



# GLOFA-GM6

Programmable Logic Controller

## ■ Features

- High performance features with compact size
- High-speed processing using dedicated CPU
- Designed by international standard language (IEC61131-3): IL, LD, SFC
- Max. I/O points: 384 points



## ■ Specifications

GM6		GM6-CPUA	GM6-CPUB	GM6-CPUC	Remark
Operation method		Cyclic execution of stored program, Time-driven operation, Internal task operation			
I/O control method		Scan synchronized batch processing method (Refresh method)			
Program language		IL (Instruction list) / LD (Ladder diagram) / SFC (Sequential function chart)			
Number of Instructions	Operator	LD: 13, IL: 20			
	Standard function	194			
	Standard function block	12			
	Special function block	Each special module has its own special function block			
Processing speed	Operator	0.5 $\mu$ s/instruction			
	Standard function	0.5 $\mu$ s/step			
	Standard function block				
Programming memory capacity		68K			Built-in flash memory (128K)
I/O points	With 32-pt modules	192 points			
	With 64-pt modules	384 points			
	With remote I/Os	512 points			
Data memory	Direct variable area (DVA)	2~8K			Setting in GMWIN
	Symbolic variable area (SVA)	30K - Direct variable area			
Timer		No limitation. Time range: 0.001~4294967.295 sec (1193 hours)			20 bytes per 1 timer in SVA
Counter		No limitation. Count range: -32,768~32,767			8 bytes per 1 counter in SVA
Operation mode		RUN, STOP, PAUSE, DEBUG			
Data retention at power failure		Set to 'Retain' at data declaration			
Number of program blocks		100			
Program type	Task	Scan	100 - (Number of program blocks in task)		8 in total
		Time-driven	8		
		External interrupt	8		
		Internal	8		
		Initialization	1 (_INIT)		
Self-diagnostic functions		Watchdog timer, Memory error, I/O error, Battery error, Power supply error			
Restart mode		Cold, Warm			
Base type		4/6/8/12 slot *1)			Expansion is not available
Built-in functions		• Cnet (RS-232C) *2)	• PID control • Cnet (RS-422/485) • RTC function	• PID control • Cnet (RS-232C) *2) • HSC (50kHz) • RTC function	
Internal current consumption		170mA	210mA	170mA	

\*1) In case of GM6-B12M, the module installed in slot number 8 or later is designated as base number 1 and slot number 0 or later; the suitable power module for GM6 B12M is GM6-PAFC, which can't support an analogue module. For analog modules or TC module, you are supposed to use GM6-PAFB or GM6-PDFB considering internal current consumption of each module.

Communication modules are not to be installed in after slot number 7.

\*2) Built-in RS-232C port: 4 (Rx), 7 (Tx), 5 (SG)



