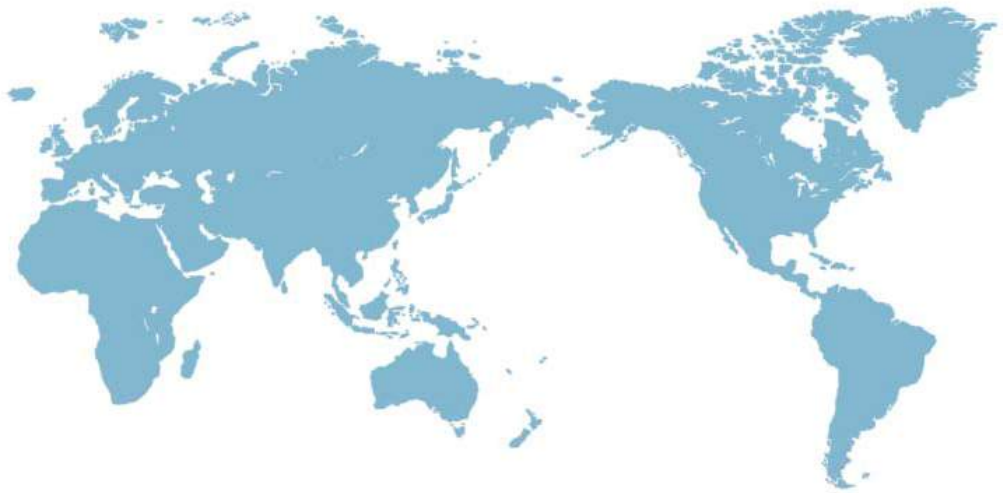

PRODUCTS CATALOG

Programmable Logic Controller
Human Machine Interface
Industrial Internet of Things

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Edition No.:WCT2.1.1

ISO | CE | FC | RoHS





2019 Edition

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Wecon Technology Co.,Ltd.



Concept: Easy Control, Easy Life
Values: Specialization, Branding, Internationalization
Mission: Creating value for our customers, staffs, suppliers and society

Culture

About WECON

WECON Technology Co., Ltd. is a Chinese high technology company, headquartered in Fuzhou software park, Fujian. We independently develop, manufacture, support and sell Human Machine Interface (HMI), Programmable Logic Controller (PLC), Industrial Panel PC (IPC) and V-BOX for Industrial IoT.

Our products are widely used in Machinery, Metallurgy, Chemical, Oil &Gas and other industries. As of May 1st, 2018, WECON has been authorized 47 patents, including 4 utility patents, 41 software intellectual property patents, and 2 appearance patents.

WECON have over 40 domestic offices in major industrial cities, providing technical and sales services to more than 100 agents and numerous terminals throughout the country. Besides domestic market, WECON also expands International market actively. We export products to more than 120 countries and have many distributors such as India, Turkey , Italy, Poland and so on.

Milestones

March, 2006
Founded WECON

2006-2009
Launch LEVI Series HMI

October, 2010
Establish Foreign Trade Department

June, 2012
Launch LX Series PLC

August, 2014
Awarded as National High-tech Enterprise

September,2015
Launch high-end PI Series HMI

April, 2016
Awarded as Fujian
Little Giant Enterprise in Science & Technology

September,2016
Launch Wecon Smart APP

October, 2017
Launch V-BOX & V-NET IIoT System

January, 2018
Launch Motion Controller

March,2018
Awarded as Fujian Technology Enterprise



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PI9000 SERIES

Cortex A9 1.4GHz

Super Size High Resolution

Aluminum Body

All Metal Design, with Nobility



TFT

16000k colors

High-definition

Full view LCD screen

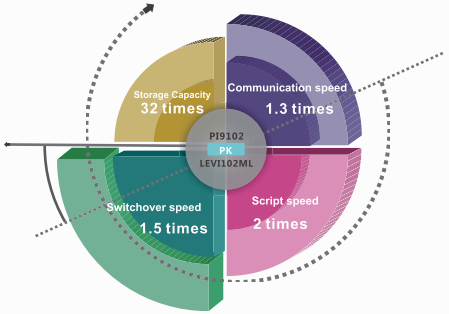
High Resolution

1920×1080 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, Modbus,over 200 protocols supported.

