MINI PLC

MINI PLC
(16 Program Logic Controller)

WYU - PL16A (RELAY OUTPUT)
WYU - PL16B (SSR OUTPUT)

TABLE OF CONTENT

ORDER

1. Feature of product

- ■ Miniature PLC.
- ■ Very low price
- ■ Everybody can use because it is simple controller.
- ■ Additional program device is not necessary.
- ■ It is very easy to install program.
- ■ **Direct linkage up to output 5A**
- ■ DC 24V, power source to be used for sensor is ready.
- ■ About 30% of cost saving in terms of cost of installation.
- ■ Saving space of panel by about 50%.
- ■ Easy maintenance of circuit.
- ■ AC power voltage is 85~264A which can be used extensively.

2. Overview

It is a device to program 16 basic electric circuits after selection which commonly use one-chip micom. Though control panel was manufactured by complicated wiring with relay and timer etc. before in order to produce simple electric circuit, now it is possible to produce controller only by simple Mini-PLC.

3. Structure of product

It is structured of 4 input, 2 output, 2 pair of timer, switch to set the program, DC power source for sensor.

■ 4 Input : Input circuit of current which can be directly connected to TR, relay and sensor etc. with DC24V / 10mA of specification.

■ 2 Output : Relay output linkage with the AC250V/5A and SSR AC240V/3A of specification.

■ 2 Pairs of timer : 2 There is DIP S/W which selects the two pairs of timer by 1 second, 10 seconds, 1 minute and 10 minutes and time to be selected can be set in detail by volume. For instance, volume can be set up to 10 seconds depending on the selection of 0-100% of volume after deciding 10 seconds.

■ Switch to set the program : 16 types (from 0 to 15) of electric circuit program, which is contained by 4 DIP S/W, can be set.

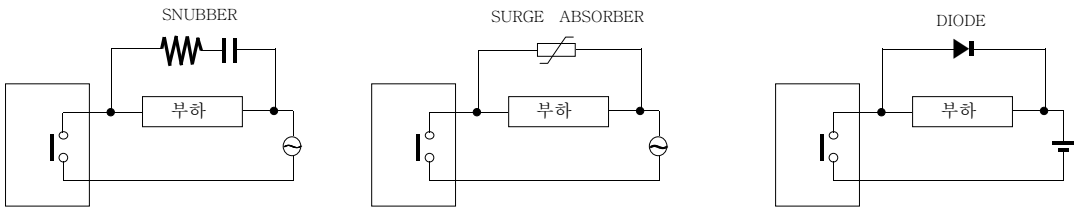
■ DC power source for sensor : It is a regular output of DV24V/100mA and can be used as a power source for sensor

4. Precaution in using

■ Input of electric power is AC85~264V and it must be within the specification. When it is connected to the terminal of power, it must be accurately linked.

■ If it is installed in the place with bad ventilation, heating from the device itself must be cautioned and at least 10 cm distance must be secured in the vicinity of other material of heating.

■ In case of linkage of load to the output, protective circuit must be used as manifested in following picture..



AC LOAD DC LOAD

■ When program, DIP S/W to set timer are set, power source must be off beforehand.

■ DC 24V power source for sensor might cause error of PLC if more than 100mA load is linked. Standard current must be used and precaution must be made in order not to cause power short at the circuit.

■ In order to control time of output by use of self timer, minimum motion time must be set more than about 500ms.

■ Bolt of terminal must not be damaged by excessive power.

■ Please inquire to the A/S if internal fuel is off.

