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# PRODUCTS CATALOG

**Programmable Logic Controller Human Machine Interface** 



2021 Edition

WECON TECHNOLOGY Co.,LTD.All Rights Reserved. HMI/ PLC/ IIoT V-BOX/ Servo/ IPC/ VFD Manufacturer



# Cortex A9 1.4GHz Super Size High Resolution Aluminum Body All Metal Design, with Nobility



**TFT** 

# **High Definition**

**High Resolution** 

16000k colors

Full view LCD screen

1920 X 1080 pixels











# PI8000 SERIES

**High-end Configuration** 



# **CORTEX A8 CPU**



- Flash 2GB EMMC
- 32GB SD card, 64GB USB Flash Drive supported
- RS232/RS485/RS422 supported
- Ethernet, CANBus, USB2.0 (USB Host; USB Client) port supported

HTML5 as the background language, breaks through the traditional restrictions.



**Exquisite Graphics** 

Rich library of charts ,meters.



Multi-language

Up to 8 language that could be displayed on the screen.



**Multi-communication Port** 

Up to 5 serial ports, Ethernet port ,CAN protocol (optional) , Modbus,over 200 protocols supported.



**External Devices** 

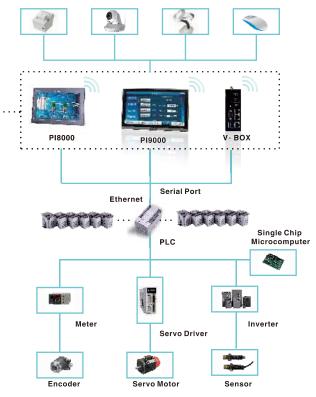
Micro-printer, Barcode scanner, WIFI, USB,USB scanner etc.

# INTELLIGENT

# **Cloud Platform**







# Cloud Monitoring

Wecon Smart App for Android/IOS devices supports multiple users operating simultaneously on PI 8000/9000 Series HMI.









# **SECURITY**

# Cloud Message



# Remote Debug over cloud



In case of emergency, notification could be sent to your mobile and you can deal with it immediately.

Through connection over cloud, PLC and HMI could be connected to PC for online debugging and programming.

# **Security System**



### Access Authorization

Access authorization can be set to each button to protect against unauthorized operation or misoperation.

Roles are to be assigned to users to facilitate management.

# ■ To re

**>>** 

## Operation Record

- To record each step of operations from authorized users.
- Timestamp, buttons pressed and depressed, everything would be logged.
- Log files are stored in database format for data analyzation to improve management.



# Security Managment

- Programmer passwords can protect your project from unauthorized access or reverse engineering.
- Project passwords protect your project files against uploading and running on unauthorized HMIs.



# Password Security

Project passwords, access passwords, administration passwords and remote passwords are working together to ensure secure access.





# Pl3000ie SERIES

# NEW UPGRADE MORE FLUENT TOUCH

- Front indicator light
- Enhance software security
- Less boot time



PI3035ie/ PI3150ie are coming soon

# **PI3000ie SPECIFICATIONS**

Basic HMI



Model

PI3043ie

PI3043ie-N

PI3043ieS PI3043ieS-N

	Item			Spec	cifications			
	CPU			Cortex	A35 1.2GHz			
Tou	ich Screen		High precision four-wire resistive					
	Scree	en Size	4.3 Inch					
	Reso	olution		4	80*272			
Display	Brigh	ntness		30	00cd/ m²			
Display	Backlig	ght Type			LED			
	Backligh	t Life Time	50,000 Hours					
	Co	olors		16,0	00k colors			
	FI	ash		1	128MB			
Storage	R	AM		DDI	RII 64MB			
Otorago	SD	Card			N/A			
	R	TC		Real	Time Clock			
	Micro	o-USB	USB 2.0 x 1					
			1 serial por	(9-pin terminal)				
I/O	Serial	COM1	RS232, RS422 / RS485 (2 in 1) RS232, RS422 / RS485 (2 in 1					
Port	Port	COM2						
		COM3			-			
	Eth	ernet	N/A	YES	N/A	YES		
Perma	nent Calen	dar	Built-in					
Power	Power	Supply		24V DC	(12~28V DC)			
. 0	Power Co	onsumption			< 5W			
	Encl	osure		Pi	C+ABS			
Dimension	Dimens	sion(mm)		142.0W	*86.0H*30.3D			
	Mountin g	Size (mm)		131.	0W*78.0H			
	Weigl	ht (KG)		0	.19/0.3			
	Prote	ection		IP65 (I	Front panel)			
F	Temp	erature	Storage: -20°C~60°C; Working: 0°C~50°C					
Environment	Hur	nidity		10 ~ 90%RH	(Non-condensing)			
	Vibration	Resistance		10 ~ 25 Hz (X, Y, Z	direction 2G/30 minutes)			
CE C	Certification			CE	Marked			
FCC	Certification	ı		FCC	C Class A			
Program	ming Soft	ware	PI Studio					
Remote Control N/A								

