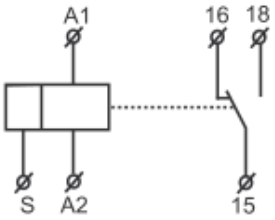
SHANGHAI NEWTREND ELECTRIC CO., LTD.
No. 618 North Huting Road | 201615 | Shanghai | China
Tel / WhatsApp: +86-18019187010 | sales@sntelec.com | www.sntelec.com

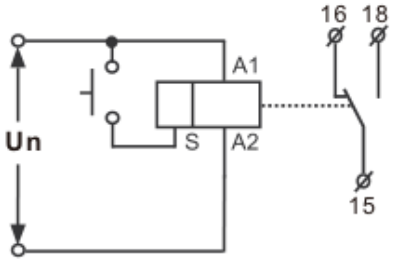
RT8-X1 Digital Multifunction Timer Relay

NewTrend RT8-X1 is a digital time relay with 20 selectable operating modes and a 0.1-second to 99-day timing range. Pushbuttons set the mode, time base and delay values, while the display shows the timing state. The 1 SPDT output is rated 16A AC-1. Power-on timing, S-input timing, cycling, latching and permanent ON/OFF modes support varied control sequences.

Parameter	Specification
Model	RT8-X1
Output contacts	1 SPDT
A230 power input	AC maximum 6VA / 1.3W
Weight	Wide-range: 62g; AC 230V: 60g
Function	20 selectable modes (01-20)
Supply terminals	A1-A2
Control supply options	AC/DC 24-240V pictured version; AC 230V version; 50-60Hz
Supply tolerance	-15% to +10%
W240 burden	AC 0.09-3VA / DC 0.05-1.7W
Time setting	Digital pushbutton setting
Adjustment range	0.1s-99days; ON; OFF
Marked time ranges	0.1s / s / 0.1min / min / 0.1h / h / 0.1day / day time bases
Time setting deviation	Maximum 1%
Repeat accuracy	0.2% of set value
Temperature coefficient	0.05%/degree C at 20 degrees C
Contact rating	16A, AC-1
Switching voltage	250VAC / 24VDC
Minimum DC breaking power	500mW
Output indication	Red LED
Mechanical life	10,000,000 operations
Electrical life (AC-1)	100,000 operations
Reset time	Maximum 200ms
Operating temperature	-20 to +55 degrees C
Storage temperature	-35 to +75 degrees C
Mounting	DIN rail to EN/IEC 60715
Protection	IP40 front panel; IP20 terminals
Operating position	Any
Overvoltage category	III
Pollution degree	2
Maximum conductor size	Solid: 1 x 2.5mm2 or 2 x 1.5mm2; with sleeve: 1 x 2.5mm2 (AWG 12)
Terminal tightening torque	0.4Nm
Body dimensions	90 x 18 x 64mm
Referenced standards	EN 61812-1; IEC 60947-5-1

Connections and operation

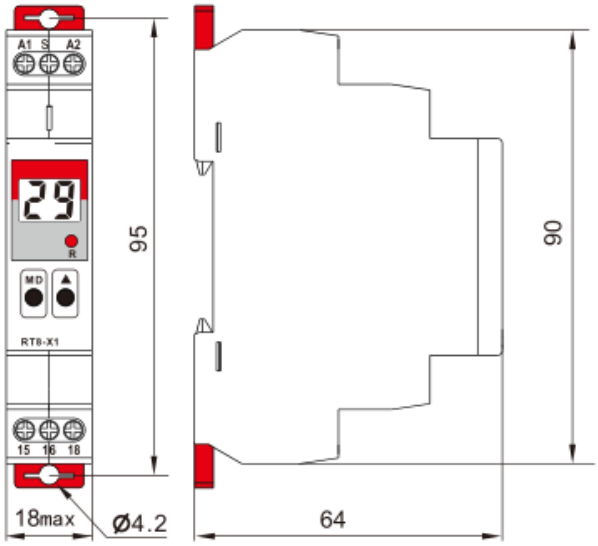




Twenty functions include power-on on-delay, interval and repeat cycling; S-controlled timing, latching and start-stop functions; and permanent ON/OFF.

