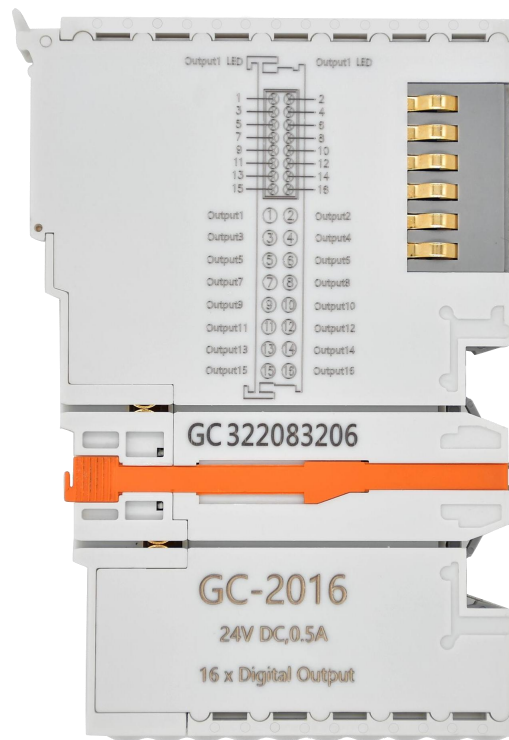


GC-2016

16-channel digital output module

User manual



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1. Introduction

1.1 Overview

The GC-2016 module has integrated 16 digital output channels, which acquires digital signals in real-time and transmits them to the GCAN-PLC-400/510/511 or GCAN-IO- 8000/8100/8200/8300 coupler. This module can be used with any other GC Series IO module to capture and process digital data in industrial automation or distributed control systems.

1.2 Properties at a glance

- 16 output channels
- Nominal voltage: 24V DC(±20%)
- Load types are resistive load, inductive load, lamp load;
- Maximum output current:500mA
- Electrical isolation: 500Vrms (GC-bus)
- Current consumption:120mA
- The bit width output in the process image is 2byte
- No address setting, configuration via bus coupler or controller
- Operating temperature: -40°C ~+85°C
- Size: 100mm*69mm*12mm

1.3 Typical application

- Digital signal output according to the bus coupler or controller.

2. Installation

This chapter will describe the installation method, wiring method, meaning of the indicator and meaning of the interface of the GC-2016 module.

2.1 Module fixing

The installation method of GC-2016 module as shown in Figure 2.1 and a flat-blade screwdriver is needed for auxiliary installation.

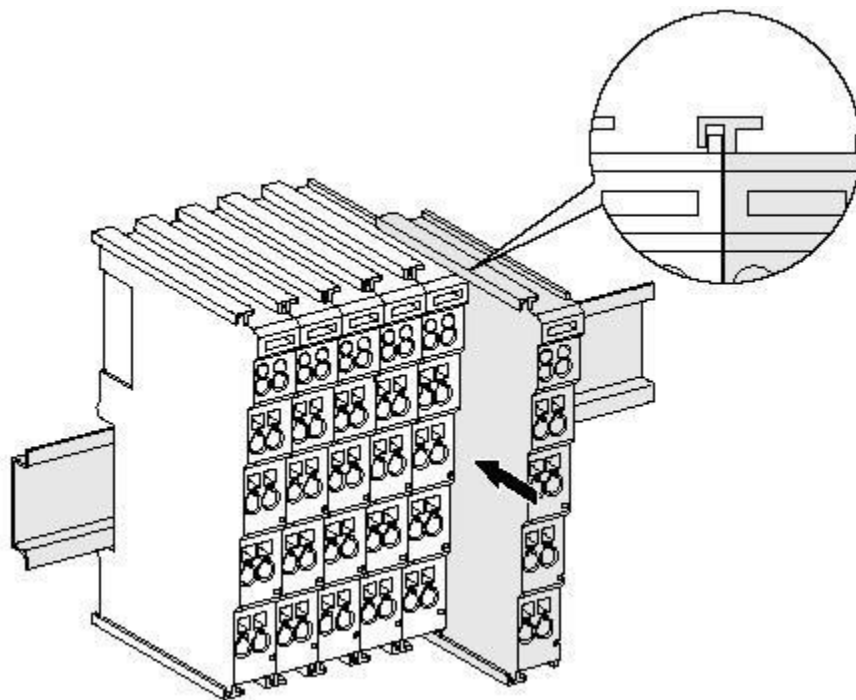


Figure 2.1 Installation of GC-2016 module

First you need to install the fieldbus coupler on the rail, then attach the GC-2016 module to the right side of the fieldbus coupler or other modules to join the assembly. Please insert the GC-2016 module inwards along the slot as shown in Figure 2.1, until the latch locks and makes a "click".

