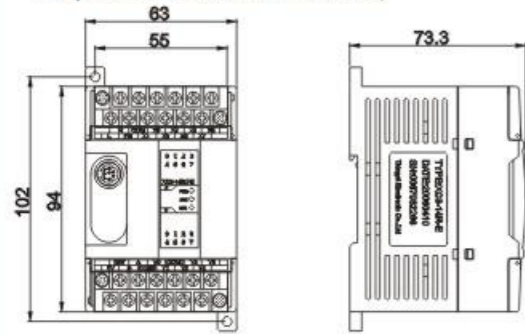
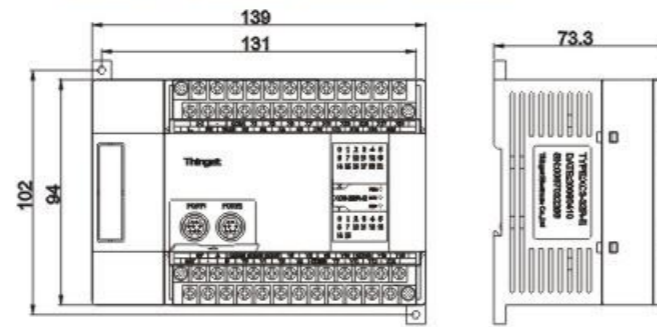


External Dimension

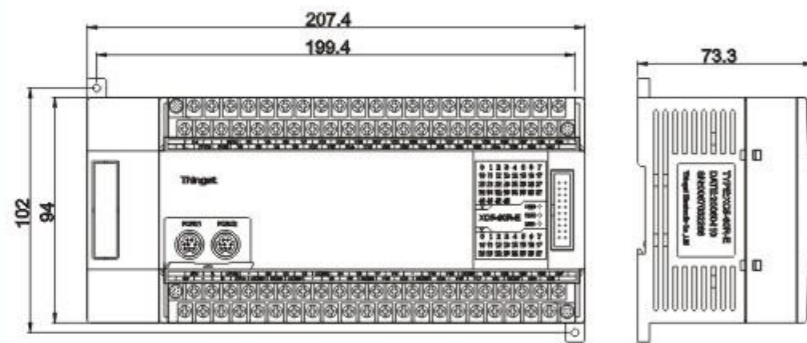
XC series 14 points main unit (include 16 points extend module)



XC series 32 points main unit (include 24 points, 16 points extend module)



XC series 60 points main unit (include 48 points main unit)



Model	Size (mm)
14 points main unit	63 × 102 × 73.3
16 points extend module	
32 points main unit	139 × 102 × 73.3
24 points main unit	
32 points extend module	207.4 × 101.5 × 73.3
60 points main unit	
48 points main unit	

Thinget

PLC with powerful capability

With steady performance and easy to operate



Thinget Electronic Co., Ltd.

