

L02 HOST MODULE AND PLC CX3G

CX3G/PLC

Programmable Logic Controller PLC

PLC applies military-grade chip, faster operating speed and strong anti jamming capability. The inputs and outputs apply opto-isolator. Analog i/o, RS232 and RS485 are integrated. It is a new control concept in functions, cost-saving and conveniences.

Features

- Integrated PLC with digital i/o (DI/DO), analog i/o (AD/DA), high speed functions, etc..
- Compatible with FX3G/FX3U/FX3S PLC, fast operation.
- Up to 40DI/40DO, 16AD/8DA.
- Default 1 Mini type B USB port, 1 Rs232 (Interface terminal is mouse female port with 8 holes), 2 RS485 ports Supports optional Rs232 communication port, and supports Mitsubishi PLC programming protocol, serial port protocol and Modbus protocol. Supports CAN.
- Some models support Ethernet port. Supports multiple HMI and VFD communication.
- Supports multi-channel high speed count and pulse functions.
- 32,000-step program capacity and 32,000 power retentive registers. Supports interruption, linear arc interpolation and PID self-tuning.
- Supports special encryption. HMI and PLC can be encrypted respectively. Set PLC password as 12345678 can prohibit reading program completely. (Note: PLC only supports 8-bit password.)
- Combined with Coolmay network modules can realize remotely control.
- Supports OEM and ODM.



CX3G/PLC



MODEL	CX3G-16M	CX3G-24M	CX3G-32M	CX3G-48M	CX3G-34M	CX3G-64M	CX3G-80M
Dimension	85*90*36mm	130*90*36mm		200*90*36mm		290*90*36mm	
Cutout size	77*99mm	122*99mm		192*99mm		282*99mm	
Installation	Fixed hole installation and DIN-Rail (35mm)						
Features	Support interrupt, linear arc interpolation, PID auto-tuning. 32K program capacity, 32K retentive register						
I/O level	Input: Passive NPN, public terminal isolated Transistor output: NPN Relay output: Normally open dry contact						
Digital I/O	8DI/8DO	12DI/12DO	16DI/16DO	24DI/24DO	18DI/16DO	32DI/32DO	40DI/40DO
DO type and load	Relay(MR) or transistor(MT) or mixed(MRT) MOS tube: 2A/point, 4A/4 point COM; Transistor MT: 0.5A/point, 0.8A/4 point COM, 1.6A/8 point COM; MR: 2A/point, 4A/4 point COM, 5A/8 point COM. (CX3G-16MRT: Default Y0, Y1 is transistor output, maximum 6 relay outputs)						
High speed counting	Single phase 6 channel 60KHz, or 2 AB 60KHz + 1 AB 10KHz, or 2 ABZ 60KHz + 1 AB phase 10 KHz						
High speed pulse	8 channels 10KHz	8 channels, Y0-Y3 is 100KHz, Y4-Y7 is 10KHz					
	High-speed counting + high-speed pulse < 480KHz						
Analog I/O (optional)	Null	6AI/4AO	2AI	8AI/4AO	12AI/8AO	16AI/8AO	4AI/4AO
AI type (optional)	Null	Type E/E_/K/K_/S/S_/T/T_/J/J_ thermocouple / PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ 0~10V/ 0~5V/ 0~20mA/ 4~20mA/ -5V~5V/ -10V~10V					
AO type (optional)	Null	0~10V/ 0~5V/ 0~20mA/ 4~20mA -5~5V/ -10~10V (2DA for 1 minus voltage)					
Default	1 Mini type B USB programming port, 1 RS232 programming port (Interface terminal is mouse female port with 8 holes), 2 RS485 COM ports						
Optional	Default 2 RS485 COM ports can be customized as 1 RS485, 1 RS232 COM ports, or 1 RS485 COM port, 1 CAN (2.0A/B), or 1 RS232 COM port, 1 CAN (2.0A/B). For CX3G-48M: Ethernet port is optional.				Default 2 RS485 COM ports can be customized as 1 RS485, 1 RS232 COM ports. CAN (2.0A/B) port is optional, Ethernet port is optional.		
Software	Compatible with GX WORKS 2						