5. Specification of electricity

■ General specification

Remote controlled power	AC 110~240V (50/60Hz)	Internal voltage	One minute, AC1500V
Variable voltage rate to be allowed	85~100%		Control power terminal-input/output terminal Control power terminal-sensor terminal Input terminal-output terminal
Power for sensor	DC 24V 100mA		
Temperature of surrounding to use	0。C ~ +50。C		
Temperature of surrounding to preserve	-20。C ~ +70。C	Insulation Resistance	More than 100MQ (DC500V)
Power off	10ms 이내		

■ Input specification

I N P U T C O N T A C T	4
I N P U T	NPN OUTPUT (Open Collector)
I N P U T O N V O L T A G E O N	8mA 이상
I N P U T O F F V O L T A G E	1mA 이하
I N P U T I M P E D E N C E	2.4kΩ
I N P U T P U L S E	2.0 ms
D I S P L A Y	LED
T E R M I N A L	EXTERNAL TERMNIAL
	PHOTO-COUPLER

■ Output specification

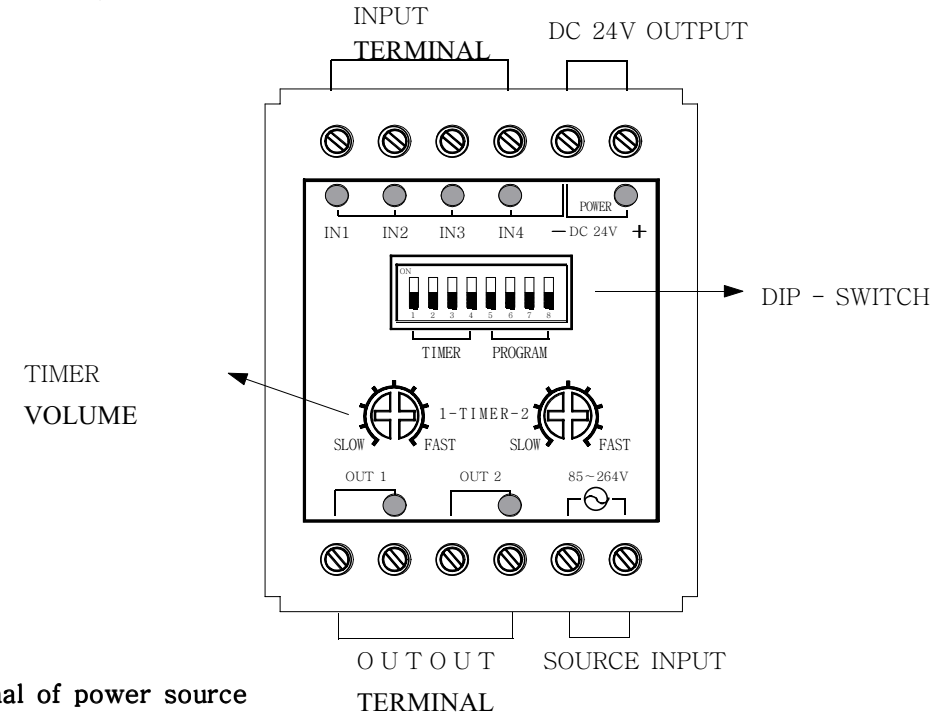
M O D E L	WYU - PL16A	WYU-PL16B
O U T P U T	2 CONTACT	
C O N T A C T	1a	
CAPACITY OF LOAD	5A / AC 250V, 5A / DC 30V	3A / AC 240V
RESPONSE TIME	OFF→ON 10mS ON→OFF 10mS	
ELECTRIC LIFE	1000	-
	100000	100000 h
DISPLAY MEATHOD	LED	
	TERMINAL	

■ Timer specification

T I M E R R A N G E	※1 RANGE (1sec, 10sec, 1min, 10min)
T I M E R	± 1% ~± 2%

※ Timing set between T1 of timer 1 and T3, T2 and T4 is identical.
Please set timer T1 and T3 by timer 1 volume and T2 and T4 by timer 2.

6. Name of each part and function



① Input terminal of power source

. AC 85~264A power supply terminal

② Output terminal

. Out 1, out 2 output terminal

. Output at the linkage of relay A

. Relay output : regular 5A/250VAC, 5A/30VDC.SSR output : regular 3A(effective 1.5A) / AC240V

③ Power source

. Sensor by use of DC power source and power supply terminal of control circuit.