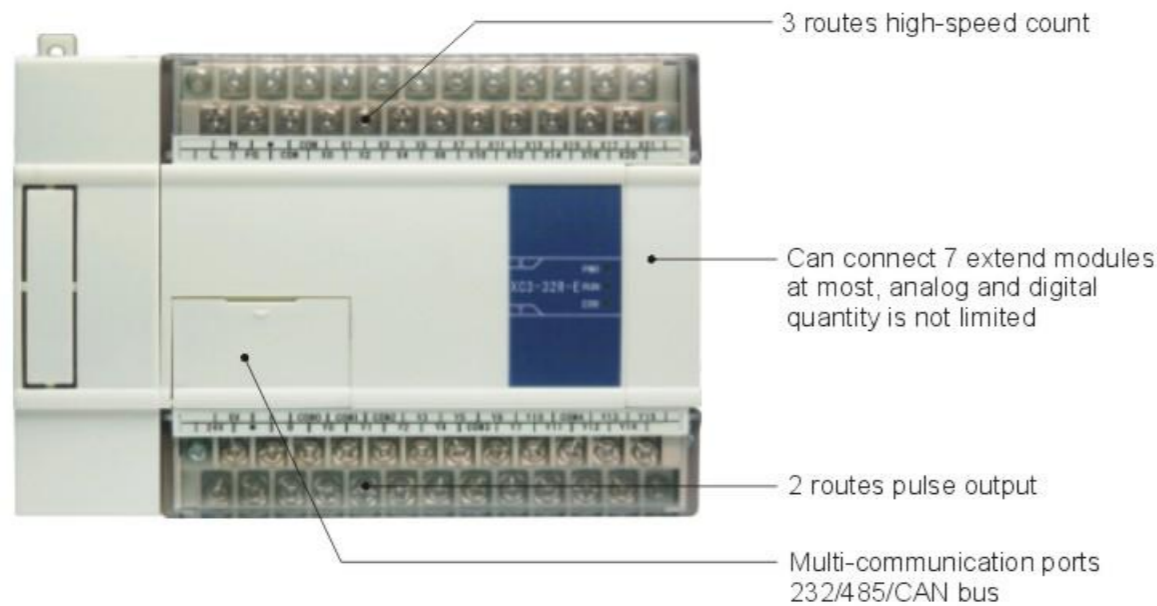
Add.: 4th Floor Building 7, Originality Industry park, Liyuan Development Zone, Wuxi City, Jiangsu Province, China
 Zip: 214072
 Tel.: +86 510 85134136 +86 510 85123803
 Fax: +86 510 85111290
<http://www.xinje.com>
 E-mail: xinje@xinje.com

Rich instructions /small size and powerful function/ many communication net choice / support many special function modules

XC APPLICATION CONTROLLER
 Series programmable controller **CE**

PLC with stronger function and more competitive price

XC series PLC include many powerful functions, with large capacity and small size. Multi-communication ports make you feel convenient when connect with HMI, control inverters etc.



Basic capability that has been highly improved

Program capacity	30,000 steps
Scan time	10,000 steps 5ms
Max. I/O points	1024 points
Max. frequency of high-speed count	200KHz
Max. frequency of pulse output	400KHz
Multi-communication ports function	Support RS-232, RS 485, CAN bus

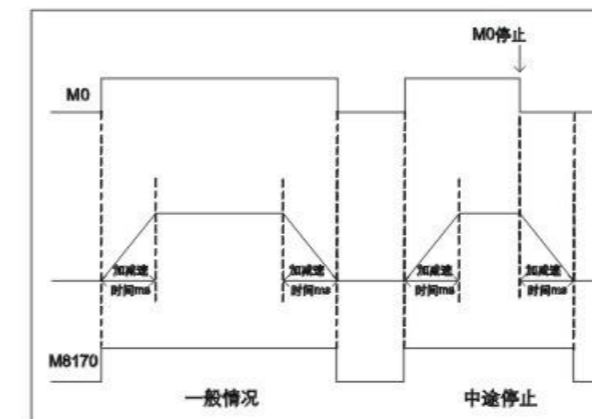
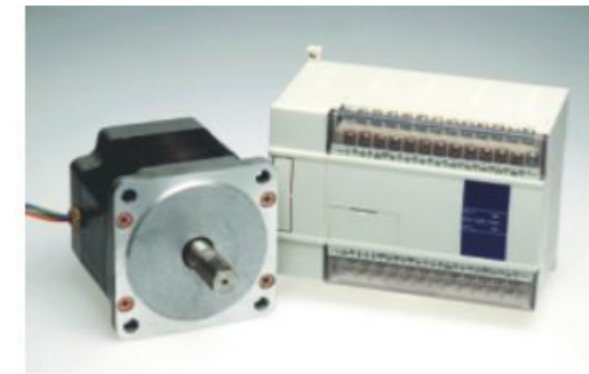
PLC with powerful capability
steady performance and easy to operate



Good performance; Movement control, Support 5 axes at most

2 routes pulse output

To control step motor or AC servo motor of pulse input, the only demand is to input four parameters include max. frequency, total output pulse number, add/minus speed time, Y number which is used to assign the output pulse, output is not affected by the scan cycle.