# GLOFA-GM6

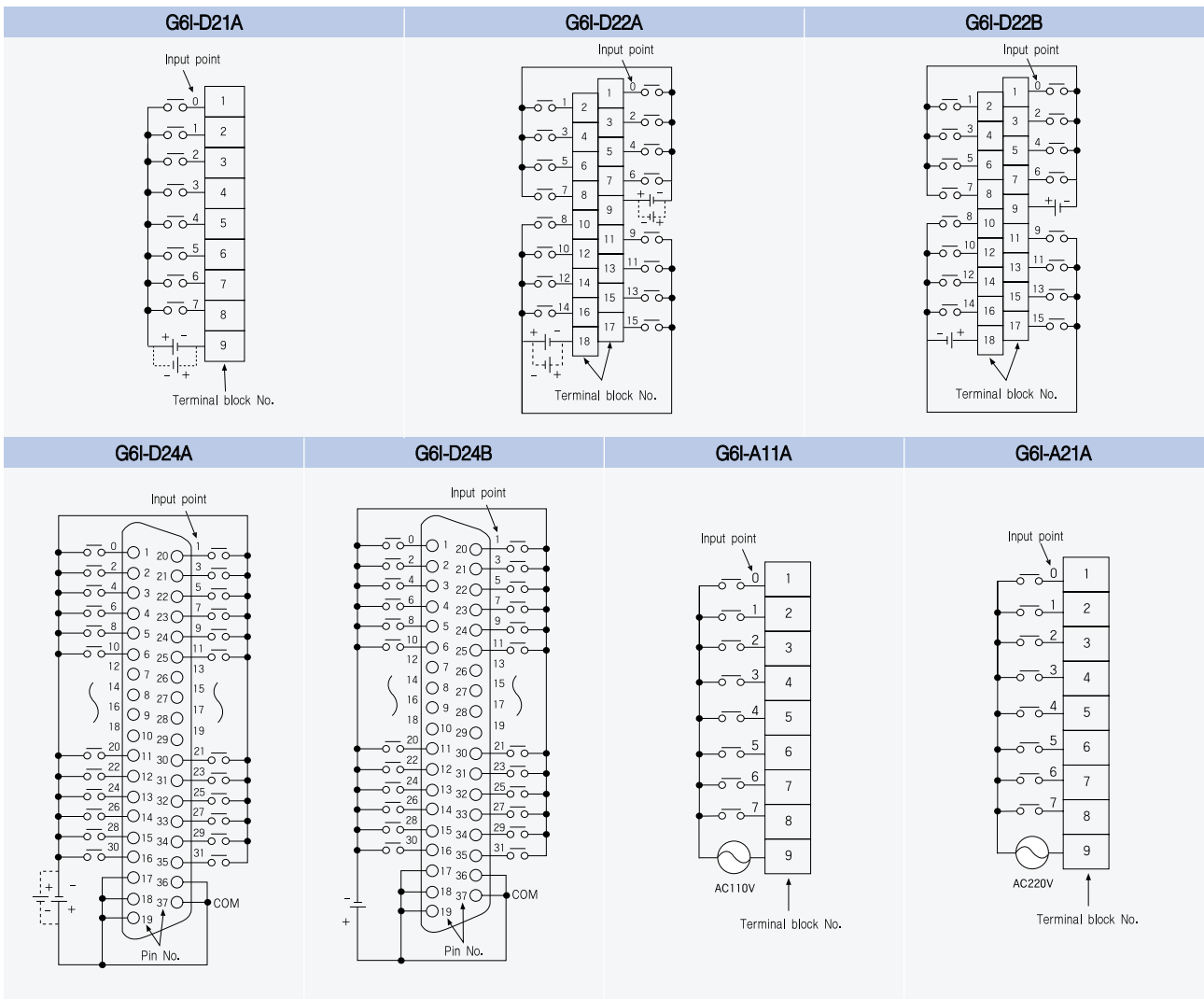
Programmable Logic Controller

## Input modules

### Input module specifications

Input type	DC Input					AC Input *1)	
Part number	G6I-D21A	G6I-D22A	G6I-D22B	G6I-D24A	G6I-D24B	G6I-A11A	G6I-A21A
Input point	8 points	16 points		32 points		8 points	
Rated input voltage	DC12/24V	DC12/24V	DC24V	DC12/24V	DC24V	AC100~120V	AC200~240V
Rated input current	3/7mA	3/7mA	7mA	3/7mA	7mA	7mA	11mA
On voltage/current	DC9.5V or more/ 3.5mA or more	DC9.5V or more/ 3.5mA or more	DC15V or more/ 4.3mA or more	DC9.5V or more/ 3.5mA or more	DC15V or more/ 4.3mA or more	AC80V or more/ 5mA or more	AC80V or more/ 5mA or more
Off voltage/current	DC5V or less/ 1.5mA or less	DC5V or less/ 1.5mA or less	DC5V or less/ 1.7mA or less	DC5V or less/ 1.5mA or less	DC5V or less/ 1.7mA or less	AC30V or less/ 2mA or less	AC30V or less/ 2mA or less
Response time	Off→On On→Off	5ms or less 5ms or less	5ms or less 5ms or less	5ms or less 5ms or less	5ms or less 5ms or less	15ms or less 25ms or less	15ms or less 25ms or less
Common	8 points/COM			32 points/COM		8 points/COM	
Operating indicator	LED						
Insulation method	Photocoupler insulation						
Current consumption (DC5V)	40mA	70mA		75mA		35mA	