# **PI3000ie SPECIFICATIONS**

**Basic HMI** 





Model

PI3070ie

PI3102ie

	Item	Specific	ations				
	CPU	Cortex A3	5 1.2GHz				
То	uch Screen	High precision four-wire resistive					
	Screen Size	7 Inch	10.2 Inch				
	Resolution	800*480	1024*600				
Display	Brightness	250 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>				
Display	Backlight Type	LED					
	Backlight Life Time	50,000	Hours				
	Colors	16,000	colors				
	Flash	128	МВ				
Storage	RAM	DDRII	64MB				
	SD Card	N	A				
	USB	USB Host: USB 2.0 x 1; USB Client: USB 2.0 x 1					
Port Number		1 Physical Serial Port					
Ports	Serial Port	COM1: RS232, RS422 /RS485 (2 in 1)					
	Ethernet	N	/A				
Perma	anent Calendar	Built-in					
Power	Power Supply	24V DC(12~28V DC)					
1 01101	Power Consumption	< 1	5W				
	Enclosure	PC+	ABS				
Dimension	Dimension(mm)	201.2W*147.2H*39.0D	272.0W*191.0H*41.5D				
Billionololi	Mounting Size (mm)	192.0W*138.0H	260.0W*179.0H				
	Weight (KG)	0.52	1.02				
	Protection	IP65 (Fro	ont panel)				
Environment	Temperature	Storage: -20 °C ~70 °C ;	Working: -10 °C~60 °C				
	Humidity	10 ~ 90%RH(N	on-condensing)				
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z dir	rection 2G/30 minutes)				
CE	Certification	CE M	arked				
FCC	Certification	FCC C	Class A				
Prograr	mming Software	PI S	PI Studio				
Re	mote Control	N/A					

# **PI3000i SPECIFICATIONS**

**Basic HMI** 







Model

PI3070i Pi3070i-N

PI3102i

PI3070i-SL PI3070i-N-SL

	Item	Specifications							
	CPU	Cortex A7 528MHz							
To	uch Screen	High precision four-wire resistive							
	Screen Size	7 In	7 Inch 10.2 Inch		7 Inch				
	Resolution	800*480		1024*600	800*4	180			
Display	Brightness	250 cd/m <sup>2</sup>		350 cd/m <sup>2</sup>	250 ca	d/m²			
Display	Backlight Type			LED					
	Backlight Life Time			50,000 Hours					
	Colors			16,000k colors					
	Flash			128MB					
Storage	RAM			DDRIII 128MB					
	SD Card			NA					
	USB	USB Host: USB 2.0 x 1; USB Client: USB 2.0 x 1							
D 1	Port Number			1 Physical Serial Port					
Ports	Serial Port		COM1: RS232, RS422 / RS485( 2 in 1)						
	Ethernet	N/A	YES	YES	N/A	YES			
Perma	anent Calendar			Built-in					
Power	Power Supply			24V DC(12~28V DC)					
rowei	Power Consumption	< 8'	N	< 10W	< 81	W			
	Enclosure			ABS					
Dimension	Dimension(mm)	201.2W*147	.2H*39.0D	272.0W*190.0H*41.5D	191.2W*137	.2H*41.0D			
Billionolon	Mounting Size (mm)	192.0W*	138.0H	260.0W*179.0H	172.0W*	111.0H			
	Weight (KG)	0.51 /	0.74	1.00 / 1.31	0.52 /	0.74			
	Protection			IP65 (Front panel)					
Environment	Temperature		Sto	rage: -20°C~70°C; Working: -10°C~6	60°C				
Littiioiiiioiit	Humidity	10 ~ 85%RH(Non-condensing)							
	Vibration Resistance		10	~ 25 Hz (X, Y, Z direction 2G/30 minu	utes)				
CE (	Certification			CE Marked					
FCC	Certification	FCC Class A							
Progran	nming Software			PI Studio					
Rei	mote Control			N/A					

# **PI3000 SPECIFICATIONS**

Basic HMI





Model

PI3070N

PI3102H

	Item		Specific	cations				
	CPU		Cortex A8					
То	uch Screen		High precision fo	pur-wire resistive				
	Scree	n Size	7 Inch	10.2 Inch				
	Resol	lution	800*480	1024*600				
B: 1	Bright	tness	300 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>				
Display	Backlig	ht Type	LED					
	Backlight	Life Time	50,000	Hours				
	Col	lors	16,000k colors					
	Flash		128	MB				
Storage	R/	AM	DDRIII	128MB				
	SD Card		Compa	atible				
	US	SB	USB Host: USB 2.0 x 1;	USB Client: USB 2.0 x 1				
	Port Number		2 Physical S	Serial Ports				
		COM1	RS232/RS4	422/RS485				
Ports	Serial	COM2	RS232/	/RS485				
	Port	COM3	-					
	Ethe	ernet	YES					
Perma	anent Calend	dar	Built-in					
Power	Power	Supply	24V DC(12	2~28V DC)				
1 OWG	Power Co	nsumption	<10	)W				
	Enclo	osure	AB	38				
Dimension	Dimensi	ion(mm)	200.1W*146.0H*36.5D	271.8W*190.4H*41.2D				
	Mounting	Size (mm)	192.0W*138.0H	260.0W*179.0H				
	Weigh	nt (KG)	0.6	1.2				
	Prote	ction	IP65 (Fro	ont panel)				
Environment	Tempe	erature	Storage: -30 ℃~70 ℃ ;	Working: -10°C~60°C				
	Hum	nidity	10 ~ 90%RH(No	on-condensing)				
		Resistance	10~25Hz (X,Y,Z direct	, , , , , , , , , , , , , , , , , , ,				
	Certification		CE Ma					
	Certification		FCC C					
-	nming Softv	vare	PISt					
Remote Control			N/A					

