



# 丞基技研股份有限公司

## User Manual

**Model : Auto-feedback Current Control 512  
Digital Power Supply**

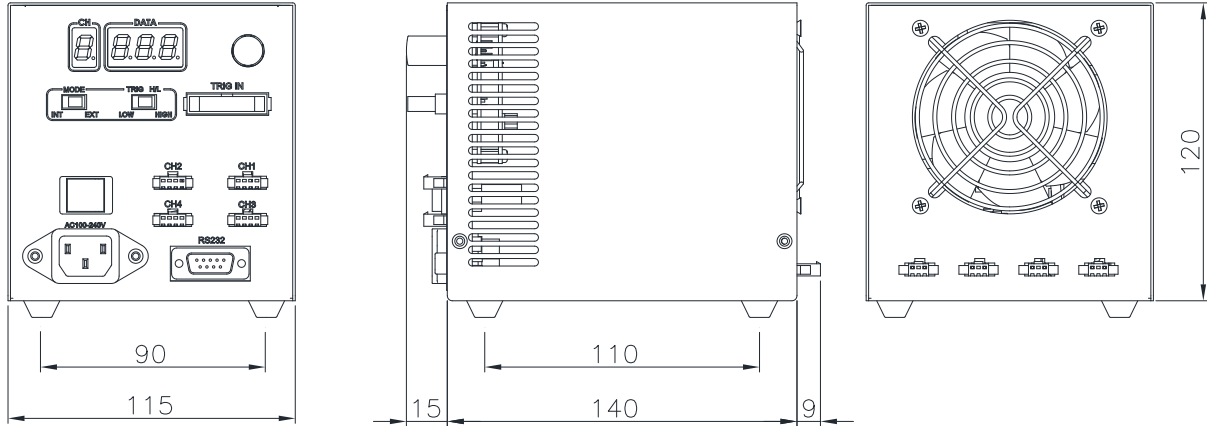
**Model P/N : GLC-DPI2-4A**

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# GLC-DPI2-4A USER MANUAL

## I. Product Specifications

i. Dimensions:



UNIT: mm

ii. Specifications Chart:

Model	GLC-DPI2-4A	
Mains Voltage	100-240 VAC	
Mains Frequency	50/60 Hz	
Control Method	Manual, External On/Off Control, RS232	
Dimensions	120*115*140 mm (excluding the projection)	
SM4P Output Connector Definition		PIN 1: OUTPUT + PIN 3: OUTPUT -
SM3P Connector Definition (For LED lighting additional fan use only)		PIN 1: Fan_DC24V PIN 3: Fan_DC0V

NOTE : The controller does not support hot-swapping; please turn on the controller after the LED connections are completed.

## II. Definitions of Dip Switch and External Trigger



1. MODE: Select modes.

INT: Control manually by knob. EXT: Control by RS232

2. TRIG H/L: Set trigger logic. (If there is no need to trigger externally, switch to LOW.)

LOW: negative logic. Dimmer is outputted if there is no external signal or LOW signal is connected. Dimmer is not outputted when it is connected with HIGH signal.

High: positive signal. Dimmer is not outputted if there is no external signal or LOW signal is connected. Dimmer is outputted when it is connected with HIGH signal.

3. TRIG IN Definition

	PIN	1	3	2、4
	Def.	CH1 trigger	CH2 trigger	DC 0V
Triger input range : DC 0~24V      LOW: 0~ 0.7V      High: 3.3V~24V				

## III. Definitions of Manual and External Control

1. Manual Control by Knob



Press knob and switch panel to display the channel to control. Turn the knob to change the output segment.

2. RS232 Control



A. PIN definition:

PIN NO.	Definition
2	Transmitted Data
3	Received Data
5	Signal Ground

B. RS232 Communications specifications:

Baud Rate: 115200

Byte Size: 8 bits

Parity: None

Stop Bit: 1 stop bit

## C. Register Address Description:

Register Address	Description	Value Range
0x0001	Control Value for Ch1	0x0000 to 0x01FF
0x0002	Control Value for Ch2	

## D. Protocol:

Modbus Protocol format (ASCII only)

## a. Single Register Write Command:

Fill in the Register Address and Register Value in write command to modify output value.

Example: To set Ch1 output level 0x01AB.

	Header (1 char)	Additional Address (2 char)	Function (2 char)	Register Address (4 char)	Register Value (4 char)	Check (LRC) (2 char)	Trailer (2 char)
<b>Send form PC</b>	:	0 1 <sub>(fixed)</sub>	0 6	<b>0 0 0 1</b>	<b>0 1 A B</b>	4 C	CR LF
<b>Reply from Device</b>	:	0 1	0 6	0 0 0 1	0 1 A B	4 C	CR LF

Note1: The LRC calculation is to sum up the accumulation of data. (Don't carry. Fetch 8 bits only.) And fetch two's complement. The LRC calculation for the example above is:  $0xFF - (0x01 + 0x06 + 0x00 + 0x01 + 0x01 + 0xAB) + 0x01 = 0x4C$ .

Note2: Start sign ":" is coded 0x3A.

Note3: End signs CR (Carriage Return) and LF (Line Feed) are control characters, and coded 0x0D and 0x0A respectively.

## b. Multiple Register Write Command:

Fill in the Starting Register Address and No. of Register to write several consecutive data.

Example: To set Ch1~Ch2 output level 0x01F1, 0x01CD.

	Header	Additional address	Function	Starting Address	Quantity of Register	Byte Count	Registers Value	Check (LRC)	Trailer
<b>Send form PC</b>	:	0 1 <sub>(fixed)</sub>	1 0	0 0 0 1	0 0 0 2	04	<b>01 F1 01 CD</b>	2 8	CR LF
	Header	Additional address	Function	Starting Address	Quantity of Register	Check (LRC)	Trailer		
<b>Reply from Device</b>	:	0 1	1 0	0 0 0 1	0 0 0 2	E C	CR LF		

## c. Read Command:

Fill in the Starting Register Address and No. of Register to read several consecutive data.

Example: Read the value of output level of Ch1 and Ch2, and assuming that CH1 is 0x0080, and CH2 is 0x0030.

	Header	Additional Address	Function	Starting Register Address	No. of Register	Check (LRC)	Trailer
<b>Send form PC</b>	:	0 1 <small>(fixed)</small>	0 3	<b>0 0 0 1</b>	<b>0 0 0 2</b>	F 9	CR LF
	Header	Additional Address	Function	Byte Count of Data	Data	Check (LRC)	Trailer
<b>Reply from Device</b>	:	0 1	0 3	0 4	0 0 8 0 0 0 3 0	4 8	CR LF

Note1: Byte Count of Data is the quantity of reply data from device. Because every Register Value saves 2Bytes data, Byte Count of Data is two times as much as No. of Register.