MD7UW3　Voltage monitoring relays specification

③ ① PW：Green LED, power supply indication

② R: Relay status indication

③ M/NM：Memory or without memory setting

④ U: Voltage benchmark setting

⑤ <U<: Undervoltage/overvoltage setting

⑥ Tt : Delay time value setting
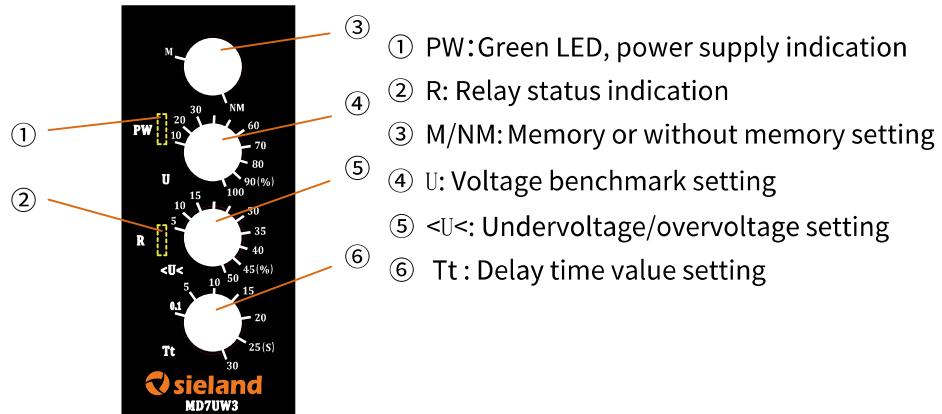
Products features：

■ Power supply: 24-240V AC/DC

■ Three monitoring channels: V1/V2/V3 - C

■ Memory mode can be set on the panel, M: with memory, NM: without memory

Technical data：

Power supply：	24 - 240V AC/DC
Voltage benchmark：	10 - 100% (V1/V2/V3 - C)
Under/overvoltage：	5 - 50% (voltage benchmark)
Delay setting：	0.1s - 30s
Relay output：	2 c/o
Repeatability：	±0.5%
Temp. drift：	±0.05%/°C
Voltage drift：	±1%/V
Switch current：	8A/250VAC
Electrical durability：	10^5 cycles
Mechanical durability：	10^7 cycles
IP degree：	IP50/IP20
Temerature：	–40°C…60°C
Store temperature：	–40°C…85°C
Size：	22.5*92*100 mm
Mounting：	35mm DIN rail
Standards：	IEC60255-1、GB14048.5

T: 0.1-30s

A1- A2: 24-240V AC/DC, 50/60Hz

⌒⁄⌐ : 8A 250V AC

A1(+) A2(-)

V1 V2 V3 C

<U<

15   25

16 18 26 28

Note：

■ If A1-A2 is DC power supply， then A1 must be positive， A2 must be negative

■ Three voltage monitoring channels： **V1-C: 15 - 150V, V2-C: 30 - 300V, V3-C: 60 - 600V AC/DC,**
select one channel according to voltage value
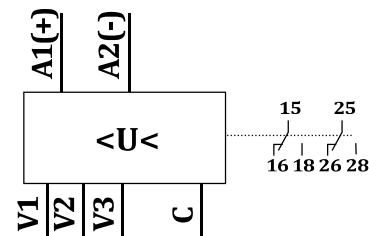
Function figure:

NM： without memory

A1-A2

>U
Hys
U
Hys
<U

R

t<T

t<T

T   T

M： with memory

A1-A2

>U
Hys
U
Hys
<U

R

t<T

T
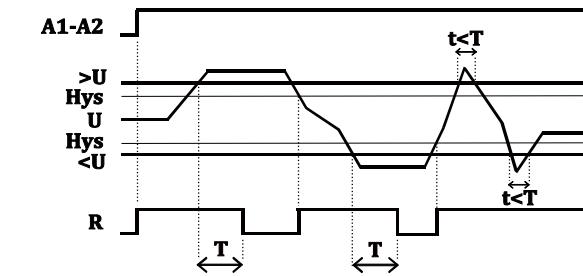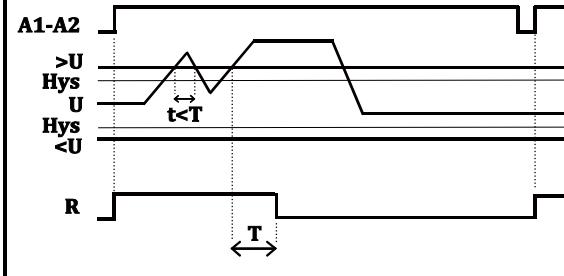
■ M： with memory means if fault occur just for one time, relay c/o can not return to normal status automatically,
unless power supply restart

Example:

■ Voltage monitoring

Setting：

NM： without memory
U： 60% (voltage benchmark setting)
<U< setting： 20%
Delay time value setting： 5s

If V3-C is connected
Then：

Voltage benchmark： 600*60% = 360 V
Voltage threshold： 360*0.2 =72 V
>U： 360+72 = 432 V
<U： 360-72 = 288 V
Hysterisys： 72*10%= 7.2 V (hysterisys value 10% fixed in firmware)

Voltage ： 432-7.2 = 424.8 V (return from >U fault)
Voltage ： 288+7.2 = 295.2 V (return from <U fault)

Conclusion：

1. If voltage is between 288V and 432V， voltage is normal， relay c/o switch on，
led R turn on

2. If voltage is over 432V， over-voltage fault occur， relay c/o switch off，
led R turn off ， if voltage fall to 424.8V， relay c/o switch on， led R turn on

3. If voltage is under 288V， under-voltage fault occur， relay c/o switch off，
led R turn off ， if voltage rise to 295.2V， relay c/o switch on， led R turn on