.DC 24V/100mA regular

④ Input terminal

. Input terminal

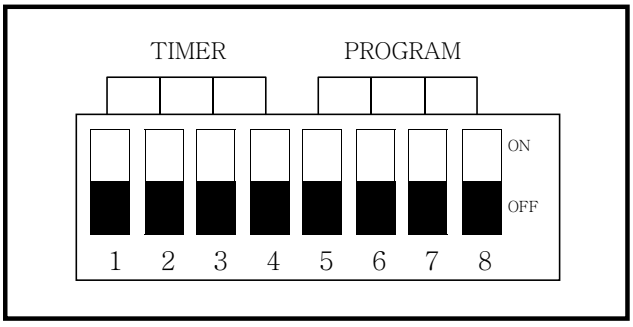
. Input type is photo coupler with current control type.

. Input is by switch with the electric type of 24V/10mA.

. It is possible to use input button switch and NPN(open collector) output sensor switch.

⑤ DIP-SW to set program and tire

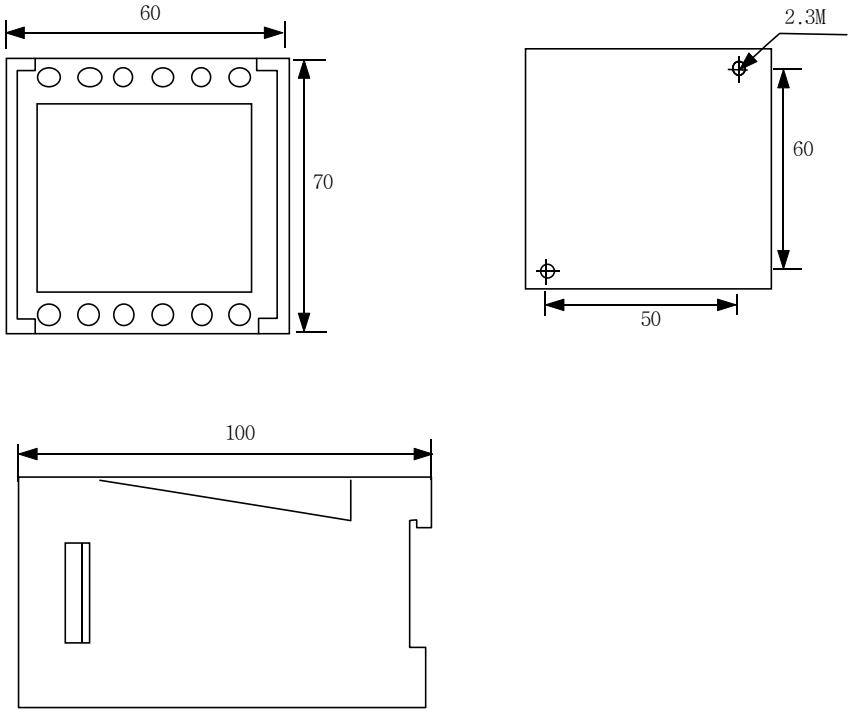
. Point of DIP-SW is as manifested in following picture.