L02 PLC HOST

MODEL		L02M32T	L02M32R	L02M24T	L02M24R
Image					
Programming language		Ladder diagram (LD) / instruction list / Sequential function chart (SFC)			
Program capacity		32k steps			
Storage capacity	Date (D)	[D0~D127] 128points General / [D128~D7999] 7872points Retentive / [D8000~D8511]512points Special			
	Expansion(R)	[R0~R22999] 23000points. Support power-down retention / [R23000~R23999].1000points Internal use			
Expansion model		Max limit of 31 units: max 12 analog input/output respectively			
Max I/O		FX3U mode: 512 points; FX3G mode: 256 points (the sum of input and output points)			
CPU Digital I/O		16DI / 16DO		12DI/ 12DO	
CPU analog I/O		/		4AI/4AO	
AI Type		/		2*0-10V, 2*0-20mA(4-20mA)	
AO Type		/		2*0-10V, 2*0-20mA(4-20mA)	
Timer T		[T0~T199] 200points 100ms General / [T250~T255] 6points 100ms Retentive [T246~T249] 4points 1ms cumulative Retentive / [T256~T319] 64points 1ms General [T200~T245] 46points 10ms General			
		※The 10ms timer is affected by the scan period. If the scan period is 12ms,the timer becomes 12ms and executes once.			
16-bit counter C		[CO~C15] 16points General			
32-bit counter C		[C200~C219] 20points General		[C220~C234] 15points Retentive	
		[C235~C245 Single phase single counting][C246~C250 single phase double counting]			
		[C251~C255 Two-phase double counting]			
High-speed pulse		4-channels 150KHz+4-channels 50KHz			
High-speed counter		Single phase 6 channels 60KHz, or AB(Z) phase 2 channels 60KHz+AB phase 1 channel 10KHz			
Do type		L02M32T/L02M24T: Transistor output, load maximum 500mA, low level NPN, COM connected to negative			
		L02M32R/L02M24R: Relay output, load maximum 2A, dry contact, COM can be connected to positive or negative			
Default COM		Type-C, RS-232, RS-485*2, Ethernet, CAN			
Protocol		Programming port Modbus RTU, Modbus TCP, Modbus UDP, freeport protocol, CAN, Ethernet/IP, BD board			
Data backup function No battery storage	Program	Flash ROM			
	Retentive area	MRAM has no write limit			
Calendar(RTC)		Commercially available batteries CR1620(optional)			
Self-diagnosis		CPU abnormalities, internal memory problems, etc			
Rated input voltage		24VDC(± 10%)			
Software		Compatible with GX WORKS 2			

L02 PLC MODULES

SORT	MODEL	IMAGE	DESCRIPTION
Power supply Module	L02-60P		Input: 100-240VAC, 50/60Hz AC power input. Output (for L02 series products): 24VDC/1.5A, 36W Output (for other products): 24VDC/0.5A, 12W
Digital input Module	L02-8EX		DC24V, 6mA, 8 points input, push-type terminal
	L02-16EX		DC24V, 6mA, 16 points input, push-type terminal
	L02-32EX		DC24V, 6mA, 32 points input, horn block terminal
Digital output Module	L02-8EYT		30VDC, 2A/point; 2A/4point COM, 8 points transistor output, push-type terminal
	L02-8EYR		Below AC220V / Below DC30V, 2A/point, 4A/4point COM, 8 points relay output, push-type terminal
	L02-16EYT		30VDC, 2A/point; 2A/4point COM, 16 points transistor output, push-type terminal
	L02-16EYR		Below AC220V / Below DC30V, 2A/point, 4A/4point COM, 16 points relay output, push-type terminal
	L02-16EYP		220VAC/30VDC, 0.5A/point, 16DO, relay and PNP outputs, push-type terminals
	L02-32EYT		30VDC, 2A/point; 2A/4point COM, 32 points transistor output, horn block terminal
Digital input output mixed Module	L02-16ET		DC24V, 6mA, 8 points input; 30VDC, 2A/point; 2A/4point COM, 8 points transistor output, push-type terminal
	L02-16ER		DC24V, 6mA, 8 points input; Below AC220V / Below DC30V, 2A/point, 4A/4point COM, 8 points relay output, push-type terminal
	L02-32ET		DC24V, 6mA, 16 points input; 30VDC, 2A/point; 2A/4point COM, 16 points transistor output, horn block terminal
Analog output Module	L02-4DA		4-channel analog signal output 16-bit resolution 0~5V, 0~10V, 0~20mA
Analog input Module	L02-4AD		channel analog signal input 16-bit resolution 0~10V, 0~5V, 0~20mA, -20~20mA
Analog input output mixed Module	L02-4AD2DA		4-channel analog signal input; 16-bit resolution 0~10V, 0~5V, 4~20mA, 0~20mA 2-channel analog signal output; 16-bit resolution 0~5V, 0~10V, 0~20mA
Temperature Module	L02-4RTD		4-channel 2-wire or 3-wire RTD temperature sensing Sensor type: Pt100; Resolution: 0.1°C/0.1°F (16 bit converter)
	L02-4TC		4-channel thermocouple temperature sensing Sensor type: J, K, S, T, E; Resolution: 0.1°C/0.1°F (16 bit converter)
	L02-4NTC		4-channel thermistor temperature sensing Sensor type: NTC10K (Default B value 3435); Resolution: 0.1°C/0.1°F (16 bit converter)
Weighing/Load cell Module	L02-2LC		2-channel 4-wire load cell Characteristic values: 1, 2, 4, 6, 20, 40, 80 mV/V Accuracy error value: one ten thousandth (1/10000) ADC resolution: 23 bits
Ethernet/IP Module	L02-EIP		Built-in two Ethernet interfaces, support switch function Support Ethernet/IP protocol, remotely expand I/O available.