# PI9000/PI8000 SPECIFICATIONS

High-end HMI









Model

PI8070

PI8102H

PI8104

PI9150

	Item		Specifications							
	CPU			Cortex A8 600MHz		Cortex A9 1.4GHz				
Tou	chScreer	ı	High precision four-wire resistive							
	Scre	en Size	7 Inch	10.2Inch	10.4Inch	15 Inch				
	Resolution		800*480	1024 *600	800*600	1920*1080				
Display	Brightness		300 cd/m <sup>2</sup> 350 cd/m <sup>2</sup> 300 cd/m <sup>2</sup>		300 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>				
Diopidy	Backli	ght Type		LED						
	Backligh	t LifeTime	50,000 Hours							
	C	olors		16,000k	colors					
	F	lash		2GB EMMC		4GB EMMC				
Storage	F	RAM		DDRIII	512MB					
Otorago	SE	Card		Comp	patible					
	F	RTC		Real Tim	ne Clock					
	ι	JSB		USB Host:USB 2.0x1; l	USB Client: USB 2.0 x 1					
I/O	Serial	COM1	RS232,RS422/RS485							
Ports	Port	COM2		RS232	2,RS485					
. 0.10	1 011	COM3		RS	485					
	Eth	nernet		YI	ES					
	C	CAN	Optional N/A							
Permar	nent Caler	ndar	Built-in							
Power	Power	r Supply								
	Po	ower		< 20W						
	End	closure		ABS		Aluminum				
Dimension	Dimen	ision(mm)	200.1W*146.0H*36.5D	271.8W*190.4H*41.2D	298.0W*223.0H*53.5D	402.9W*253.2H*47.0I				
	Moi	unting	192.0W*138.0H	260.0W*179.0H	288.0W*212.0H	394.0W*244.0H				
	Wei	ght(KG)	0.6	1.2	1.9	3.1				
	Pro	tection		IP65(Fro	ntpanel)					
	Ste	orage		Storage: -30°C~70°C;		Storage:-30°C~70°C;				
Environment Environment				Working: -10°C~60°C		Working: 0°C~50°C				
Working				10~90%RH(N	lon-condensing)					
Vibration Resistance				10~25Hz(X,Y,Zdire	ection2G/30minutes)					
CE C	ertification	1		CE Ma	arked					
FCC (	Certificatio	on		FCC C	lassA					
S	oftware			PI St	udio					
Remo	ote Contro	ol		Opti	onal					

# PI3000ig IoT HMI **PI3000ig** ют нмі,

**Create for the Internet of Things** 

128MB FLASH/RAM, Cortex A35 1.2GHz CPU, More Fluent Touch















Ethernet

Remote Download

Remote Monitoring

MQTT

4G/WIFI

# **PI3000ig SPECIFICATIONS**

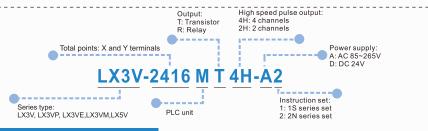
High-end НМІ



Model PI3070ig PI3102ig

	Item		Specifi	cations				
	CPU		Cortex A3	15 1.2GHz				
Tou	ch Screen		High precision for	our-wire resistive				
	Scree	en Size	7 Inch	10.2 Inch				
	Reso	olution	800*480	1024*600				
Diaglass	Brigh	ntness	250 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>				
Display	Backli	ght Type	LE	ED				
	Backl	ight Life	50,000	Hours				
	Co	olors	16,000	colors				
	FI	ash	128	MB				
Storage	R	AM	DDRIII	128MB				
	SD	Card	YE	ES				
	U	ISB	USB Host 2.0 x 1,	USB Client 2.0 x 1				
			1 Physic	cal Port				
	Serial	COM1	RS232, RS422 / RS	485 (2 in 1), RS485				
I/O	Port	COM2	-					
Port		СОМ3	-					
	Ethernet CAN		YE	ES				
			N	/A				
	4G/WIFI		Opti	onal				
Permar	nent Calen	dar	Built-in					
Power	Power	r Supply	24V DC (12~28V DC)					
	Po	ower	< 1.	5W				
	Enc	losure	PC+	ABS				
Dimension	Dimens	sion(mm)	201.2W*147.2H*39.0D	272W*191H*41.5D				
	Mount	in g Size	192.0W*138.0H	260.0W*179.0H				
	Weig	ht (KG)	0.52	1.02				
	Prot	ection	IP65 (Fro	ont panel)				
Environment	Temp	erature	Storage: -30°C~70°C;	Working: -10°C~60°C				
		midity	10 ~ 90%RH (N	· · · · · · · · · · · · · · · · · · ·				
		Resistance		rection 2G/30 minutes)				
	ertification		CE M					
	Certification		FCC C					
Program	ming Soft	ware	PI St					
			Real-time Monito	oring Points: 100				
	InT S	Service	Alarm Monitor	ring Points: 20				
Software			History Monito	ring Points: 50				
			History Storage: 6	0 days / 5 millions				
	VPN Pa	ss-through	YE	ES				

# PROGRAMMABLE LOGIC CONTROLLER



#### **PLC Introduction**

- 1. Universal Power Supply Design —85~264V AC 50/60 HZ, wide range power supply.
- 2. All core components used are from well-known global brands.
- 3. The 'Three layer coating' ensures the reliability in harsh environment.
- 4. Flash memory data storage.
- 5. 200 KHz high speed.
- 6. Com port 600 TVS, static surge protection.
- 7. RS485 communication port ensures the reliability of communication in vibration.
- 8. Reliable and stable high speed USB port for programming download/monitor.



### High Speed Pulse Input



- External high speed pulse input supports Encoder (AB phase) input, pulse + direction mode input; Maximum support for 200 KHz pulse signal input.
- AB phase signal can support configurable frequency settings (i.e. x1, x2 or x4).

# **High Speed Pulse Output**



- Supports high speed pulse signal output with acceleration and deceleration.
- The acceleration and deceleration time are configurable.
- Pulse modulation output one by one.



## **Program Encryption**



It prevents users from illegal copy and tamper of the program.

# Subprogram Encryption

Partial encryption function of the ladder diagram can be realized, and it can encrypt subprograms and interrupts. This function enables protection of important subprogram segment. By choosing the subprogram and setting the password, it can be encrypted. Once it has been encrypted than the subprogram is in "subprogram encryption" state and the encrypted contents will not be displayed.

# Ladder Encryption Methods

The PLC encryption includes project encryption, upload password and download password. All of those passwords can be used for the entire ladder program.