\*1) AC input modules: 50/60Hz



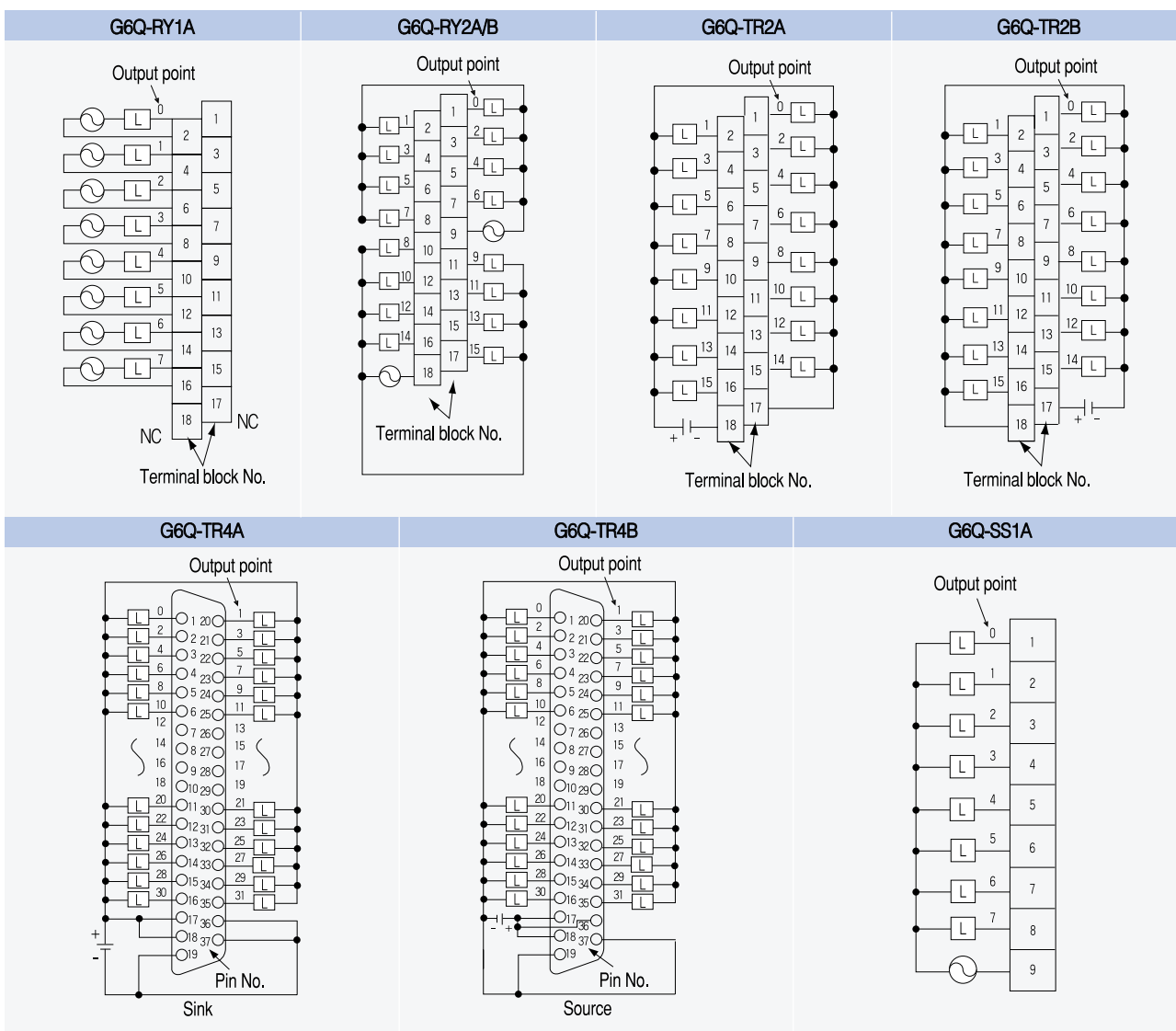
\* Refer to user's manual for wiring.