- Low frequency pulse can be output at any Y port, the output frequency's bound is 0~200Hz.
- High frequency pulse can be output at Y000 and Y001, the output frequency's bound is 200~100,000Hz, accelerator can be chosen by both of them when output.

32 bits high-speed count

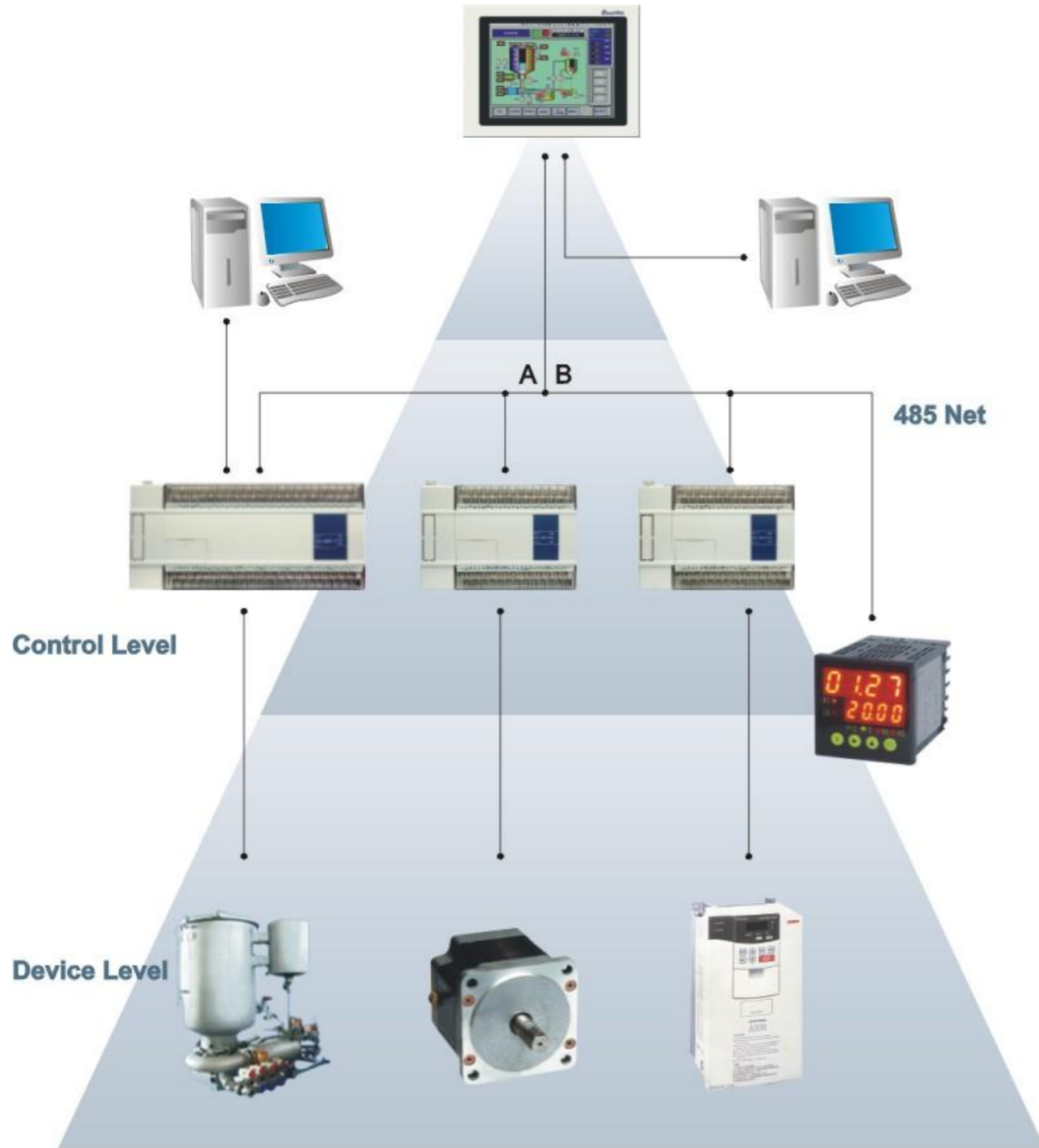
There are 3 routes, 2 phases high-speed counters and high-speed count compare devices in XC series basic units.