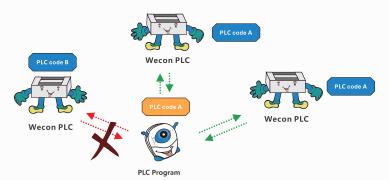
All these kinds of passwords are independent from each other (user need to set password separately during each of these operations), the password can be same or different to ensure copyright of PLC program.



# PROGRAMMABLE LOGIC CONTROLLER

# PLC Host and Program Encryption

For additional protection of the program, project building can be dedicated to the specified PLC model. PLC identification code and program identification code can be introduced. User can set the program identification code of the project and also can set a PLC identification code for the PLC. So, the software will compare the program identification code and PLC identification code at every attempt of the upload or download of the program and can be executed to only designated PLC.



#### **Modbus Listed Instruction**



In the original MODBUS protocol, users must program RS instruction in ladder. But the editing process is quite cumbersome and imperfect.

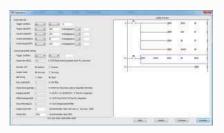
With the help of new method (RSLIST+RSLIST communication list), it becomes easier.



#### **Features of PLC Wizard Function**



- Modules monitor function guides the user to monitor the BFM data in real time. This function reduces customer dependency on module manuals.
- It guides the user to generate the ladder program with the corresponding content (i.e. instruction, modules, BD board, etc.). It saves customer's comprehension time and reduces error which may occur while editing ladder. Also it will help the user to create functioning ladder more quickly.



**PID Operation Wizard Setting** 



LX-4AD Module Wizard Setting

#### **PLC LX3V Series**

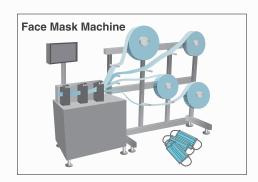


- Supports 2 BD modules and more expansion modules, as well as stabler operation.
- USB port supports much higher upload and download
- Support PID control, floating point calculation.

Face mask machine includes main unit, feeder unit, welding unit, packing unit.

Pressing and slicing, dividing and transferring, earband welding, each part realizes semi-automatic and automated production, which is faster and more stable. The core of the automatic control system is mainly compose

d of PLC, HMI, Servo, Stepper motor, photoelectric switch,

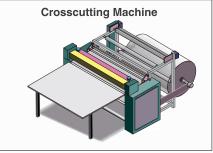


#### **PLC LX3VE Series**

contactor and relay.



- Up to 4 channels each of 200 KHz high speed pulse outputs are Supports flying cut and rotary cut. supported, all 4 channels can work simultaneously.
- Supports 32k steps ladder diagram.
- Supports electronic CAM.



Crosscutting machine belongs to carton processing machinery. The crosscutting machine is used in the production line of the corrugated board. It is used for the cutting of the finished cardboard. The technical feature and equipment adjustment status directly affects the accuracy of the finished cardboard's cutting sizes and the appearance of the pressure line.

#### PLC LX3VM Series



- Up to 4 channels independent 200 KHz high speed pulse output are supported, 4 channels can be used simultaneously.
- Supports 32k steps ladder diagram.
- Three axis liner interpolation (Y0,YI,Y2) and two axis circular interpolation are supported(Y0,YI).

- Supports jitter pulse output.
- Supports S-type curve to meet special demands.



Side Cutting Machine is a CNC machine for punching of holes in the side of the plate type furniture. It is suitable for horizontal hole machining and horizontal slotting. It has features like. Infrared automatic induction, accurate detection of the hole position, accurate movement distance, low error, simple operation, eliminate the need of skilled workers, convenient and efficient.

- Supports electronic CAM.
- Supports Jitter pulse output.

# **APPLICATION**



Through the linear-circle interpolation function, the cutting machine realizes the multi axis path positioning control, improves cutting efficiency, quality and relieves the working intensity.

#### LX3V-2WT



- 2 channels weighing signal input.
- Hardware 24-bit AD input (2: 24-bit Resolution).
- Support 1~2400 Hz frequency conversion speed.
- Adjustable setting of Digital filter.
- Adjustable setting of Tare weight and Net weight.

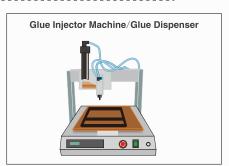
Screw packaging machine is a typical equipment for vibrating plate feeding, screw weighing and packaging. It is difficult to count the actual number of screws dropped down from plate by optical bit counter because of the irregular shape of the object to be weighed. Therefore, it is divided into multistage speed to control the vibration of the feeding plate, it uses the round up and round down (half adjust) to complete counting process. The first part uses the weight measurement, the second part uses the number to compare whether the set weight is achieved.

#### LX3V-4LTC



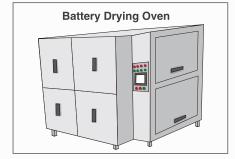
LX3V-4LTC is temperature control module, it has four temperature input ports and four transistor output ports (open collector). It reads data from the thermocouple, and give output value with PID control algorithm.

Battery Drying Oven, its working process includes warming - cooling - vacuum - forcing - nitrogen filling. The project has total 100 processes comprises two different process cycles. Data monitoring, data acquiring, PID Auto-tuning (self-tuning). Measurement of Temperature at different 12 points. There difference in the temperature at upper, lower, middle, center of the oven. So, temperature gradient is there and homogeneity of the oven is affected



Glue injector machine realizes multi-axis path positioning control through linear arc interpolation function and operate it according to the set path. It can be set to semi-automatic, fully automatic, or adjustment modes.