Specify the numbered function using the timing diagrams. T2 is available only for modes that require a second interval.

Dimensions and adjustment





Body: 90 x 18 x 64mm. Overall height: 95mm. Fixing holes: 4.2mm.

Common housing dimensions; RT8-X1 front view shown.

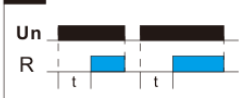
Press MD briefly for fast delay adjustment; hold MD for 3 seconds to enter or exit function settings. Select mode 01-20, time base, T1 and T2 where applicable. The display can use elapsed-time or countdown indication; see the setting diagram.

Installation

Installation and wiring must be performed by qualified electricians in accordance with applicable safety standards. Isolate the circuit before wiring and use the appropriate electrical-waste collection route.

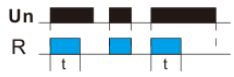
Twenty selectable operating functions 01-20

01 On Delay (Power On)



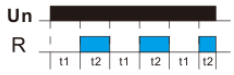
When relay Un is powered on, the relay starts to delay, and the output contact is closed after delay t. After the relay Un is de energized, the output contact is disconnected and the S control signal is invalid in this function mode.

02 Interval (Power On)



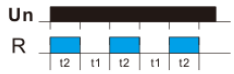
When relay Un is powered on, the relay output contact will be closed immediately and start delay. After delay t, the output contact will be disconnected. If the delay time t does not arrive and relay Un is powered off, the output contact will be disconnected, and the S control signal is invalid in this function mode.

03 Repeat cycle (Starting Off)



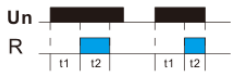
When relay Un is powered on, the relay starts to delay. After delay t1, the output contact is closed. At the same time, after delay t2, the relay output contact is disconnected. In this way, the cycle delay is delayed until relay Un is powered off, and the S control signal is invalid in this function mode.

04 Repeat cycle (Starting On)



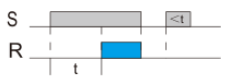
When the relay Un is powered on, the relay is closed and begins to delay. After the delay t2, the output contact is disconnected. At the same time, after the delay time t1, the relay output contact is closed. In this way, the cycle delay is delayed until the relay Un is powered off, and the S control signal is invalid in this function mode.

05 Pulse generator(Power On)



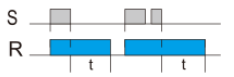
When relay Un is powered on, the relay starts to delay. After delay t1, the output contact is closed. At the same time, after delay t2, the relay is disconnected and maintained. After relay Un is powered off, the output contact is disconnected. S control signal is invalid in this function mode.

06 On delay with external contorl



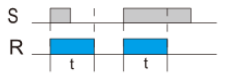
When the relay Un is in the power on state, when the S control terminal is connected, the relay starts to delay. After the delay t, the output contact is closed. When the S control terminal is disconnected, the output contact is disconnected.

07 Off delay with external start



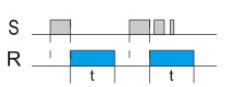
When the relay Un is in the power on state, when the S control terminal is connected, the relay will be closed immediately. When the S control terminal is disconnected, the delay will start. After the delay t, the output contact will be disconnected. During the delay process, the S control terminal will be connected and disconnected again, and the delay t will be cleared and delayed again.

08 Pulse I with external start



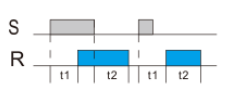
When the relay Un is in the energized state, when the S control terminal is connected, the relay is closed, and the relay starts to delay. After the delay t, the output contact is disconnected. During the delay t, the S control terminal is connected again, and the delay t remains unchanged and continues to delay.