They can directly connect with rotate encoder, count the input from encoder.



Flexibly , rapidly constitute a control net FOR ALL APPLICATION CONTROL

Modbus bus



PLC with powerful capability

With steady performance and easy to operate



CAN bus



XP330 PLC, HMI integrator

XP3 series is a multi-function integrator which integrate logic control, analog input / output, temperature control, HMI in one body. XP3 series covers all functions of PLC and HMI. The model has 2 routes high-speed pulse output (0~400K) and 2 routes 32 bits high-speed count (can reach 200K at most). So the model can realize middle or small scale control easily and conveniently.

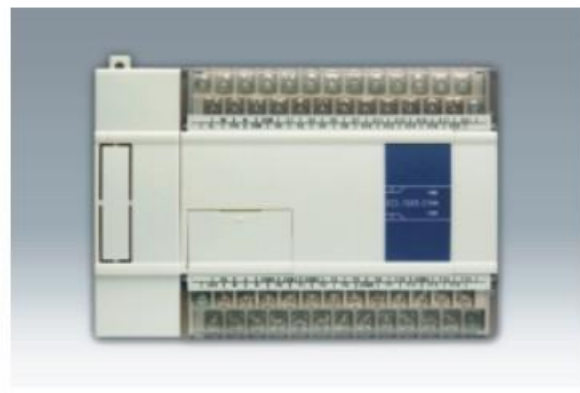


Characteristic: Integrate logic control, analog input/output, HMI in one body, the program port has many functions

Design: Use one program cable for the program of HMI and PLC. With compact structure, the model saves the electric-control tank's space greatly. Also the model's appearance is simply, compact and fashion.

The main unit with special function

To satisfy the customers' diverse requirement, we also offer the main unit with analog input/output, temperature control.



Characteristic:
10 bits high-degree analog input/output.
PID temperature control.
2 routes 32 bits pulse output.
2 routes 32 bits high-speed count.

Usage

- Temperature control
- Flow control
- Speed control
- Tension control
- Pressure control
- Voltage current monitor
-

PLC with powerful capability
With steady performance and easy to operate



The system constitution of XC series PLC

To adjust more widely power and diverse output format requirement, XC series PLC main units are constituted by many types of models, include AC input, DC input, relay output, transistor output. The main units all include 2 routes pulse output, 2 routes high-speed count, multi-communication ports and extend function.

Main unit's type	14 points main unit	24/32 points main unit	48/60 points main unit
AC Relay			
AC Transistor			
With both relay and transistor output			
DC Relay			
DC Transistor			
With both relay and transistor output			

Specification description

AC power	AC100~240V
DC power	DC21.6~26.4V
Input specification	DC24V ON>4mA, OFF<1.5mA
Output specification	Relay output: 3A per point Transistor output: 0.8A per point

Input/output expansion

	XC-E16X XC-E8X8YR XC-E8YR XC-E16YR XC-E8X8YT XC-E8YT XC-E16YT	16 points input 8 points input 8 points relay output 8 points relay output 16 points relay output 8 points input 8 points transistor output 8 points transistor output 16 points transistor output		XC-E32X XC-E32YR XC-E16X16YR XC-E16X16YT	32 points input 32 points relay output 16 points input 16 points relay output 16 points input 16 points transistor output
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Analog expansion

	XC-4AD XC-8AD XC-2DA XC-4DA XC-4AD2DA XC-6PT-P XC-8PT XC-6TC-P XC-8TC	4 routes analog input 8 routes analog input 2 routes analog output 4 routes analog output 4 routes analog input, 2 routes analog output 6 routes PT100 temperature test (with PIC control inside) 8 routes PT100 temperature test 6 routes K, E type thermocouple temperature test (with PIC control inside) 8 routes K, E type thermocouple temperature test
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CAN bus expansion

	XC-EC8X8Y Long distance CAN bus module (8 routes input 8 routes output)		XC-EC16X16Y Long distance CAN bus module (16 routes input 16 routes output)
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XC series PLC basic performance