# **LX5V Series PLC**



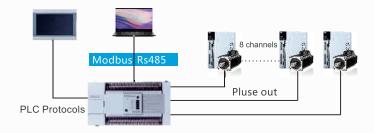
- Faster: 0.01us~0.03us execution speed
- Supports larger program capacity: 48k steps
- Supports the highest baud rate: 921600
- Supports 8 channels external interrupt, and support both rising and falling edges
- Supports 100us high-speed timer interrupt
- Supports up to 100 high-speed counting interrupts
- Supports E-CAM
- Supports electronic gear
- Supports efficient and stable PID and CCPID self-tuning
- Supports IO module and analog module of LX3V series
- Supports BD modules of LX3V series (Communication BD module not supported now)

# 8 Channels High Speed Pulse Input

LX5V comes standard with 8 channels high speed counter (HSC0~HSC7 for 8 channels). The maximum counting frequency of the 8 channels single-phase high-speed counter is 150KHZ, and the maximum counting frequency of the 8-channels AB phase high-speed counter is 100KHZ. This high-speed counter is executed by hardware, and will be more efficient and faster.

# **8 Channels High Speed Pulse Output**

LX5V comes standard with 8 channels high speed pulse output. The maximum output frequency of 8-channels high-speed pulse output is 200KHZ, which can modify the frequency and number of high-speed pulse output during operation(targeted positions). LX5V PLC realize equipment working with high speed, precise and reliable pulse control in a cost-effective way.



# **More Registers**

- 64KB latch area
- 76KB of data capacity
- Added 128 timers of 0.1ms
- Added 128 timers of 1ms

# **Software Advantages**

Based on Wecon PLC Editor, LX5V programming software is optimized and upgraded to be easier configuration, clearer program classification and parameter configuration. Multi-segment scanning program, multi-event program, multiple subroutines and multiple interrupt programs are added.

# **EXPANSION MODULE**

#### **PLC EXPANSION MODULE**



#### ■ Multi-module connection:

Support up to 16 modules, 256 input points or 256 output points.

Due to the difference plc model, user need to calculate the power consumption at first.

#### ■ DA module resolution :12 bits

#### ■ PT/TC module resolution

S-type sensor:-50~+1768	(degree centigrade)
R-type sensor:-50~+1768	(degree centigrade)
B-type sensor:+250~+1820	(degree centigrade)
N-type sensor:-200~+1300	(degree centigrade)
E-type sensor:200~+1000	(degree centigrade
T-type sensor:-200~+400	(degree centigrade)
J-type sensor: -210~+600	(degree centigrade
K-type sensor:-200~+1372	(degree centigrade)
Pt100 sensor:-100~+600	(degree centigrade

#### ■ AD module resolution :16 bits

■ WT module resolution :24 bits



#### LX3V-8iTC



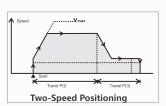
- 8 channels for temperature acquiring; Multiple sensor types are supported; Supports thermocouple types like K, S, E, N, B, T, J and R.
- All 8 channels are isolated each other.
- Built-in cold junction compensation, external cold junction compensation, freezing cold junction compensation method.

# Present value(IV) Temporature leating value (SV) Self-tuning start Self-tuning finish Self-tuning Time

#### LX3V-4PGA



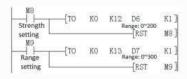
- Supports 4-channel high speed pulse outputs.
- Supports zero point return, JOG, interrupt position and twospeed pulse control.
- Supports S-type acceleration and deceleration.
- Maximum supports for 200k pulse output.
- Interrupt signal, origin signal input.



#### LX3V-2WT



- 2 channels weighing signal input.
- Hardware 24-bits AD input (2: 24-bit Resolution)
- Supports 1~2400 Hz frequency conversion.
- Adjustable setting of Digital filter.
- Adjustable setting of Tare weight and Net weight.
- Zero-tracking can reduce the influence of temperature drift effective.



# **BD MODULE**

Up to 2 BD modules can be connected PLC Expansion Module
(Due to the different power supply tolerances of various PLC, the actual application requires the help of a module calculator)

LX Series PLC

# **Analog BD BOARD**



Model	Resolution	Input/Output Range	Data Range
DA	12	Output Current: 4~20mA	0~2000
AD	12	Input Current : 4~20mA	0~2000
PT	14	Sensor:PT100-100∼600°C	-1000~6000
TC	14	Sensor:Ktype-100~1200℃	-1000~12000
TC	14	Sensor:Jtype-100~600°C	-1000~6000
DAV	12	Output Voltage:-10~10V	-2000~2000
ADV	12	Input Voltage:-10~10V	-2000~2000

# Communication Expansion Board >>>





By using LX3VP-ETH-BD, Ethernet port can be added.



- · Supports Modbus-Tcp protocol.
- · Maximum 8 devices can be connected (no master-slave) to one LX3VP-EH-BD module.

#### LX3VP-CAN Communication

( Only some models of 3VP supported [LX-3VP2416 Mix supported] )

- For Good real-time communication, strong correction ability and stable communication.
- Supports CANopen standard protocol DS301 V4.02.
- · Supports 16 slave devices when used as master.
- Free configuration by using CANopen network configuration software "CANopen Tool".
- · It works as a master or a slave.

## **PLC BD Module**



BD Board	Function	BD Board	Function						
LX3V-2ADI2DAI-BD	2 * Analog Input/ Analog Output (4~20mA)	LX3V-2PT-BD	2 * Thermal Resistance Input						
LX3V-2TC2DAI-BD	2 * Thermocouple Input;	LX3V-2PT2ADV-BD	2 * Thermal Resistance Input;						
EX3V-2102DAI-BD	2 * Analog Output (4~20mA)	LAGV-ZF 1ZADV-BD	2 * Analog Voltage input(-10v-10v)						
LX3V-2PT2DAI-BD	2 * Thermal Resistance Input;	LX3V-2PT2DAV-BD	2 * Thermal Resistance Input;						
EXGV-21 TZBAFBB	2 * Analog Output (4~20mA)	EXOV-ZI IZBAV-BB	2 * Analog Voltage Output(-10v-10v)						
LX3V-2TC-BD	2 * Thermocouple Input	LX3V-2ADV2DAV-BD	2 * Analog Input/ Output (-10V~10V)						
LX3V-4ADI-BD	4 * Analog Input (4~20mA)	LX3V-2RS485-BD	2 * RS485 Communication						
LX3V-4ADV-BD	4* Analog Input (-10V~10V)	LX3V-ETH-BD	1 * Ethernet Communication						
LX3V-2ADV-BD	2*Analog Voltage Input(-10v-10v)	LX3V-2DAI-BD	2*Analog Current Output(4-20mA)						
LX3V-2ADI-BD	2*Analog Current Input(4-20mA)	LX3V-2DAV-BD	2*Analog Voltage Output(-10v-10v)						
LX3V-2PTS-BD	2* Thermal Resistance Input, Precision >0.1 °C								

