MB48 intelligent digital display multi-function time, count, and tachometer

General parameters
1. Power supply: AC220V 50HZ (non-standard power supply voltage can be customized)
2. Power consumption of the whole machine: less than 3VA
3. Contact capacity: AC220 3A (resistive load)
4. Contact life: 200000 times

Specification

Terminal wiring diagram

Description of terminal
NC: relay normal close. NO: relay normal open.
UO: 12V output. COM: public. CNT: count signal input
RST: reset, RST connect to COM available
PAU: STOP, use to choose increase or decrease.
Level pulse: lower 0.6V or higher 4V the connection as below
Description of panel

1.--- timeout key or the add subtraction count selection key; this key is the same as the terminal PAU function.
2. function setting / bit selection can enter the function setting state after holding the key for 10 seconds. Touch the key, can enter the preset parameter setting state; after entering the set state, according to the health, select location, select bit flicker;
3.--- add key: using this key to change the flicker bit value, this value increases one way
4.--- reset press the reset button to restore the instrument to the initial state; lift the reset button and the instrument work normally.

Function setting
1. push key “2” 10second, the upper led light, display XY-Z
    “X”, “Y” is function code, Z is relay work mode
2. when the led is flash use key “3” to choose the function
3. Push key “2” Z will flash and use key “3” to choose the relay mode
4. waiting for 10 seconds, the parameters are automatically deposited and exit the set state.
5. setting should be carried out continuously, and each of the two steps should not exceed 8 seconds.
6. function numbering and product function comparison table:
<table>
<thead>
<tr>
<th>Function code</th>
<th>Function description</th>
<th>Working range</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>0.01s-99.99s</td>
</tr>
<tr>
<td>02-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>0.01s-99.99s</td>
</tr>
<tr>
<td>03-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1min-9999min</td>
</tr>
<tr>
<td>04-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1min-9999min</td>
</tr>
<tr>
<td>05-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1s-9999s</td>
</tr>
<tr>
<td>06-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1s-9999s</td>
</tr>
<tr>
<td>07-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1s-99m59s</td>
</tr>
<tr>
<td>08-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1s-99m59s</td>
</tr>
<tr>
<td>09-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1min-99h59min</td>
</tr>
<tr>
<td>10-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1min-99h59min</td>
</tr>
<tr>
<td>11-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1min-99h59min</td>
</tr>
<tr>
<td>12-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1min-99h59min</td>
</tr>
<tr>
<td>13-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1s-99m59s</td>
</tr>
<tr>
<td>14-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1s-99m59s</td>
</tr>
<tr>
<td>15-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1s-9999s</td>
</tr>
<tr>
<td>16-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1s-9999s</td>
</tr>
<tr>
<td>17-Z</td>
<td>Single set four bit time relay (positive timing)</td>
<td>1min-9999min</td>
</tr>
<tr>
<td>18-Z</td>
<td>Single set four bit time relay (countdown)</td>
<td>1min-9999min</td>
</tr>
<tr>
<td>19-Z</td>
<td>Single set eight bit timers (reset)</td>
<td>0-99h58min59.99s</td>
</tr>
<tr>
<td>20-Z</td>
<td>Single set eight bit timers (eight)</td>
<td>0-99h58min59.99s</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td></td>
<td>seconds reset)</td>
<td></td>
</tr>
<tr>
<td>21-Z</td>
<td>Single set eight bit timers (reset)</td>
<td>0-9999h59min 59s</td>
</tr>
<tr>
<td>22-Z</td>
<td>Single set eight bit timers (eight seconds reset)</td>
<td>0-9999h59min 59s</td>
</tr>
<tr>
<td>23-Z</td>
<td>Single set eight bit timers (reset)</td>
<td>0-9999day23h 59min</td>
</tr>
<tr>
<td>24-Z</td>
<td>Single set eight bit timers (eight seconds reset)</td>
<td>0-9999day23h 59min</td>
</tr>
<tr>
<td>27-Z</td>
<td>Single set four bit tachometer</td>
<td>60-9999rpm</td>
</tr>
<tr>
<td>28-Z</td>
<td>A single set of four bit rate multiplex speed and frequency meter</td>
<td>0-9999</td>
</tr>
<tr>
<td>29-Z</td>
<td>Single set four bit reversible counter</td>
<td>0-9999</td>
</tr>
<tr>
<td>30-Z</td>
<td>Single set four bit reversible band multiplex counter</td>
<td>0-9999</td>
</tr>
<tr>
<td>31-Z</td>
<td>Single set four bit reversible counter</td>
<td>00000000-99999999</td>
</tr>
<tr>
<td>32-Z</td>
<td>Single set four bit reversible band multiplex counter</td>
<td>00000000-99999999</td>
</tr>
</tbody>
</table>