09 Pulse II with external start



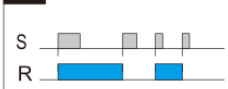
When the relay Un is in the energized state, when the S control terminal is disconnected, the relay is closed, and the relay starts to delay. After the delay t, the output contact is disconnected. During the delay t, the S control terminal is switched on and off again, and the delay t remains unchanged and continues to delay.

10 On/off delay with external contorl



When the relay Un is in the energized state, when the S control terminal is connected, the relay starts to delay, and the output contact is closed after delay t1. When the S control terminal is disconnected, the relay starts to delay, and the output contact is opened after delay t2.

11 Latching relay



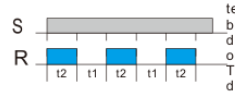
When the relay us is energized and the S control terminal is connected, the relay output contact state changes.

12 Repeat cycle with external contorl (Starting Off)



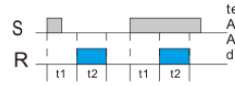
When the relay us is in the energized state, the S terminal is closed and the relay starts to delay. After the delay T1, the output contact is closed. At the same time, after the delay T2, the relay output contact is disconnected. This cycle delays until the S terminal is disconnected.

13 Repeat cycle with external contorl (Starting On)



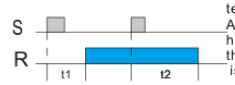
The relay Un is in the energized state, the S terminal is closed, the relay is closed and begins to delay, the output contact is disconnected after delay t2, and the relay output contact is closed after delay time t1. This cycle delays until the S terminal is disconnected.

14 Pulse generator with external start



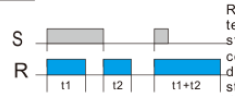
Relay Un is in the energized state. When terminal S is closed, the relay starts to delay. After delay T1, the output contact is closed. At the same time, after delay T2, the relay is disconnected.

15 Start-stop



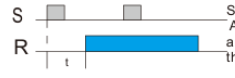
Relay Un is in the energized state. When terminal S is triggered, the relay starts to delay. After delay t1, the output contact is closed and held. When terminal S is triggered again, the relay starts to delay. After delay t2, the relay is disconnected.

16 Double delay off with external control



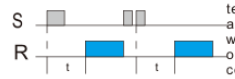
Relay Un is in the energized state. When terminal S is closed, the relay is closed and starts to delay. After delay t1, the output contact is disconnected. When terminal S is disconnected, the relay is closed again and starts to delay. After delay t2, the relay is disconnected.

17 On delay I by external start



The relay Un is in the energized state. When the S terminal is closed, the relay starts to delay. After the delay t, the output contact is closed and held. When the relay Un is disconnected, the relay is disconnected.

18 On delay II with external start



Relay Un is in the energized state. When terminal S is triggered, the relay starts to delay, and the output contact closes after delay t. when terminal S is triggered again, the relay opens and starts to delay, and the output contact closes after delay t. When relay Un is off, the relay is off.

19 Always ON



Relay Un is in the energized state, the relay is closed, Un is in the de energized state, and the relay is disconnected.

20 Always OFF

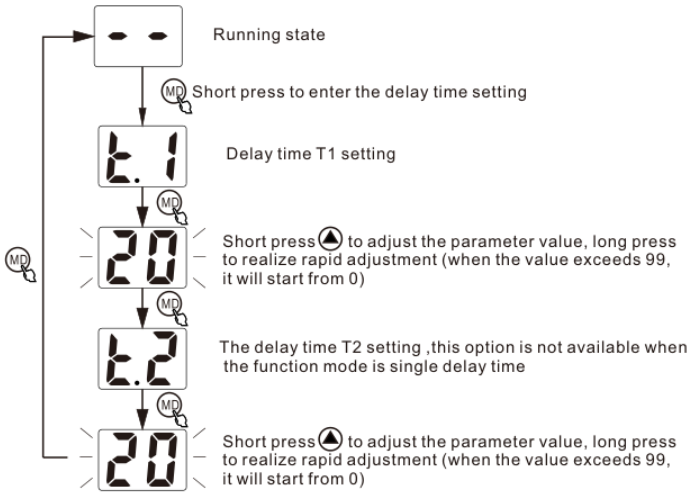


Relay Un is energized or de energized, and both relays are disconnected.