General specification

Items	Specification
Insulate voltage	Up to DC 500V 2M Ω
Noise resistance	1000V 1 μ S pulse 1 minute
Ambient temperature	0°C~60°C
Ambient humidity	5~95%
COM1	RS-232C, connect with the host machine, HMI program or debug
COM2	RS-485, connect with the net or intelligent devices, invertors etc.
COM3	CAN bus
Installation	Screw fixed or orbit fixed installation
Grounding	Third type grounding (Can not connect with the strong power system)

Performance

Items	Specification
Main units' type	14 points 24\32 points 48\60 points
Program's executing format	Loop scan format, time scan format
Program format	Use both instruction and ladder chart
Disposal speed	0.5μS
Power cut retentive	Use FlashROM and Li battery
User program's capacity	30.00 steps
The main unit's max I/O points	Input 8 points Input 14\18 points Input 28\36 points Output 6 points Output 10\14 points Output 20\24 points
System's max I/O points	1024 points
Interior coil's points (M)	8000 points (M0~M7999)
Timer (T)	(T)Points No. 620 points (T0~T619)
	Specification 100mS timer: Set time 0.1~3276.7 sec. (T0~T99), with memory (T100~T199) 10mS timer: Set time 0.01~327.67 sec. (T200~T299), with memory (T300~T399) 1mS timer: Set time 0.01~327.67 sec. (T400~T499), with memory (T500~T599) Time precisely: (T600~T619)
Counter (C)	(C)Points No. 634 points (C0~C633)
	Specification 16 bits counter: Set value K0~32767 (C0~C299) 32 bits counter: Set value K0~2147483647 (C300~C599)
Data register (D)	8000 words (D0~D7999)
FlashROM register (D)	1792 words (FD0~FD1791) 5120 words (FD0~FD5119) 5120 words (FD0~FD5119)
Special coil (M)	512 points (M8000~M8511)
Special register (D)	512 words (D8000~D8511)
High-speed count format /outside interrupt	3 types of high-speed count format (single phase, double phase, AB phase), 2 types exterior interrupt (Rising edge, trailing edge)
Setting of time scan space	0~99mS
Calendar clock	Year /Month /Day /Time /Min. /Sec. /Week
High-speed count / interrupt	Max 6 routes 200K/24 segments
Password protection	6 bits length ASCII
Self diagnose function	Give power check, monitor timer, express check

PLC with powerful capability

With steady performance and easy to operate



XC series PLC main unit and expansion

XC series PLC main unit

Model						Input points	Output points
AC power			DC power				
Relay output	Transistor output	Mix output of relay and transistor ※ Y0,Y1 are transistor output	Relay output	Transistor output	Mix output of relay and transistor ※ Y0,Y1 are transistor output		
XC3-14R-E	XC3-14T-E	XC3-14RT-E	XC3-14R-C	XC3-14T-C	XC3-14RT-C	8 points	6 points
XC3-24R-E	XC3-24T-E	XC3-24RT-E	XC3-24R-C	XC3-24T-C	XC3-24RT-C	14 points	10 points
XC3-32R-E	XC3-32T-E	XC3-32RT-E	XC3-32R-C	XC3-32T-C	XC3-32RT-C	18 points	14 points
XC3-48R-E	XC3-48T-E	XC3-48RT-E	XC3-48R-C	XC3-48T-C	XC3-48RT-C	28 points	20 points
XC3-60R-E	XC3-60T-E	XC3-60RT-E	XC3-60R-C	XC3-60T-C	XC3-60RT-C	36 points	24 points

Note: ※ Y0,Y1 are transistor output

XC series PLC main unit

Model		Input points	Output points
Relay output	Transistor output		
XC-E8YR	XC-E8YT	—	8 points
XC-E16X	—	16 points	—
XC-E16YR	XC-E16YT	—	16 points
XC-E8X8YR	XC-E8X8YT	8 points	8 points
XC-E16X16YR	XC-E16X16YT	16 points	16 points
XC-E32X	—	32 points	—
XC-E32YR	—	—	32 points