MODEL	CX3G-16M	CX3G-24M	CX3G-48M	CX3G-64M	CX3G-80M
Image					
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Installation	Fixed hole installation and DIN-Rail (35mm)				
Features	Support interrupt, linear arc interpolation, PID auto-tuning. 32K program capacity, 32K retentive register				
I/O level	- Input: Passive NPN, public terminal isolated - Transistor output: NPN - Relay output: Normally open dry contact				
DO type and load	- MOS tube: 2A/point, 4A/4 point COM; - Transistor MT: 0.5A/point, 0.8A/4 point COM, 1.6A/8 point COM; - MR: 2A/point, 4A/4 point COM, 5A/8 point COM.				
High speed counting	Single phase 6 channel 60KHz, or 2 AB 60KHz + 1 AB 10KHz, or 2 ABZ 60KHz + 1 AB phase 10 KHz				
High speed pulse (only for MT models)	8 channels 10KHz	8 channels, Y0-Y3 is 100KHz, Y4-Y7 is 10KHz			
	High-speed counting + high-speed pulse < 480KHz				
COM port	1x Mini type B USB programming port, 1x RS232 programming port (Interface terminal is mouse female port with 8 holes), 2x RS485 COM ports				
Software	Compatible with GX WORKS 2				

OPTIONAL FUNCTIONS

MODEL	I/O	Output	AI/AO	AI TYPE	AO TYPE	PLC COM PORT
CX3G-16M	8/8	MT	/	- Thermocouple E/E_/K/K_/S/S_/T/T_/J/J_/ / PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ - 0~10V/ 0~5V/ -5V~5V/ -10V~10V - 0~20mA/ 4~20mA - Mixed	- 0~10V /0~5V/ -5~5V/ -10~10V (2AO for 1 minus voltage) - 0~20mA/ 4~20mA - Mixed/	2x default RS485 ports can be changed into
CX3G-16M	8/6	MR	/			- 1x RS485 + 1x RS232
CX3G-24M	12/12	MT	2/1 or 4/2 or 6/4			Or
CX3G-24M	12/12	MR				- 1x RS485 + 1x CAN (2.0A/B) port
						Or
						- 1x RS232 + 1x CAN (2.0A/B) port
CX3G-48M	24/24	MT	2/1 or 4/2 or 6/4 or 8/4			- 2x default RS485 ports can be changed into
						a) 1x RS485 + 1x RS232
						Or
						b) 1x RS485 + 1x CAN (2.0A/B) port
						Or
						c) 1x RS232 + 1x CAN (2.0A/B) port
CX3G-48M	24/24	MR				- 1x Ethernet port
CX3G-64M	32/32	MT	2/1 or 4/2 or 6/4 or 8/4 or 12/8 or 16/8			- 1x RS232 COM port (changed from one default RS485 port)
CX3G-64M	32/32	MR				- 1x CAN (2.0A/B) port
CX3G-80M	40/40	MT	2/1 or 4/2 or 4/4			- 1x Ethernet port
CX3G-80M	40/40	MR				