Un: control supply. S: trigger input. t/T1/T2: selected timing intervals. Use the numbered function diagram to specify the required sequence.

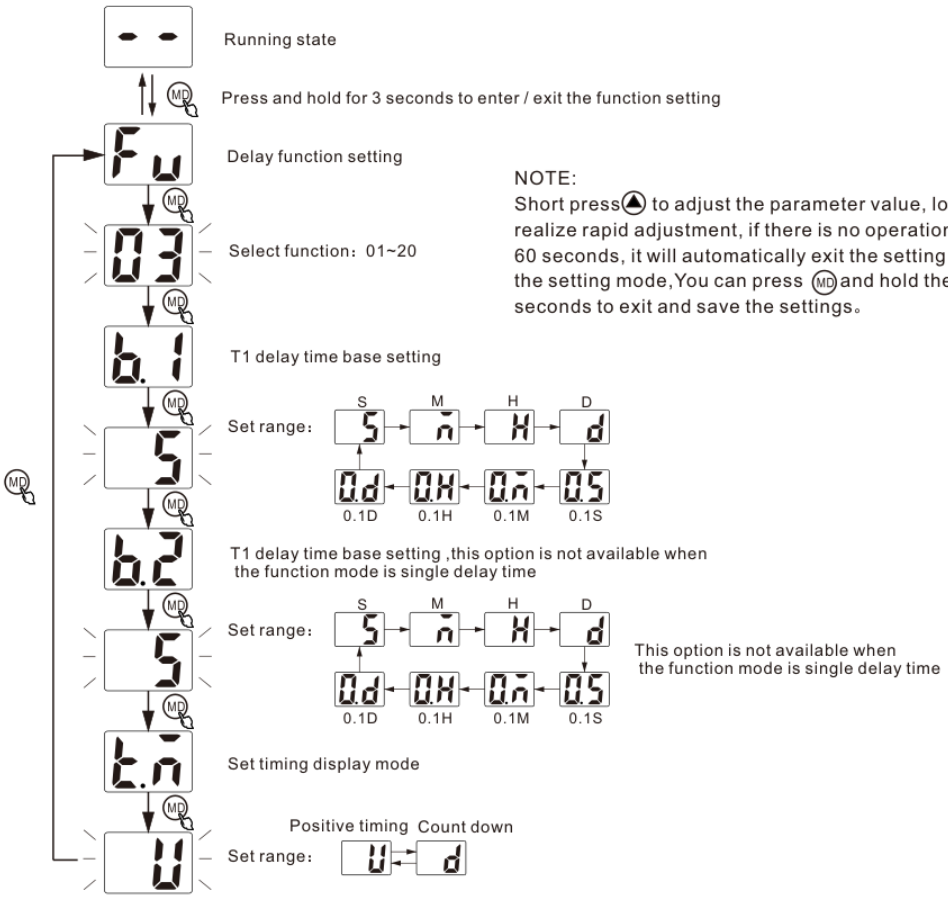
Digital setting and adjustment

Short press (MD) to enter the interface of fast setting delay time, as shown below:



Delay function setting

Long press (MD) 3 seconds to enter the function mode parameter setting interface, as shown below:



NOTE:
Short press ▲ to adjust the parameter value, long press to realize rapid adjustment, if there is no operation key within 60 seconds, it will automatically exit the setting mode. In the setting mode,You can press (MD) and hold the key for 3 seconds to exit and save the settings。