Specification description

AC power	AC100~240V
DC power	DC21.6~26.4V
Input specification	DC24V ON>4mA, OFF<1.5mA
Output specification	Relay output 3A/1 point Transistor output 0.8A/1 point

Analog extend module and special module

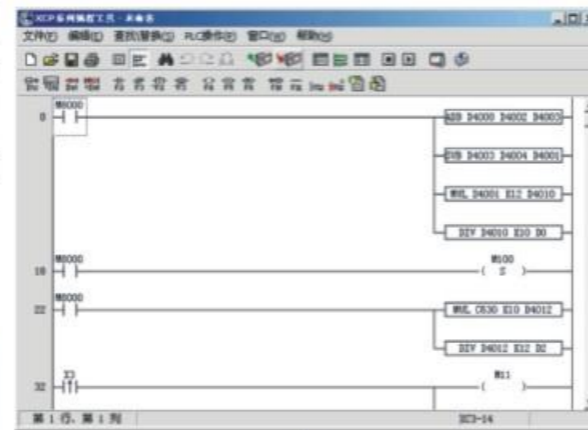
Name	Model	Function
Analog extend model	XC-4AD	12Bit,4 routes analog input module; current, voltage are optional
	XC-8AD	12Bit,6 routes analog input module; current, voltage are optional
	XC-2DA	12Bit,2 routes analog output module; current, voltage are optional
	XC-4DA	12Bit,2 routes analog output module; current, voltage are optional
	XC-4AD2DA	12Bit, 4 routes analog input /2 routes analog output module
	XC-6PT-P	6 routes PT100 test temperature module (with PID control inside)
	XC-8PT	8 routes PT100 test temperature module (degree 0.2°C)
	XC-6TC-P	6 routes K, E type thermocouple test temperature module (degree 0.4°C, with PID control inside)
	XC-8TC	8 routes K, E type thermocouple test temperature module (degree 0.4°C)
	CAN bus module	XC-EC8X8Y
XC-EC16X16Y		Long distance CAN bus module (16 routes input /16 routes output)



Convenient, fast, easy program tool XCP

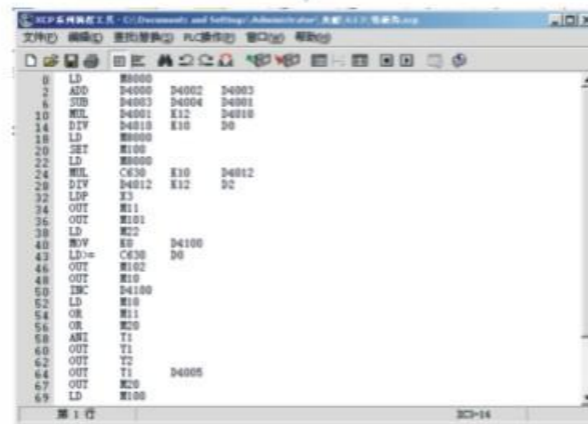
Edit environment

XCP software's edit environment adopt the popular powerful capacity software which use computer to edit. It has the advantages of brief, high efficiency etc. so the user will be familiar with it soon. With rich instructions, ordinal control, data disposal, communication instructions etc., you will feel programming with facility.



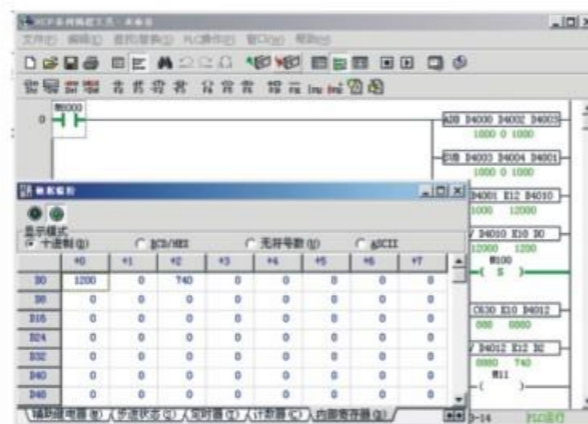
Ladder editing is convenient and directly

At the same time, the software supports also instruction programming, and it's available to convert the instruction programming and ladder programming to each other. Also, cut, copy, paste at your will.



