GC-8012

Power supply module

User manual

Document version V3.21（2022/03/15）

Revision History

Version	Date	Reason
V1.00	2022/09/16	Create
V1.10	2022/09/16	Modify product description

Contents

1. Introduction

1.1 Overview

The GC-8012 module is an I/O module power supply relay module. This module can be used with GCAN-PLC-400/510/511 or GCAN-IO-8000/8100/8200/8300 series couplers to ensure the normal power supply of subsequent I/O modules. When the number of I/O modules mounted on GCAN-PLC-400/510/511 or GCAN-IO-8000/8100/8200/8300 exceeds 16, Due to the power loss of the previous I/O modules, the subsequent I/O modules may experience insufficient power supply, in order to ensure that the I/O module can achieve the expected function and normal use, when the mounted I/O module exceeds 16 pieces, it is necessary to add a GC 8012 power supply relay module after the 16th piece to provide stable working voltage for subsequent I/O modules.

1.2 Performance characteristics

- Power supply:DC+24V
- Maximum input current:400mA (total GC-bus current)
- Operating temperature: -40℃ ~+85℃
- Size: 100mm*69mm*12mm

1.3 Typical application

- Provide stable working voltage for subsequent I/O modules.

2. Installation

This chapter will describe the installation method, wiring method, meaning of the indicator and meaning of the interface of the GC-8012 module.

2.1 Module fixing

The installation method of GC-8012 module as shown in Figure 2.1 and a flat-blade screwdriver is needed for auxiliary installation.

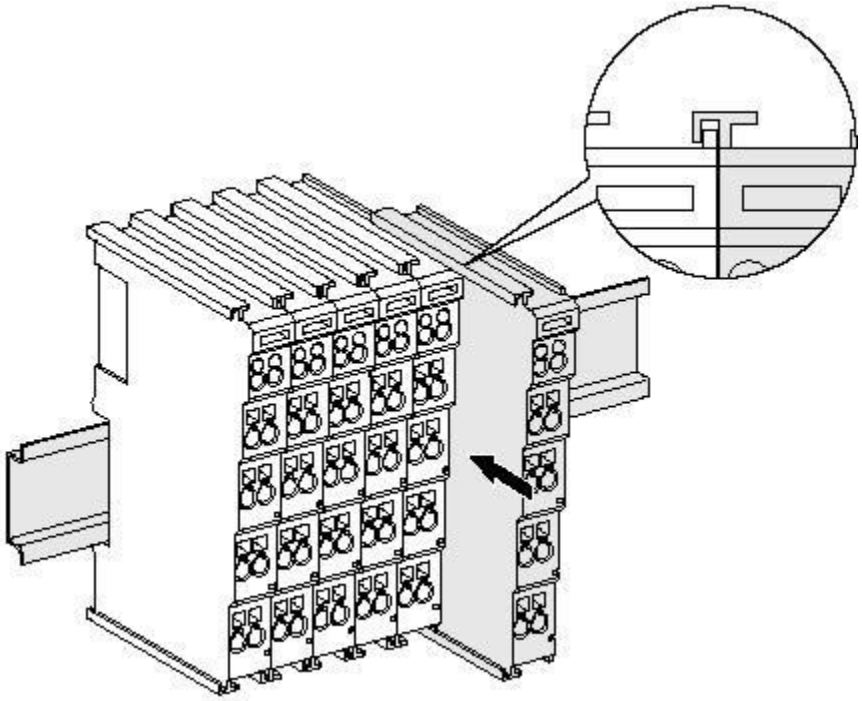

Figure 2.1 Installation of GC-8012 module

First install the GCAN-PLC on the guide rail and plug the GC-8012 along GCAN-PLC's right side until the lock is stuck.

2.2 Wiring method

The power wiring as shown in figure 2.2. First, use a flat-blade screwdriver to insert into the square hole, hold the top edge of the metal sheet in the square hole, and press toward the hole. Then, insert the wire into the hole. After plugging in, pull out the screwdriver and the wire can be firmly locked in the hole.