7. External feature and dimension

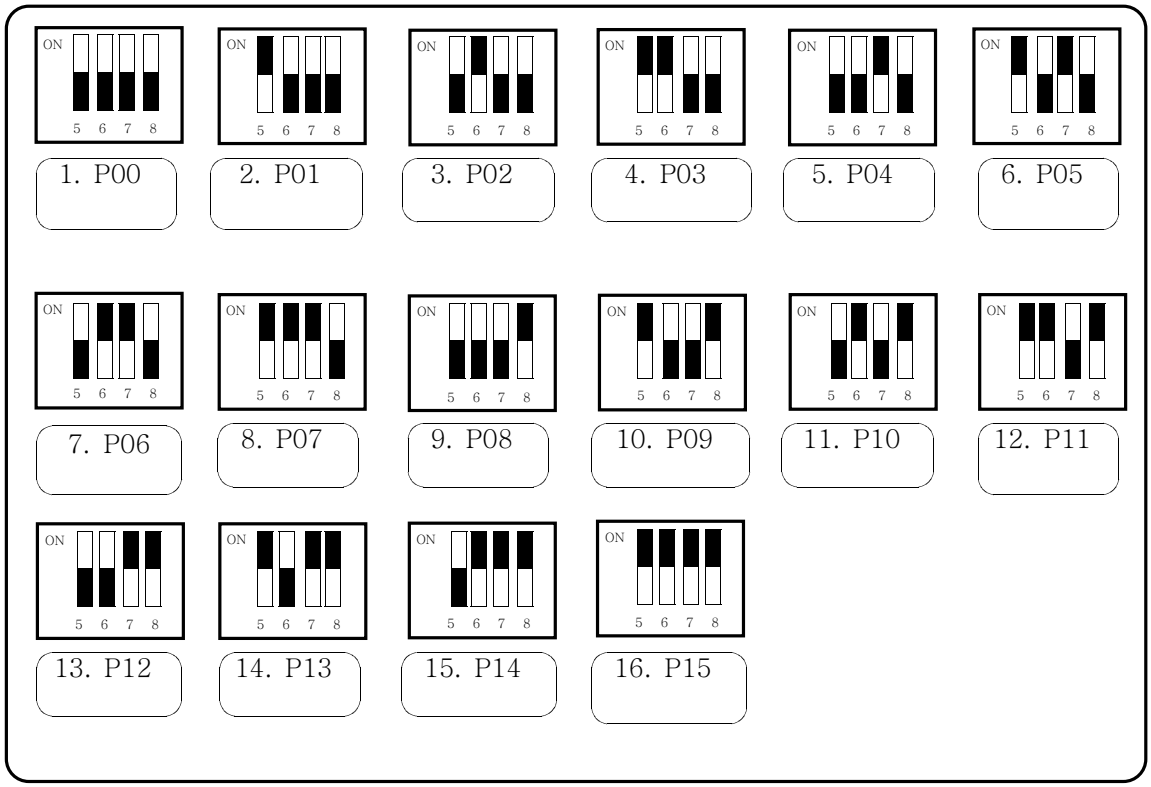
- SHAPE

- DIMENSION

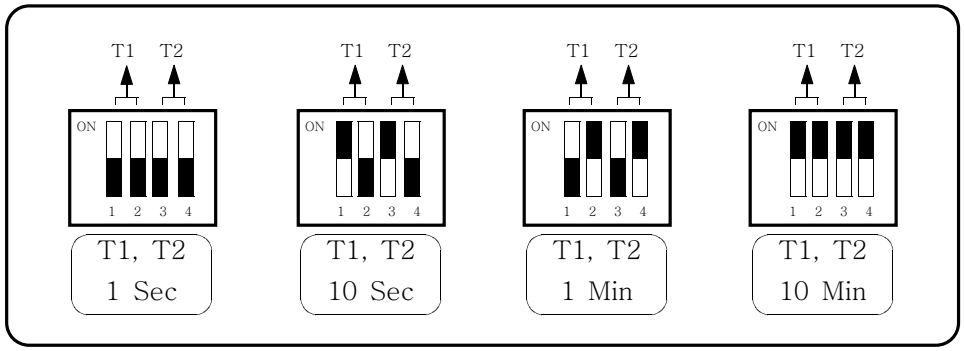


8. Description to control DIP-SW

① Program DIP describe the status of switch control.



② Tire DIP- describe the status of switch control.



③ Volume of tire to set

. Tire T1 and T3 are set by timer 1 volume.
. Tire T2 and T4 are set by timer 2 volume.
. For instance, if DIP S/W is set at 1 sec. It operates at 1 sec. in case of maximum L of VR. When it is minimum (S), it is set to 0.