PEMENOL B081N5NG8Q Timer Delay Relay Controller Board with Digital LCD Display User Manual

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PEMENOL B081N5NG8Q Timer Delay Relay Controller Board with Digital LCD Display

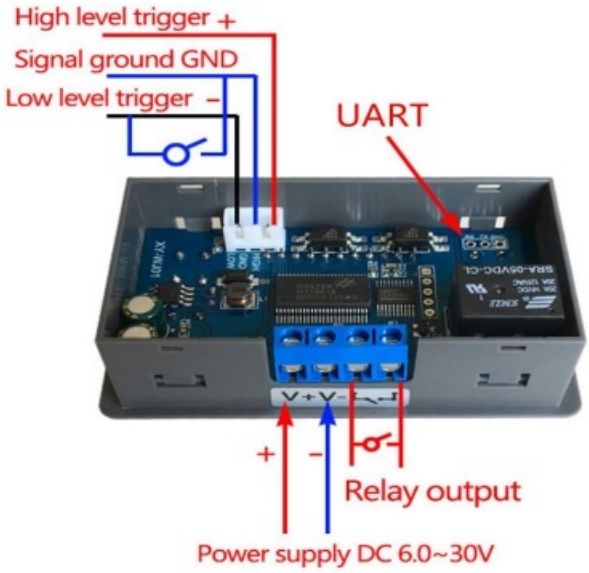
DC 6.0V-30V Wiring Diagram

Shared power supply for work and load power.

AC 220V Wiring diagram

Independent power supply for work and load power.


OUT 0079
P0:0P
DELAY RELAY MODULE XY-WJ01
Load
AC 220V
DC
6V-30V


High level trigger +
Signal ground GND
Low level trigger –
UART
V+V-
+
–
Relay output
Power supply DC 6.0~30V

Brief Intro

It is a multifunctional delay relay module. With an LCD display, very clear and easy to use. It can be widely used in Smart homes, Industrial control, Automatic irrigation, Indoor ventilation, and equipment Protection.

Highlights

- LCD display
- Support high and low level trigger
- Support button trigger
- Emergency stop function
- Sleep mode, Wake up with any button
- Automatically save parameters
- Support UART Setting
- Independent of parameters
- With case, beautiful and practical
- Support reverse connection protection

- Delay high precision
- Continuously adjustable from 0.01 seconds to 9999 minutes;
- Optocoupler isolation. Enhanced anti-jamming capability;
- Multiple parameters are displayed simultaneously

Parameter Details

1	Working Voltage	DC 6V-30V		
2	Control Load Current	10A(Max)		
3	Quiescent Current	15mA		
4	Working Current	50mA		
5	Working Temp	-40~85℃		
6	Operating Humidity	5%-99%RH		
7	Suitable for battery	Storage/Lithium Battery		
8	Trigger signal source	High Level Trigger (3.0V~24V)		
		Low Level Trigger (0.0V~0.2V)		
		Switching Control (passive switch)		
9	Reverse protection	√		
10	Physical dimension	79*44*26mm		

Function Intro

1. **Trigger delay.** The module will begin to delay after getting a trigger signal and then the output terminal status will change after delay. This function can be used in circuit protectionfor improper operation or preventing instantaneous high current.
2. **Cycle timing.** The load switch changes the status according to the specified time after setting the cycle time.
3. **Delayed power off.** It can be applied to the use of control lights which need to be powered off after some time.
4. **Circuit switch.** Protect the circuit from damage caused by the long operation.

Working mode

PO: Relay will keep ON for time OP after getting the trigger signal and then relay OFF; The input signal is invalid if

get the trigger signal again during delay time OP.
P1: Relay will keep ON for time OP after getting trigger signal and then relay OFF; The module will restart-delay if get trigger signal again during delay time OP
P2: Relay will keep ON for time OP after getting the trigger signal and then relay OFF; Module will reset and stop timing if get trigger signal again during delay time OP.
P3: Relay will keep OFF for time CL after getting trigger signal and then relay keeps ON
P4: Relay will keep ON for time OP after getting trigger signal and then relay keep OFF for time CL and then loops the above action. The module will reset and stop timing. The relay will keep the initial state if get a trigger signal again during loops. The number of cycles (LOP) can be set. The relay will keep OFF if the loop ends.
P5: Relay will keep OFF for time CL after getting the trigger signal and then relay keep ON for time OP and then loops the above action. The module will reset and stop timing and relay will keep initial state if get trigger signal again during loops. The number of cycles (LOP) can be set. Relay will keep ON if the loop ends.
P6: Relay will keep ON for time OP after power on without getting trigger signal and then relay keep OFF for time CL and then loops the above action. The number of cycles (LOP) can be set. Relay will keep OFF if the loop ends.
P7: Relay will keep OFF for time CL after power on without getting trigger signal and then relay keep ON for time OP and then loops the above action. The number of cycles (LOP) can be set. Relay will keep ON if loop ends.
P8: Signal hold function. Timing resets and relay keep ON if getting trigger signal. Relay OFF after delay time OP when the signal disappears. Reset delay time when get trigger signal again during timing.
P9: Signal hold function. Timing resets and relay keep OFF if getting trigger signal. Relay ON after delay time CL when the signal disappears. Reset delay time when get rigger signal again during timing.