The GC-2016 module needs to be used with GCAN-PLC-400/510/511 or GCAN-IO-8000/8100/8200/8300 series couplers, and can be directly powered by the couplers, so there is no need for additional power supply separately.

2.2 Wiring method

For a cable using a flat-blade terminal connector, align the terminal connector with the round hole of the corresponding channel and insert it; when removing the wire, use a flat-head screwdriver, insert it into the corresponding square hole of the channel to be removed, and press down firmly (or Slight prying), at this time the clips in the corresponding round holes will loosen, and the cables can be pulled out easily

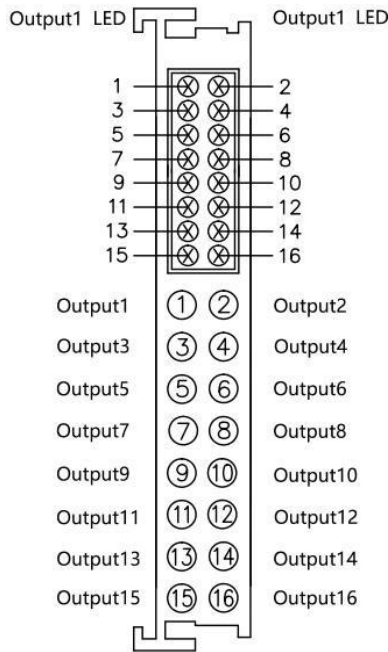


Figure 2.2 GC-2016 module wiring terminal block

The wiring terminal block of GC-2016 module is shown in Figure 2.2. GC-2016 can access up to 16 digital output signals. The definition of each terminal is shown in Table 2.1.

Terminal	Meaning
output1	digital output1
output2	digital output2
output3	digital output3
output4	digital output4
output5	digital output5
output6	digital output6
output7	digital output7
output8	digital output8
output9	digital output9
output10	digital output10
output11	digital output11
output12	digital output12
output13	digital output13
output14	digital output14
output15	digital output15
output16	digital output16

Table 2.1 GC-2016 module terminal definition

When using, please connect the digital output signal to the terminal of GC-2016, and connect the reference ground to the IO of GCAN-PLC-400/510/511 or GCAN-IO-8000/8100/8200/8300 series coupler. The power supply is negative (corresponding to pins 5 and 6).

2.3 System status indicator

Indicators	Definition
1	Digital output1 is valid.
2	Digital output 2 is valid.
3	Digital output 3 is valid.
4	Digital output 4 is valid.
5	Digital output 5 is valid.
6	Digital output 6 is valid.
7	Digital output 7 is valid.
8	Digital output 8 is valid.
9	Digital output 9 is valid.
10	Digital output 10 is valid.
11	Digital output 11 is valid.
12	Digital output 12 is valid.
13	Digital output 13 is valid.
14	Digital output 14 is valid.
15	Digital output 15 is valid.
16	Digital output 16 is valid.

Table 2.2 Definition of GC-2016 module indicator lights

The GC-2016 module does not have an error indicator light, please judge Status of the GC-2016 module through the "IO RUN" and "IO ERR" indicators of the GCAN-PLC-400/510/511 or GCAN-IO-8000/8100/8200/8300 series couplers . If the "IO ERR" indicator of GCAN-PLC-400/510/511 or GCAN-IO-8000/8100/8200/8300 series couplers is on, it means that the IO module is not working properly, please check the installation of the module first

3. Technical Specifications

Interface characteristics	
Number of outputs	8
Load types	resistive load, inductive load, lamp load;
Nominal voltage	24V DC(±20%)
output current (Max.)	500mA
Electrical isolation	500Vrms (GC-bus/ Signal voltage)
Current consumption	120mA
Bit width in the process image	output 2 byte
Installation position	In sequential order
Power supply	Powered by GCAN-PLC, current consumption 120mA
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 output, digital output, analog output, analog output, and communication extension. The specific selection table is shown below

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 output	GC-1008	Digital output (PNP)	24V DC	8-channel
	GC-1018	Digital output (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 output	GC-3604	Voltage output, 16 bits	-5~+5V	4-channel
	GC-3624	Voltage output, 16 bits	10V~+10V	4-channel
	GC-3644	Current output, 16 bits	0-20mA	4-channel
	GC-3654	Current output, 16 bits	4-20mA	4-channel
	GC-3664	Voltage output, 16 bits	0~+5V	4-channel
	GC-3674	Voltage output, 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	-	-

Sales and service



Shenyang Vhandy Technology Co., Ltd.

Address: Room 401, D11 Block, SISP., Hunnan District, Shenyang, Liaoning, China

E-mail: info@gcanbus.com

Tel/ Whatsapp: +86-13644001762

Website: gcanbus.com