# **LX3V SERIES PLC PRODUCT**

# **LX3V Series**



PLC Model	1/0	Output type	Dimension (mm)	Pulse Counter	Pulse Output	RS485	BD Board	Module	Power Supply
LX3V-0806MR-A1(D1)	8/6	Relay	75x107x87	2	0	1	1	N/A	AC(DC)
LX3V-0806MT-A1(D1)	8/6	Transistor	75x107x87	2	2	1	1	N/A	AC(DC)
LX3V-0806MR-A2(D2)	8/6	Relay	75x107x87	2	0	1	1	N/A	AC(DC)
LX3V-0806MT-A2(D2)	8/6	Transistor	75x107x87	2	2	1	1	N/A	AC(DC)
LX3V-1208MR-A1(D1)	12/8	Relay	75x107x87	2	0	1	1	N/A	AC(DC)
LX3V-1208MT-A1(D1)	12/8	Transistor	75x107x87	2	2	1	1	N/A	AC(DC)
LX3V-1208MR-A2(D2)	12/8	Relay	75x107x87	2	0	1	1	N/A	AC(DC)
LX3V-1208MT-A2(D2)	12/8	Transistor	75x107x87	2	2	1	1	N/A	AC(DC)
LX3V-1208MR2H-A2(D2)	12/8	Mix	75x107x87	2	2	1	1	N/A	AC(DC)
LX3V-1212MR-A(D)	12/12	Relay	137x107x87	2	0	2	1	YES	AC(DC)
LX3V-1212MT-A(D)	12/12	Transistor	137x107x87	2	2	2	1	YES	AC(DC)
LX3V-1212MT4H-A(D)	12/12	Transistor	137x107x87	2	4	2	1	YES	AC(DC)
LX3V-1212MR2H-A(D)	12/12	Mix	137x107x87	2	2	2	1	YES	AC(DC)
LX3V-1412MR-A(D)	14/12	Relay	137x107x87	2	0	2	1	YES	AC(DC)
LX3V-1412MT-A(D)	14/12	Transistor	137x107x87	2	2	2	1	YES	AC(DC)
LX3V-1412MT4H-A(D)	14/12	Transistor	137x107x87	2	4	2	1	YES	AC(DC)
LX3V-1412MR2H-A(D)	14/12	Mix	137×107×87	2	2	2	1	YES	AC(DC)
LX3V-1616MR-A(D)	16/16	Relay	175×107×87	2	0	2	2	YES	AC(DC)
LX3V-1616MT-A(D)	16/16	Transistor	175x107x87	2	2	2	2	YES	AC(DC)
LX3V-1616MT4H-A(D)	16/16	Transistor	175x107x87	2	4	2	2	YES	AC(DC)
LX3V-1616MR2H-A(D)	16/16	Mix	175×107×87	2	2	2	2	YES	AC(DC)
LX3V-2416MR-A(D)	24/16	Relay	175x107x87	2	0	2	2	YES	AC(DC)
LX3V-2416MT-A(D)	24/16	Transistor	175x107x87	2	2	2	2	YES	AC(DC)
LX3V-2416MT4H-A(D)	24/16	Transistor	175x107x87	2	4	2	2	YES	AC(DC)
LX3V-2416MR2H-A(D)	24/16	Mix	175×107×87	2	2	2	2	YES	AC(DC)
LX3V-2424MR-A(D)	24/24	Relay	220x107x87	2	0	2	2	YES	AC(DC)
LX3V-2424MT-A(D)	24/24	Transistor	220x107x87	2	2	2	2	YES	AC(DC)
LX3V-2424MT4H-A(D)	24/24	Transistor	220x107x87	2	4	2	2	YES	AC(DC)
LX3V-2424MR2H-A(D)	24/24	Mix	220x107x87	2	2	2	2	YES	AC(DC)
LX3V-3624MR-A(D)	36/24	Relay	220x107x87	2	0	2	2	YES	AC(DC)
LX3V-3624MT-A(D)	36/24	Transistor	220x107x87	2	2	2	2	YES	AC(DC)
LX3V-3624MT4H-A(D)	36/24	Transistor	220x107x87	2	4	2	2	YES	AC(DC)
LX3V-3624MR2H-A(D)	36/24	Mix	220x107x87	2	2	2	2	YES	AC(DC)