P0~P7 mode	System will start to Timing if short press button ‘ Pause ’ when system does not get trigger signal. Display screen will display ‘OUT and flashing and Relay OFF when Pause timing if t he system has been timed.
P8~P9 mode	Short press/long press function cannot be used when‘Pause’button as a trigger signal in ru nning interface.

Timing range

Range Continuously adjustable from 0.01 seconds to 9999 minutes Enter the settings interface-OP/ CL Parameter settings interface (Flashing-Short press the button ‘Pause’-Select the timing range Pay attention to the position where the decimal point moves when the button IS pressed.

- Display XXXX’. No decimal point, the timing range is 1 second 9999 seconds.
- Display XXX.X’. The decimal point is the penultimate, timing range is 0.1 second to 999.9 seconds.
- Display ‘XX.XX’. The decimal point is the third last, timing range is 0.01 second to 99.99 seconds.
- Display X.X.X.X. The decimal point is fully lit, timing range is 1 minute to 9999 minutes. Eg: For example, if you want to set the OP to 3.2 seconds, move the decimal point to the penultimate position, LCD will display ‘003.2’.

Display	Position of decimal point	Range
0000	No decimal point	1 second ~ 9999 secs
000.0	penultimate	0.1 second to 999.9 secs
00.00	The third last	0.01 second to 99.99 secs
0.0.0.0	After every digit	1 minute to 9999 mins

Parameter Description

- **OP:** Turn On time
- **CL:** Turn OFF time;
- **LOP:** Number of cycles. (Range from 1-9999tims; '—-' means unlimited loop)

Parameter Setting

Long presS: keep press button for more than 3second.

1. Enter parameter setting menu by long press button'SET'.
2. Firstly setting the working mode(with flashing reminder); Short press the UP/DOWN button to set the working mode.
3. Short press the SET button to select the working mode and enter the system parameter settings.
4. In the system parameter setting interface, short press the 'SET" button to switch the system parameters you want to be modified, short/long press the UP/DOWN button could modify value.
   Note: Short press 'SET is invalid at mode PO,P1,P2,P3,P7,P8.
5. Short press the pause button to switch the timing unit(1s/0. 1s/0.01s/1min) in the OP/CL parameter modification interface.
6. long press SET button to save the settings parameter and exit the settings interface, after all the parameters are set.

View parameters

In the running interface, short press the SET button to display the current parameter settings of the system, which does not affect the normal operationof the system.

Switch the parameter displayed

It will switch the display content by short press button 'DOWN' in the P5~P6mode(Parameter is Run time or number of cycles

Auto sleep function

Long press button 'Pause' in the normal running interface(P0~P7) to turn onor
off auto sleep function.

- **L-P:** ON,Turn ON auto sleep function. About five minutes, no operation, the LCDbacklight automatically turns off. It can be wake up by any buttons.

- **L-P:** OFF, Turn OFF auto sleep function

UART communication and parameter settings

The system supports UART data upload and parameter setting functions (TTL level) UART: 9600, 8, 1

NO.	Command	Function
1	Read	Read the parameter setting
2	OP:XXXX	Set the minimum delay time for turn ON : 1s
3	OP:XXX.X	Set the minimum delay time for turn ON : 0.1s
4	OP:XX.XX	Set the minimum delay time for turn ON : 0.01s
5	OP:X.X.X.X	Set the minimum delay time for turn ON : 1min
6	CL:XXXX	Set the minimum delay time for turn OFF : 1s
7	CL:XXX.X	Set the minimum delay time for turn OFF : 0.1s
8	CL:XX.XX	Set the minimum delay time for turn OFF : 0.01s
9	CL:X.X.X.X	Set the minimum delay time for turn OFF : 1min
10	LP:XXXX	Number of cycles:1-9999
11	Start	Trigger/Start(Just for P0~P7)
12	Stop	Pause(Just for P0~P7)
13	PX	Set mode P0~P9

Application

- Motor
- Robot
- Smart home
- Industrial control
- Automatic irrigation
- Indoor ventilation

Warm Tips:
It is a relay output module and cannot be used as a power module. It cannot output voltage. The load needs to be connected to a separate power supply. Please read the user manual carefully before use, make sure that the parameters of the device you are using are within the specified parameter range, and carefully check whether the wiring method and setting method are correct.

Package Listing

- 1pcs XY-WJ01 Delay Relay Module

After-Sales

- We have always been keen to provide customers with the best quality service at themost competitive price.
- Looking forward to get progress and growth with all of you.
- For more product questions and inquiries, please send your advice to **sameiyi@163.com**
- Thank you for your purchase!

Documents / Resources

	**PEMENOL B081N5NG8Q Timer Delay Relay Controller Board with Digital LCD Display** [pdf] User Manual B081N5NG8Q Timer Delay Relay Controller Board with Digital LCD Display, B081N5NG8Q, Timer Delay Relay Controller Board with Digital LCD Display

References

- Amazon.com