

## Single-phase Voltage Monitoring Relay SVR1000

### Features

- Powered by the measuring circuit
- Compatible with AC and DC supply
- Microprocessor technology provides highly accurate and repeatable protection
- Built-in LCD and keypad afford a precise digital setting
- Compact modular 43mm housing
- Adjustable over- and undervoltage
- Independent adjustable delay time for overvoltage, undervoltage
- Adjustable reset mode: automatic reset or manual reset
- 1 CO & 1NC contacts
- Fault recording with last 3 faults



### Protective Functions

- Undervoltage
- Overvoltage

### Applications

- Pumps ● Fans
- Refrigeration Units
- Blowers ● Motors
- Compressors
- Lifts, Elevators
- Cranes
- Mining excavators and conveyors

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### Ordering Information

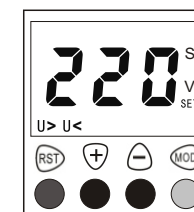
Model	Rated Voltage	Voltage Limits	Over- and undervoltage Setting Range
SVR1000/D12	DC 12V	DC 8~20V	DC 9~18V
SVR1000/AD48	AC/DC 24~48V	AC/DC 17~100V	AC/DC 20~80V
SVR1000/AD220	AC/DC 110~240V	AC/DC 40~310V	AC/DC 50~300V

### Technical data

Rated supply voltage	D12:DC12V AD48:AC/DC 24~48V AD220:AC/DC110~240V
Operating Frequency	50/60Hz
Voltage setting range	D12:DC 9.0~18.0V AD48:AC/DC 20.0~80.0V AD220:AC/DC 50.0~300V
Voltage hysteresis	D12:0.1~6.0V AD48:0.1~30.0V AD220:1.0~90.0V
Over- and undervoltage tripping time	0.1~999s
Automatic reset time	0.1~999s
Measurement error	≤1% with adjustable voltage range
Fault recording	Three times
Output type	1CO & 1NC
Contact capacity	6A, 250VAC/30VDC (resistive load)
Degree of protection	IP 20
Working conditions	-25℃~65℃, ≤85%RH, non-condensing
Mechanical durability	1000000 cycles
Dielectric strength	>2kVAC 1min
Weight	130g
Dimensions (H x W x D)	80X43X54mm
Mounting	35mm DIN rail

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### Front Panel View

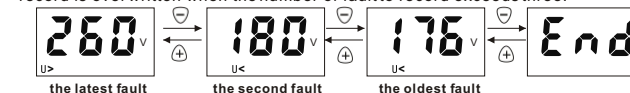


- RST → Reset/Test
- + → Increasing setting value
- → Decreasing setting value/Fault records
- MOD → Setting parameters

LCD Indication	Description
U>	Overvoltage fault indication or overvoltage setting indication
U<	Undervoltage fault indication or Undervoltage setting indication
SET	Parameter setting indication

### Fault History Check

Pressing **MOD** more than 3sec, it displays the latest fault cause and the fault voltage. Press **MOD** or **+** to check the previous or later fault continually. The display shows "End" after the three fault, then press **MOD** again or **RST** to exit. The oldest fault record is overwritten when the number of fault to record exceeds three.



### Test Trip

Pressing **RST** more than 3sec to active the test trip mode, all the output contacts will trip when 3s expires. The display shows "1st" when the test is done. By pressing **RST**, returns to the voltage display mode. Before 3s expires, pressing **RST** blocks the test trip and return to the voltage display.



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### Parameter Setting Method

Press and hold key **MOD** for 3 seconds together into parameter setting interface, then press **MOD** to shift to next parameter, press **+**/**-** to set up the values. Long press **+**/**-** could accelerate increase or decrease. Press **RST** to exit setting.

LCD indication	Parameters	Setting range	Default
25.3 V SET	overvoltage threshold	D12:9.0-18.0V-OFF*1 AD48:20.0-80V-OFF AD220:50.0-300V-OFF	D12:15V AD48:55V AD220:253V
5.0 S SET	overvoltage delay time	0.1-999s	5s
18.7 V SET	undervoltage threshold	D12:9.0-18.0V-OFF AD48:20.0-80V-OFF AD220:50.0-300V-OFF	D12:10V AD48:40V AD220:187V
5.0 S SET	undervoltage delay time	0.1-999s	5s
10.0 V SET	voltage hysteresis	D12:0.1-6.0V AD48:0.1-30.0V AD220:1.0-90.0V	D12:0.5V AD48:2.0V AD220:10.0V
oRU SET	reset mode	AU/HA/SA*2	AU
*3 3.0 S SET	reset time	0.1-999s	3s
r2.0	item version	ver 2.0	----
End SET	exit*4	----	----

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### Parameter Setting Method

#### (Continued)

#### Note:

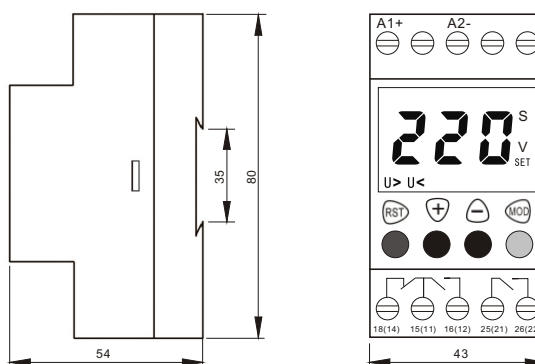
1. "OFF" means disable the function.
2. For reset method, "AU" means auto reset, "HA" means hand manual reset, "SA" means auto reset with power-on delay, power-on delay time is the same as reset time.
3. For reset time, the reset code will be hidden if reset time is more than 9.9 seconds.
4. The relay would automatically exit setting interface if any key is not pressed for consecutive 30 seconds.

### Deviation correction

**Note: the relay is initially calibrated at the time of manufacture. Don't operate if not necessary.**

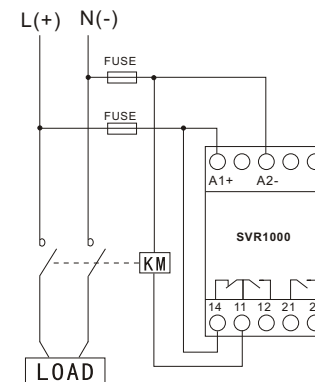
Press **+** and **-** more than 3s at the same time, it will get into the deviation correcting menu, "SET" and "V" will flash. Input any voltage, press **+** or **-** to adjust the display voltage to the correct value directly. The step is 0.1%. Long press **+**/**-** could accelerate increase or decrease. Press **RST** to quit and save.

### Dimensions (mm)



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### Wiring Diagram



#### Note:

1. Relay contact position shown in 'Power on' (Healthy) condition.
2. For DC power supply, the polarities must be correctly installed. Otherwise, the relay won't work.

**GENERAL SAFETY**  
POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE RELAYS.  
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.  
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.



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