# **LX3VP SERIES PLC PRODUCT**

# **LX3VP Series**



PLC Model	I/O	Output type	Dimension (mm)	Pulse Counter	Pulse Output	RS485	CAN	BD Board	Module	Power Supply
LX3VP-1208MR-A(D)	12/8	Relay	75x107x87	2	0	1	N/A	1	N/A	AC ( DC )
LX3VP-1208MT-A(D)	12/8	Transistor	75x107x87	2	2	1	N/A	1	N/A	AC ( DC )
LX3VP-1212MR-A(D)	12/12	Relay	137x107x87	2	0	2	N/A	1	YES	AC ( DC )
LX3VP-1212MT-A(D)	12/12	Transistor	137x107x87	2	2	2	N/A	1	YES	AC ( DC )
LX3VP-1212MT4H-A(D)	12/12	Transistor	137x107x87	2	4	2	N/A	1	YES	AC ( DC )
LX3VP-1212MR2H-A(D)	12/12	Mix	137x107x87	2	2	2	N/A	1	YES	AC ( DC )
LX3VP-1412MR-A(D)	14/12	Relay	137x107x87	2	0	2	N/A	1	YES	AC ( DC )
LX3VP-1412MT-A(D)	14/12	Transistor	137x107x87	2	2	2	N/A	1	YES	AC ( DC )
LX3VP-1412MT4H-A(D)	14/12	Transistor	137x107x87	2	4	2	N/A	1	YES	AC ( DC )
LX3VP-1412MR2H-A(D)	14/12	Mix	137x107x87	2	2	2	N/A	1	YES	AC ( DC )
LX3VP-1616MR-A(D)	16/16	Relay	175x107x87	2	0	2	N/A	2	YES	AC ( DC )
LX3VP-1616MT-A(D)	16/16	Transistor	175x107x87	2	2	2	N/A	2	YES	AC ( DC )
LX3VP-1616MT4H-A(D)	16/16	Transistor	175x107x87	2	4	2	N/A	2	YES	AC ( DC )
LX3VP-1616MR2H-A(D)	16/16	Mix	175x107x87	2	2	2	N/A	2	YES	AC ( DC )
LX3VP-2416MR-A(D)	24/16	Relay	175x107x87	2	0	2	Optional	2	YES	AC ( DC )
LX3VP-2416MT-A(D)	24/16	Transistor	175x107x87	2	2	2	Optional	2	YES	AC ( DC )
LX3VP-2416MT4H-A(D)	24/16	Transistor	175x107x87	2	4	2	Optional	2	YES	AC ( DC )
LX3VP-2416MR2H-A(D)	24/16	Mix	175x107x87	2	2	2	Optional	2	YES	AC ( DC )
LX3VP-2424MR-A(D)	24/24	Relay	220x107x87	2	0	2	N/A	2	YES	AC ( DC )
LX3VP-2424MT-A(D)	24/24	Transistor	220x107x87	2	2	2	N/A	2	YES	AC ( DC )
LX3VP-2424MT4H-A(D)	24/24	Transistor	220x107x87	2	4	2	N/A	2	YES	AC ( DC )
LX3VP-2424MR2H-A(D)	24/24	Mix	220x107x87	2	2	2	N/A	2	YES	AC ( DC )
LX3VP-3624MR-A(D)	36/24	Relay	220x107x87	2	0	2	N/A	2	YES	AC ( DC )
LX3VP-3624MT-A(D)	36/24	Transistor	220x107x87	2	2	2	N/A	2	YES	AC ( DC )
LX3VP-3624MT4H-A(D)	36/24	Transistor	220x107x87	2	4	2	N/A	2	YES	AC ( DC )
LX3VP-3624MR2H-A(D)	36/24	Mix	220x107x87	2	2	2	N/A	2	YES	AC ( DC )

# LX3VE&3VM&5V SERIES PLC PRODUCT

# **LX3VE Series**



PLC Model	I/O	Output type	Dimension (mm)	Pulse Counter	E-CAM	Pulse Output	RS485	BD Board	Module	Power Supply
LX3VE-1412MT-A	14/12	Transistor	137x107x87	2	YES	2	2	1	YES	AC(DC)
LX3VE-1412MT4H-A	14/12	Transistor	137x107x87	2	YES	4	2	1	YES	AC(DC)
LX3VE-1616MT-A	16/16	Transistor	175x107x87	2	YES	2	2	2	YES	AC(DC)
LX3VE-1616MT4H-A	16/16	Transistor	175x107x87	2	YES	4	2	2	YES	AC(DC)
LX3VE-2416MT-A	24/16	Transistor	175x107x87	2	YES	2	2	2	YES	AC(DC)
LX3VE-2416MT4H-A	24/16	Transistor	175x107x87	2	YES	4	2	2	YES	AC(DC)
LX3VE-2424MT-A	24/24	Transistor	220x107x87	2	YES	2	2	2	YES	AC(DC)
LX3VE-2424MT4H-A	24/24	Transistor	220x107x87	2	YES	4	2	2	YES	AC(DC)
LX3VE-3624MT-A	36/24	Transistor	220x107x87	2	YES	2	2	2	YES	AC(DC)
LX3VE-3624MT4H-A	36/24	Transistor	220x107x87	2	YES	4	2	2	YES	AC(DC)

# **LX3VM Series**



PLC Model	I/O	Output type	Dimension (mm)	Pulse Counter	E-CAM	Inter- polation	Pulse Output	RS485	BD Board	Module	Power Supply
LX3VM-1412MT-A	14/12	Transistor	137x107x87	2	YES	YES	2	2	1	YES	AC(DC)
LX3VM-1412MT4H-A	14/12	Transistor	137x107x87	2	YES	YES	4	2	1	YES	AC(DC)
LX3VM-1616MT-A	16/16	Transistor	175x107x87	2	YES	YES	2	2	2	YES	AC(DC)
LX3VM-1616MT4H-A	16/16	Transistor	175x107x87	2	YES	YES	4	2	2	YES	AC(DC)
LX3VM-2416MT-A	24/16	Transistor	175x107x87	2	YES	YES	2	2	2	YES	AC(DC)
LX3VM-2416MT4H-A	24/16	Transistor	175x107x87	2	YES	YES	4	2	2	YES	AC(DC)
LX3VM-2424MT-A	24/24	Transistor	220x107x87	2	YES	YES	2	2	2	YES	AC(DC)
LX3VM-2424MT4H-A	24/24	Transistor	220x107x87	2	YES	YES	4	2	2	YES	AC(DC)
LX3VM-3624MT-A	36/24	Transistor	220x107x87	2	YES	YES	2	2	2	YES	AC(DC)
LX3VM-3624MT4H-A	36/24	Transistor	220x107x87	2	YES	YES	4	2	2	YES	AC(DC)

