

SVR1000 Multifunctional Single-phase Voltage Monitor (Single-phase AC & DC Voltage Relay)



Features:

- Compatible with AC and DC supply
- LCD Voltage display
- Over voltage protection
- Under voltage protection
- Output test function
- 3 reset modes
- Fault records

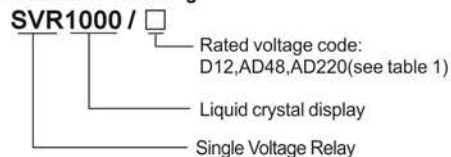
Dimensions(mm): 80H×43W×54D

Warning! The product generally installed on the input side of power supply, and it can't installed on the output side of inverter.

1 Product Overview

SVR1000 is Multi-function monitoring and protection device which includes voltage show, overvoltage and undervoltage protection. It uses advanced microprocessor chip and nonvolatile storage technology. English LCD is easy to operate. It can show the current AC or DC supply voltage. The relay will cut off the power to protect the equipment from overvoltage and undervoltage. The relays are widely used in air compressor, electric motors, power distribution boxes, pumps, fuel pumps, central air conditioning units, electrical control boxes, distribution cabinets, cranes, etc.,

2 Model and meaning



(table 1)

Rated voltage code	Rated voltage	Supply voltage limits	Overvoltage range	Undervoltage range
D12	DC12V	DC 8~20V	DC 9~18V	DC 9~18V
AD48	AC/DC 24~48V	AC/DC 17~100V	AC/DC 20~80V	AC/DC 20~80V
AD220	AC/DC 110~240V	AC/DC 40~310V	AC/DC 50~300V	AC/DC 50~300V

3 Main technical data

Items	Parameters	Items	Parameters
Rated voltage	DC12V, AC/DC 24~48V, AC/DC 110~240V	Mechanical durability	1000000 cycles
Frequency	50/60HZ	Dielectric strength	>2kVAC
Voltage measurement accuracy	±1%	Working condition	-25~+65℃ humidity ≤ 85%RH no condensation
Output contacts	1CO & 1NC		
Contact capacity	6A/250VAC	Weight	130g
Fault records	last 3 times	Mounting	DIN rail

4 Operation manual

1) Voltage display

In normal conditions, the LCD displays the current value of supply voltage. The relay can automatically identify AC or DC voltage without switching.

2) Alarm and reset functions

When an overvoltage or undervoltage event occurs, the LCD display flashing the word "U>" or "U<", the output relay contacts open. Then press "RST" can reset immediately.

You can set 3 kinds of reset mode in parameter menu: automatic reset, manual reset and automatic reset with power-on delay (power-on delay time is the same as reset delay time).

NOTE: Even if you select automatic reset, press "RST" can still be manually reset.

3) Output test function

This function can be used to test whether the relay is operating normally. Press "RST" for 3 seconds, the LCD 3-second countdown begins, after countdown ends, all contact action, the LCD display flashing "tst" (means test), press "RST" button to reset. Before the countdown end, press "RST" can cancel the test.

4) Fault inquiry function

Press "-" button for 3 seconds to query the last three fault records. The first is the latest fault records. Press "+" to turn previous one, press "-" to turn next one, at the end it displays "End", then press "-" to exit the query. During the query, press "RST" can exit the fault query interface directly. If 30 seconds without operation, the relay will automatically exit to the voltage display interface.

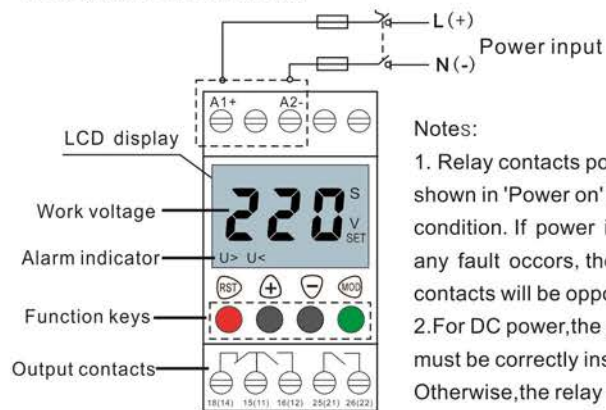
5) Internal parameter settings

Press "MOD" for 3 seconds to enter the parameter setting state, LCD shows "Settings", parameter name or code, parameter value and units. Press "+" or "-" keys to add or subtract the value of this parameter value (press 1s "+" or "-" can quickly add and subtract), press "MOD" to save and automatically skip to the next parameter. Press "RST" at any time to exit. If 30 seconds without operation, the relay will automatically exit to the voltage display interface.

5 Parameters menu

Parameters	Setting range	Step	Default	Remarks
Overvoltage	D12:9~18V,OFF AD48:20~80V,OFF AD220:50~300V,OFF	0.1V	15V 55V 253V	D12 is for DC12V, AD48 and Ad220 is compatible with AC and DC, OFF means disable the function.
Overvoltage trip time	0.1~999s	0.1s	5s	
Undervoltage	D12:9~18V,OFF AD48:20~80V,OFF AD220:50~300V,OFF	0.1V	10V 40V 187V	
Undervoltage trip time	0.1~999s	0.1s	5s	
Voltage hysteresis	D12:0.1~6V AD48:0.1~30V AD220:1~90V	0.1V	0.5V 2V 10V	LCD shows both "U>" and "U<"
Reset mode (● is reset code)	AU/HA/SA	---	AU	AU : auto reset HA : hand reset SA : auto reset with power-on delay
Reset delay time	0.1~999s	0.1s	3s	power-on delay time is the same as reset delay time
Version	v1.0	---	---	version number
End	End	---	---	exit set

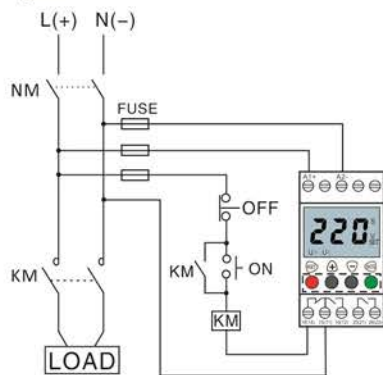
6 Panel and Terminals Shows



Notes:

1. Relay contacts position shown in 'Power on' (Healthy) condition. If power is off or any fault occurs, the relay contacts will be opposite.
2. For DC power, the polarities must be correctly installed. Otherwise, the relay won't work.

7 Wiring diagram



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