## Output modules

### ■ Output module specifications

Output module type	Relay output			Transistor output				Triac output
Part number	G6Q-RY1A	G6Q-RY2A	G6Q-RY2B	G6Q-TR2A	G6Q-TR2B	G6Q-TR4A	G6Q-TR4B	G6Q-SS1A
Output point	8 points	16 points		16 points	16 points	32 points	32 points	8 points
Rated load voltage	DC12/24V, AC110/220V (50/60Hz)			DC12/24V				AC110/220V (50/60Hz)
Off leakage current				0.1mA or less				2.5mA or less
On voltage drop	-			DC1.5V or less	DC2.5V or less	DC3V or less		AC1.5V or less
Rated load current	1 Point	2A		0.5A		0.1A		1A
	1 Common	-	5A	3A		2A		4A
Response time	Off → On	10ms or less		2ms or less				1ms or less
	On → Off	12ms or less		2ms or less				0.5cycle+1ms or less
Common	1 point/COM	8 points/COM		16 points/COM		32 points/COM		8 points/COM
Operating indicator				LED				
Insulation method	Relay			Photocoupler				
Surge absorber	-			Varistor		Clamp diode		Varistor, CR absorber
Current consumption (DC5V)	210mA	400mA		180mA	170mA	140mA	145mA	190mA
External power supply	-			DC24V				-

\* G6Q-TR2A/TR4A: Sink type, G6Q-TR2B/TR4B: Source type



\* Refer to user's manual for wiring.

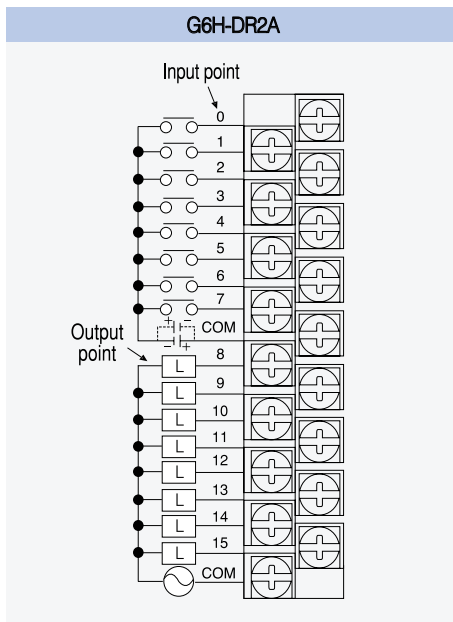


# GLOFA-GM6

Programmable Logic Controller

## I/O hybrid module specifications

G6H-DR2A			
Input		Output	
Input point	8 points	Output point	8 points
Insulation method	Photocoupler	Insulation method	Relay
Rated input voltage	DC 12/24V	Rated load voltage/current	DC 24V, 2A (Resistance)/1 point, 4A/COM AC 220V, 2A (COS $\phi$ = 1)/1 point, 4A/COM
Rated input current	3/7mA	Min. load voltage/current	DC 5V/1mA
Operating voltage range	DC 10.2~28.8V (Ripple rate < 5%)	Max. load voltage	AC 250V, DC 125V
Max. simultaneous input	8 points (100% simultaneous ON)	Off leakage current	0.1mA (AC 220V, 60Hz)
On voltage/current	DC 9.5V/3.5mA or more	Max. switching frequency	1,200 times/hour
Off voltage/current	DC 5V/1.5mA or less	Surge absorber	-
Input impedance	About 3.3k $\Omega$	Service life	Mechanical: 20 million times or more Electrical: 100,000 times or more (Rated load V/C)
Response time	Off $\rightarrow$ On: 5ms or less On $\rightarrow$ Off: 7ms or less	Response time	Off $\rightarrow$ On: 10ms or less On $\rightarrow$ Off: 12ms or less
-	-	Common	8 points/COM
Operating indicator	LED	Operating indicator	LED
External connection	18-point terminal block connector (M3 $\times$ 6 screws)		
Current consumption (DC 5V)	250mA		
Weight	200g		



\* Refer to user's manual for wiring.