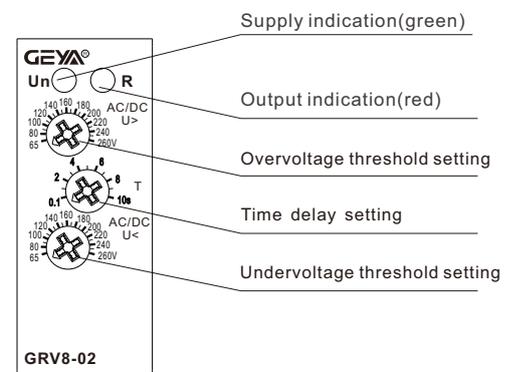
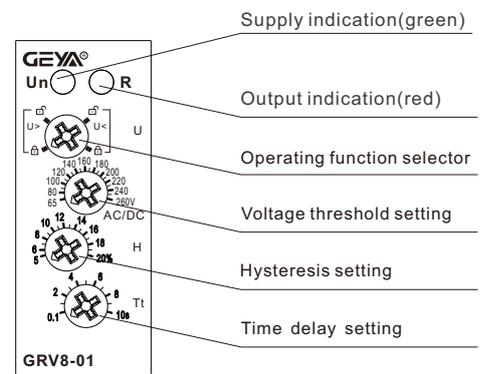
- 01 - Over/under voltage in windows mode
- 02 - Overvoltage Undervoltage

GRV8 Series

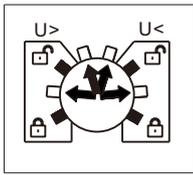
### Technical parameters

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 coecient	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 <sup>7</sup>	
Electrical life(AC1)	1×10 <sup>5</sup>	
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 <sup>2</sup> )	solid wire max.1×2. 5or 2×1. 5/with sleeve max.1×2. 5(AWG 12)	
Tightening torque	0.8Nm	
Dimensions	90×18×64mm	
Weight	59g	
Standards	EN 60255-1,IEC60947-5-1	

### Panel Diagram

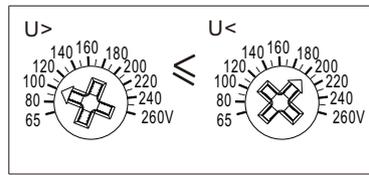


### Wrong setting of GRV8-01



As shown in the figure above, they are wrong settings. In that cases, LED-Un and LED-R will flash at the same time, which indicate the setting error. Normal operation will be resumed through resetting after power-off. If the operating function is changed after power-on, the two LED indicators would flash while the relay operates based on original operating functions; the LED would resume the normal indication after the original setting is recovered.

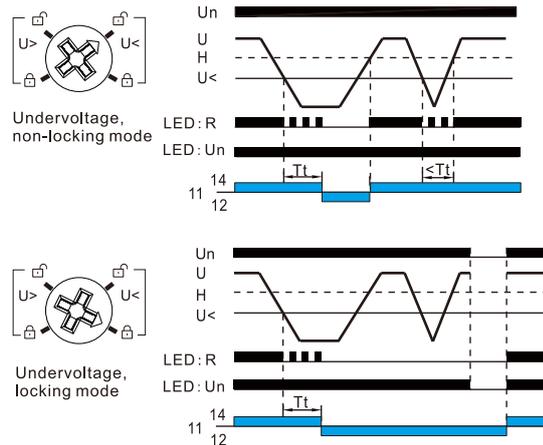
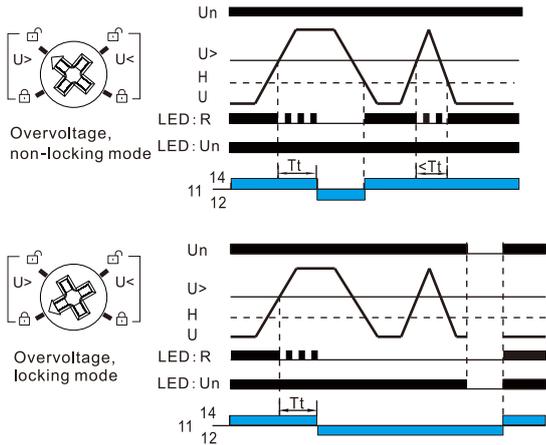
### Wrong setting of GRV8-02



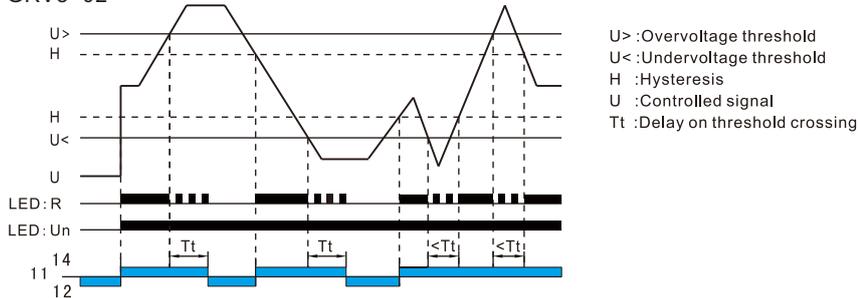
The set overvoltage threshold value must be larger than undervoltage threshold value. Otherwise, all LEDs would flash and the output relay would be disconnected.

## Functions Diagram

### GRV8-01

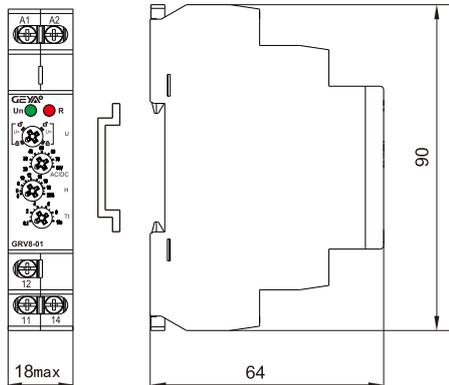


### GRV8-02

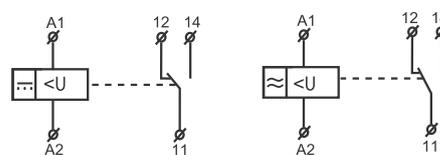


U> :Overvoltage threshold  
 U< :Undervoltage threshold  
 H :Hysteresis  
 U :Controlled signal  
 Tt :Delay on threshold crossing

## Dimensions(mm)



## Wiring Diagram



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



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