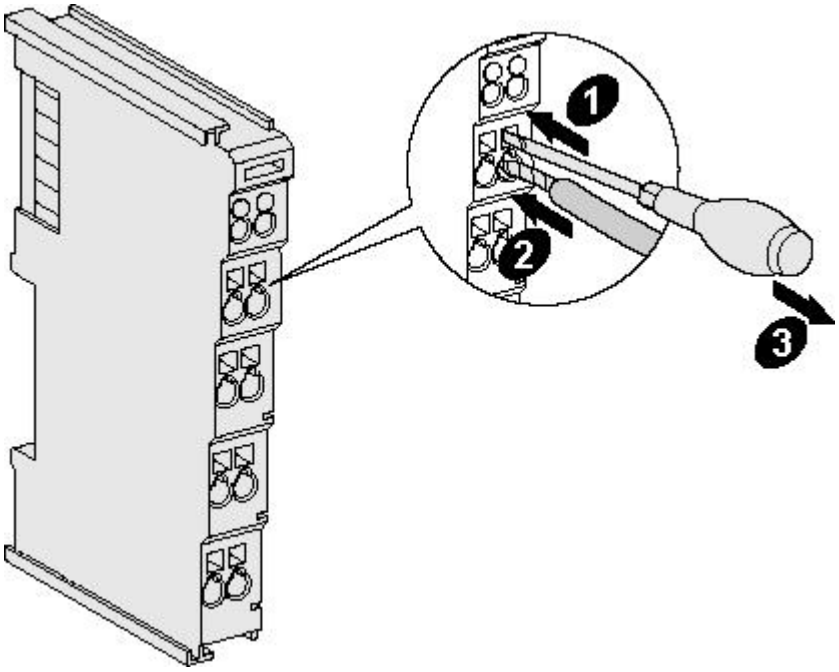

Figure 2.2 Wiring method of GC-8012 module

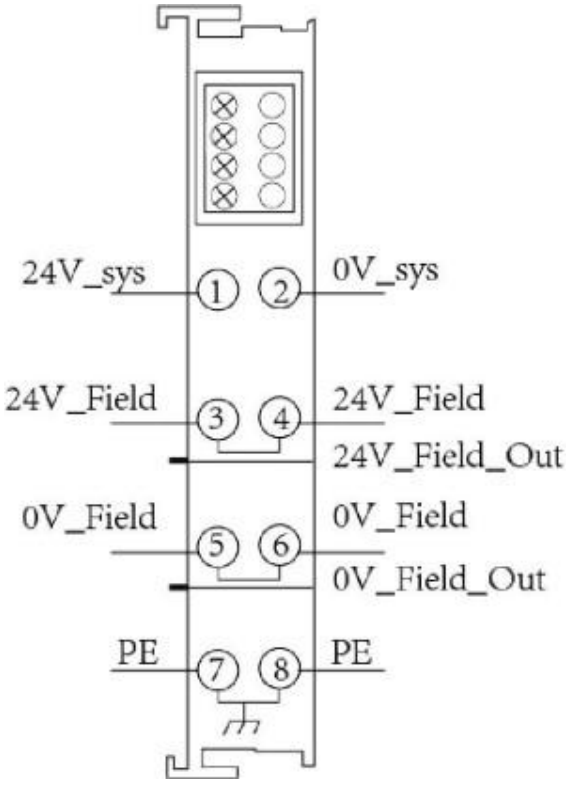

Figure 2.3 GC-8012 module terminal block

The serial numbers and their meanings corresponding to each terminal of GC-8012 are shown in Table 2.1. Users do not need wiring when using, GC-8012 can supply power to subsequent I/O modules by directly inserting them.

Terminal	No.	Definition
24V	1	Power 24V input
0V	2	Power GND
+	3	IO power positive 24V
+	4	IO power positive 24V
—	5	IO power negative 0V
—	6	IO power negative 0V
PE	7	shield
PE	8	shield

Table 2.1 GC-8012 Module Terminal Definition

2.3 System status indicator

The GC-8012 module has 4 running indicators to indicate the running status of the equipment. See Table 2.2 for the specific indication functions of the indicator lights.

Indicators	status	Indicate status
1	Always bright	IO-BUS power supply is normal
	not bright	IO-BUS not powered
2	Always bright	IO-BUS power supply is normal
	not bright	IO-BUS not powered
3	Always bright	IO-BUS power supply is normal
	not bright	IO-BUS not powered

Table 2.2

3. Technical Specifications

Interface characteristics	
Supply power	DC+24V
Input current (Max.)	400mA(total GC-bus current)
Environmental testing	
Operating temperature	-40℃~+85℃
Permissible relative humidity	95%RH，no condensation
EMC test	EN 55024:2011-09 EN 55022:2011-12
Vibration/shock resistance	EN 60068-2-6/EN 60068-2-27/29
EMC resistance burst/ ESD	EN 61000-6-2 /EN 61000-6-4
Protection class	IP 20
Basic information	
Dimensions	100mm *69mm *12mm
Weight	50g

4. Disclaimer

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5. Module selection table

GCAN-PLC series products consist of a programmable main control module, several GC series IO modules and a terminal resistance module. GC series IO modules currently include five categories: digital input, digital output, analog input, analog output, and communication extension. The specific selection table is shown in Table 5.1.

I/O	Type	Characteristic	Signal	Channel
PLC Control module	GCAN-PLC-400	CPU:168M	-	-
	GCAN-PLC-510	CPU:400M	-	-
	GCAN-PLC-511	CPU:400M (2CAN)	-	-
Digital input	GC-1008	Digital input (PNP)	24V DC	8-channel
	GC-1018	Digital input (NPN)	24V DC	8-channel
	GC-1502	Counter（200kHz max）	-	2-channel
Digital output	GC-2008	Digital output (PNP)	24V DC	8-channel
	GC-2018	Digital output (NPN)	24V DC	8-channel
	GC-2204	relay output	-	4-channel
	GC-2302	PWM （20Hz~200kHz）	-	2-channel
Analog input	GC-3604	Voltage input, 16 bits	-5~+5V	4-channel
	GC-3624	Voltage input, 16 bits	10V~+10V	4-channel
	GC-3644	Current input, 16 bits	0-20mA	4-channel
	GC-3654	Current input, 16 bits	4-20mA	4-channel
	GC-3664	Voltage input, 16 bits	0~+5V	4-channel
	GC-3674	Voltage input, 16 bits	0~+10V	4-channel
	GC-3804	2-wire PT100, 16 bits	Thermal resistance	4-channel
	GC-3822	3-wire PT100, 16 bits	Thermal resistance	2-channel
	GC-3844/3854/3864	K type / S type / T type thermocouple	Thermocouple	4-channel
Analog output	GC-4602	Voltage output, 16 bits	-5V~+5V	2-channel
	GC-4622	Voltage output, 16 bits	-10V~+10V	2-channel
	GC-4642	Current output, 16 bits	0-20mA	2-channel

	GC-4652	Current output, 16 bits	4-20mA	2-channel
	GC-4662	Voltage output, 16 bits	0~5V	2-channel
	GC-4672	Voltage output, 16 bits	0~10V	2-channel
	GC-4674	Voltage output, 12 bits	0~10V	4-channel
Special module	GC-6101	RS232/RS485 extension	-	-
	GC-6201	GPRS extension	-	-
	GC-6221	4G extension	-	-
	GC-6501	WiFi extension	-	-

Table 5.1 Selection table

Sales and service

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