# **LX5V Series**



PLC Model	I/O	Output type	Dimension (mm)	Pulse Counter	E-CAM	Pulse Output	RS485	BD Board	Module	Power Supply
LX5V-1412MT-A	14 / 12	Transistor	137x107x87	8	YES	4	2	1	YES	AC
LX5V-1616MT-A	16 / 16	Transistor	175x107x87	8	YES	8	2	2	YES	AC
LX5V -2416MT-A	24 / 16	Transistor	175x107x87	8	YES	8	2	2	YES	AC
LX5V -2424MT-A	24 / 24	Transistor	220x107x87	8	YES	8	2	2	YES	AC
LX5V -3624MT-A	36 / 24	Transistor	220x107x87	8	YES	8	2	2	YES	AC

# **PLC SPECIFICATIONS**

# General >>

	LX3V Series	LX3VP Series	LX3VE / 3VM Series	LX5V Series		
Running Mode	Round Scan/ Interrupt					
Programming						
Total Instructions	Basic Instructions: 27 / Applied Instruction: 138 Applied Instruction: 140			Basic Instructions: 27 / Applied Instruction: 170		
Execute time	Basic Instruc	tions: 0.06us / Applied Instruction	n: 1~10us	Basic Instructions: 0.01-0.03us		
System Storage	16K	64K	32K	48K / 512KB		
Download/ Monitoring						
High Speed Pulse Output	2 channels (4 ch	Transistor: 8 channels / 200K				
External Interrupt		100 Channels				
Timer Interrupt		100 Channels, Interruption time (min): 0.1ms				
High Speed Input Single Phase	2	8 Channels 150KHZ				
High Speed Input AB Phase	1 channel 100K,	8 Channels 100KHZ frequency modes:1/2/4 times				
Holding Addresses	Adjustable					
Storage	FLASH					
Filter		For all X inpu	t terminals			
Serial Port	COM1: RS422 or RS485 COM2: RS485					
Temperature	Working Temperature : 0 ~ 55 $^\circ\!$					
Humidity	5~ 85%RH (Without condensation)					
Shock Resistance	JISC0040 Standard					
Influence Immunity	Meet the IEC61000-4-4 and GB/T 17626.4 standard:  Noise voltage amplitude 1KVP-P, pulse width 10us, period 0.3 s, edge time 5ns, duration 1min.					

# Output

Gutput					
Item		Relay Output	Transistor Output		
Output Mode			NPN		
Input Power Supply		DC 24V	DC 24V		
Output	Circuit	<ac 250v="" 30v<="" <dc="" or="" td=""><td colspan="3">DC 5~30V</td></ac>	DC 5~30V		
COM Port Current			<0.1mA ( DC30V )		
Insulation		Mechanistic	Optical Coupling		
Leak current			0.1mA/DC30V		
Min.Load			DC 5V2mA		
	Resistive	2A point 8A COM port	0.5A point 0.8A COM port 0.3A HSPO point		
Max.Load	Inductive	80VA	12W/DC 24V7.2WHSPO point		
	General	100W	0.9W/DC 24V		
ResponseTime	ON	<10ms	<0.2ms		
	OFF	Toms	(Pulse out put terminal: <5us)		

# **PLC SPECIFICATIONS**

# **AC Power Supply**

**>>** 

Item	LX3V/LX3VP/LX3VE/LX3VM (<26 I/Os)	LX3V/LX3VP/LX3VE/LX3VM (>26 I/Os)		
Voltage	AC 85~265\	V 50 ~ 60Hz		
Power Outage Time	100	ms		
Rush Current	<15A 5ms / AC 100V;	<30A 5ms / AC 200V		
Power Fuse	250V 3.15A	250V 3.15A		
Power Consumption	<35W	<60W		
Power Output	DC 24V 850mA	DC 24V 700mA		

# **DC Power Supply**



Item	LX3V/LX3VP/LX3VE/LX3VM PLC		
Power Supply	DC 24V±10%		
Power Outage Time	10ms		
Power Fuse	250V 3.15A		
Rush Current	<15A 1ms/DC 24V		
Power Consumption	<30w(Not include the external power supply for modules)		

# **EXPANSION MODULE**

# PLC Expansion Module



Module	Specification	Module	Specification
LX3V-8EX	8 Input	LX3V-2WT	2 * Weighting(24-bit)
LX3V-8EYR	8 Relay Output	LX3V-2WT-L	2 * Weighting(18-bit)
LX3V-8EYT	8 Transistor Output	LX3V-4AD	4 * Analog Input
LX3V-16EX	16 Input	LX3V-4DA	4 * Analog Output
LX3V-16EYR	16 Relay Output	LX3V-4PT	4 * Thermal Resistance Input
LX3V-16EYT	16 Transistor Output	LX3V-4TC	4 * Thermocouple Input
LX3V-1WT	1 * Weighting(24-bit)	LX3V-4LTC	4 * TC with Isolation (PID Control)
LX3V-1WT-L	1 * Weighting(18-bit)	LX3V-8iTC	8*Thermocouple Input
LX3V-4PGA	4* pulse generator (Advanced)	LX3V-4PGB	4* pulse generator (Basic)
	16 Input, supports RS485 Modbus		16 Relay Output, supports RS485 Modbus
LCM-16EX	communication	LCM-16EYR	communication.
	4*thermocouple Input, supports RS485 Modbus		2*weighing expansion module, 24-bit
LCM-4TC	communication.	LCM-2WT	resolution, supports RS485 Modbus
			communication.