The working mode of the relay. Its number and function are compared with the following table

<table>
<thead>
<tr>
<th>Z</th>
<th>content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An electrical instrument working and a relay is absorbed when the timing is set.</td>
</tr>
<tr>
<td>2</td>
<td>The power meter does not work (it can work by repositioning it) to achieve a set value relay</td>
</tr>
<tr>
<td>3</td>
<td>The relay is released when the set is reached.</td>
</tr>
<tr>
<td>4</td>
<td>The power meter does not work (can work by repositioning it) to achieve the set value relay release</td>
</tr>
<tr>
<td>5</td>
<td>When the electric instrument works, the relay is absorbed when the set is set. After 5 seconds, the instrument will be reset automatically. Restart</td>
</tr>
<tr>
<td>6</td>
<td>A relay is not working (can work by reset), and the relay is absorbed when the set is set. After 5 seconds, the instrument will reset automatically and start to work again</td>
</tr>
</tbody>
</table>
MB48 single set double digital four bit time relay

First, product overview
1. The delay value of the display range is set at any time, and the set value is not lost.
2. The time delay range is wide, the precision is high, and the power consumption is low.

Two. Function setting
1. Select the function number from the preceding numbering and function comparison table; selection range from "01-Z" to "10-Z";
2. Z is a relay working mode, setting the range 1~6. The specific meaning is shown in the previous control table.
3. Set method refer to the previous description, no longer repeat.

Three. Instructions for use
1. Display: when the upper display delay value, lower set value.
2. Time delay setting
Push \[ LED \] flash push \[ \] to set the first number then push \[ \] to select the second number and use \[ \] to increase. By analogy, set the third-bit and fourth-bit values; wait for 8 seconds, flicker stop, set up.
3. Using the reset button or reset terminal or recharging can make the delay device start working. After the delay is completed, the relay acts according to the set mode.

MB48S double set double digital four bit time relay

First, product overview
1. In the display range, set the release of relay, the time of suction, the set value is not lost.
2. The time delay range is wide, the precision is high, and the power consumption is low.

Two. Function setting
1. Select the function number from the preceding numbering and function comparison table; selection range from "11-Z" to "18-Z";
2. Z is the working mode of the relay, setting the range 1~2. The specific meaning is shown in the previous control table.
3. Set method refer to the previous description, no longer repeat.

Three. Instructions for use
1. Display: setting up digital display time relay set release value, lower digital display time relay setting value;
2. During normal operation, the upper display relay release, pick-up time the current value of the lower display relay setting value pick-up time release.
2 release time of relay and setting of sucking time

Push \( \square \) LED flash push \( \square \) to set the first number \( \square \) then push \( \square \) to select the second number and use \( \square \) to increase By analogy, set the third - bit and fourth - bit values; wait for 8 seconds, flicker stop, set up.

Push \( \square \) again the LED light in the next line will flash With the same method, the suction time of the relay can be set.

3, using the reset button or reset terminal or recharging can make the delay device start working. After the delay is completed, the relay acts according to the set mode.

### MB48L single set eight bit hour meter

First, product overview

1 key settings, in the range of display arbitrarily set tired time value;
Not lost power 2 set value, current value of tired. Two. Function setting

1 select the function number from the preceding < numbered and function comparison table > select range from "19-Z" to "24-Z".

2Z is the working mode of the relay, setting the range 1~6. The specific meaning is shown in the previous control table.

3 set method refer to the previous description, no longer repeat.

Three. Instructions for use

1: when setting the display, eight digital tube display a set value; when in normal work, eight digital tube display the current time when tired;

2 tiring time value setting:

Push \( \square \) LED flash push \( \square \) to set the first number \( \square \) then push \( \square \) to select the second number and use \( \square \) to increase By analogy, set the third - bit and fourth - bit values; wait for 8 seconds, flicker stop, set up. The set value is automatically stored in the machine.

3, use the reset button or reset terminal or re power can make the instrument to work, when completed, according to the set working mode of action relay.

### MB48N single set double digital four bit tachometer

First, product overview

1 the speed control value is set arbitrarily within the range of display, and the set value is not lost.

2 technical parameters:
Measurement input: 1 pulses per rotation; measurement range: 60~9999RPM;

Two. Function setting
The function number set 27-Z, Z for relay working mode, only set to 1 and 3. specific setting methods see the previous description, no longer repeated here.