Online monitor

It's available to open monitor program on the ladder or open the data monitor window to modify the monitor data.



Rich instructions

This series PLC add some applied instructions besides those normal ordinal control, data disposal instructions.

- Modbus communication instructions ▶ Let you realize inter-connect easily on the base of Modbus protocol
- CAN communication instructions ▶ Let you realize CAN bus inter-connect easily
- Indirect appoint function ▶ Make you feel more convenient and easy to program

instruction programming

Sort	Mnemonic	Function	Sort	Mnemonic	Function	Sort	Mnemonic	Function			
Coil edge judgment	LD	Normally open coil	Data Move	ZRST	Batch reset	Float operation	EMUL	Float data multiplication			
	LDI	Normally closed coil		SWAP	Interchange of high and low bytes		EDIV	Float data division			
	AND	Serial connection of normally open coil		XCH	Exchange of two data		ESOR	Float extraction			
	ANDI	Serial connection of normally closed coil		FWRT	FLASH write into		SIN	Float SIN operation			
	OR	Parallel connection of normally open coil		DECO	Decode		COS	Float COS operation			
	ORI	Parallel connection of normally closed coil		NECO	Encode		TAN	Float TAN operation			
	LDP	Rising edge		ADD	Addition		TCMP	Timer data compare			
	LDF	Falling/Trailing edge		SUB	Subtraction		TZCP	Timer data zone compare			
	Output instructions	OUT		Output	Data operation		MUL	Multiplication	Timer Clock operation	TADD	Timer data add
		SET		Set			DIV	Division		TRD	Clock data read out
RST		Reset	INC	Increment		TWR	Clock data write in				
PLS		Rising edge output	DEC	Decrement		RCV	Free format receive				
PLF		Falling/trailing edge output	MEAN	Mean		SEND	Free format send				
ALT		Coil inverse	WAND	Word AND		COLR	Coil read				
OUTD		Instant output	WOR	Word OR		INPR	Input coil read				
MSET		Multi-coils set	WORX	Word exclusive OR		COLW	Coil write (one)				
ZRST		Multi-coils reset	CML	Inverse		MCLW	Coil write (many)				
Data compare		LD=	Equal	Data shift		NEG	Negation	Communication instructions		REGR	Register read
	LD<>	Unequal	SHL		Shift left	INRR	Input register read				
	LD>=	>=	SHR		Shift right	REGW	Register write (one)				
	LD<=	<=	LSL		Logic shift left	MRGW	Register write (many)				
	LD>	Larger	LSR		Logic shift right	Pulse Function	PLSR		Multi-segment output with rising edge		
	LD<	Smaller	ROL		Rotation left		PLSY		Multi-segment output without rising edge		
	Program flow	CJ	Condition jump		Data shift	ROR	Rotation right		STOP	Stop pulse output	
		CALL	Subroutine call			SFTL	Bit shift left		PWM	PWM output	
		SRET	Subroutine return			SFTR	Bit shift right		FRQM	Frequency test	
		STL	Flow Start			WSFL	Word shift left				
STLE		Flow End	WSFR	Word shift right							
SET		Open the appointed flow, close the current flow	Data conversion	WTD		Single word integer convert to double words integer					
ST		Open the appointed flow, not close the current flow		FLT		32 bits integer convert to float					
FOR		Start of a FOR/NEXT loop		FLTD		64 bits integer convert to float					
NEXT		End of a FOR/NEXT loop		INT		Float convert to integer					
EI		Enable interrupt		BIN		BCD convert to binary					
DI	Disable interrupt	BCD		Binary convert to BCD							
IRET	Interrupt return	ASC		Hex. convert to ASCII							
FEND	First End	HEX		ASCII convert to Hex.							
END	Subroutine return	Float operation		ECMP	Float data compare						
Data Move	MOV			Move	EZCP	Float data zone compare					
	BMOV		Data block move	EADD	Float data addition						
	FMOV	Multi-points move repeatedly	ESUB	Float data subtraction							