Three. Instructions for use

1 display: when the upper display speed value; lower speed display control value.

2 set of speed control values:
Push LED flash push to set the first number then push to select the second number and use to increase By analogy, set the third - bit and fourth - bit values; wait for 8 seconds, flicker stop, set up. the speed control value is set

3, the measured pulse is directly input to the CNT terminal, and the measured result is speed (RPM). When the speed display value reaches or exceeds the control value, the relay action and the control value return error is four words. The wiring method is shown in the preceding description.

MB48 FR four bit rate multiplex speed and frequency meter

First, product overview

1 key settings, in the range of display arbitrarily set speed, frequency control value, set value is not lost power.

2 technical parameters:
Measurement period: 1 second; measurement range: 0~9999 (given unit); two, function setting
The function number is set to 28-Z "Z is the relay working mode and can only be set to 1 and 3. The specific setting method is shown in the previous description. It is no longer repeated here.

Three. Instructions for use

1 display: when working on the display of the current value; the lower display control value. The current display value = the measured frequency value * A / b a, the b value is set by the user. When the frequency is measured, the A is set to 1, and the A is set to 60 when the speed is measured; and the number of pulses per rotation is generally expressed by B.

2 control value, a, b value setting:
Push LED flash push then push to select the second number and use to increase By analogy, set the third - bit and fourth - bit values; wait for 8 seconds, flicker stop set up.
Push \( \text{囗} \) to set the second line it is A value

Then push \( \text{囗} \) again only the fist led is light use the same way to set the value it is B value

3, when the measured pulse is directly input to the CNT terminal, the instrument will enter the working state. The display value reaches or exceeds the control value, and the relay action and the control value return error is four words. The wiring method is shown in the preceding description.

**MB48JR four bit reversible band multiplex counter**

First, product overview

1 can be arbitrarily set the value of the value, set value and the current value of the value of power down will not be lost.

2 technical parameters:

Counting range: 0~9999; ratio range: 0.001~9.999; maximum counting speed: 10 thousand times per second;

Two. Function setting

The function number set 29-Z "or" 30=Z ", Z for relay working mode, setting range 1~6, specifically containing

The meaning and setting method is shown in the previous description, which is no longer repeated.

Three. Instructions for use

1 display: when the upper display count down display settings.

2 the setting of value and multiplier value:

Push \( \text{囗} \) LED flash push \( \text{囗} \) to set the first number \( \text{囗} \) then push \( \text{囗} \) to select the second number and use \( \text{囗} \) to increase By analogy,set the third - bit and fourth - bit values; wait for 8 seconds, flicker stop set up.

If the function number is set to 30-Z (band multiplying), press the key, then the upper number of digital tubes represent the count setting

Set the value of the lower rate of said digital tube value, the same method, set the count and the key and the key can be used

The multiplier value.

The measured pulse is directly input into the CNT end, and the instrument enters the working state, and the value reaches or exceeds the set.

Value, the relay acts as set. The wiring method is shown in the preceding description.
**MB48J8R eight bit reversible band multiplex counter**

First, product overview
1 can be arbitrarily set the value of the value, set value and the current value of the value of power down will not be lost.

2 technical parameters:
Counting range: 0~99999999; ratio range: 0.001~9.999;
Maximum count speed: 10 thousand times per second;

Two. Function setting
The function number is set "31-Z" or "32-Z". Z is the working mode of the relay. The setting range is 1~6. The specific meaning and setting method is described before, and is not repeated here.

Three. Instructions for use
Push 🔄 LED flash push 🍇 to set the first number 🍇then push 🔄 to select the second number and use 🍇 to increase By analogy,set the third - bit and fourth - bit values; wait for 8 seconds, flicker stop set up.
If the function number is set to 32-Z (band multiplying), then the number is set and then the key, only on the top.
A row of digital tubes is bright, which represents a multiplier value; in the same way, a multiplier value can be set with keys and keys.
3 the measured pulse is directly input into the CNT end, and the instrument enters the working state, and the value reaches or exceeds the set. Value, the relay acts as set. The wiring method is shown in the preceding description.

**Attention**

1 before use, the instrument is heated for ten minutes.
2 instrument avoids the work in the environment of corrosiveness, large dust, strong vibration and strong electromagnetic interference.
3 the instrument is kept in a place where there is no direct light, the temperature is at -10~+70 degree, and the humidity is below 60%. Do not contact with organic solution or oil pollution.