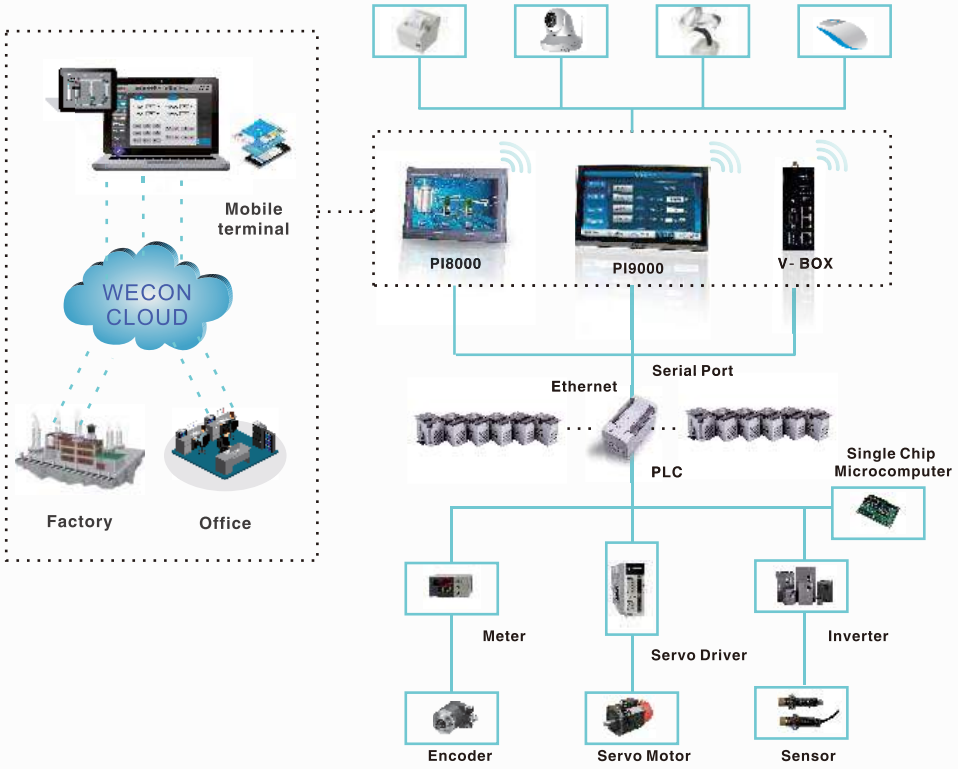


External Devices

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



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

Remote Debug over cloud



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.



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.



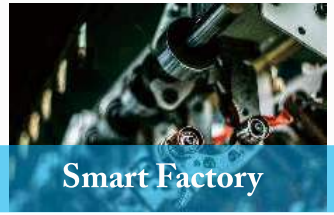
Password Security

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


Smart Home


Smart Breeding


Vehicle


Smart Factory


Security

PI3000 SERIES

LAN monitor »

A Convenience

- Monitoring software on PC can scan HMI in local area network to add them into the list for monitoring.



- LAN Monitoring Software on PC helps to find available PI3000-O HMI in LAN, and add in monitoring list.



- Real-time synchronization between PC and HMI, ensure the accuracy of data.

B Security

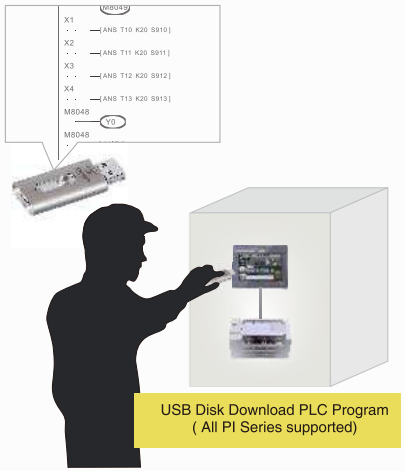
All traffic is limited in LAN, no access from Internet. Simple and effective software programming, stable performance.

C Data Collection and Storage

Up to 32G USB Flash Drive and SD card are supported, SQL supported for data querying and analyzation. (Developing)

PLC Program upgrade by USB Flash Drive »

Remarks: this function is only for Wecon PLC



USB Disk Download PLC Program
(All PI Series supported)

A Convenience

Convenience in program upgrade without PC and extra data cable.

B Usability

One USB flash drive can be used to upgrade multiple HMI panels.

C Security

New program can be encrypted for safety. PLC program would be also encrypted during downloading.

PI3000 SPECIFICATIONS

Basic HMI





Model	PI3070N	PI3102N	PI3102H	PI3102HE

OS		Wecon OS based on Linux QT			
CPU		Cortex A8 600MHz			
Touch Screen		High precision four-wire resistive			
Display	Screen Size	7 Inch	10.2 Inch	10.2 Inch	10.2 Inch
	Resolution	800*480		1024*600	
	Brightness	250 cd/m²	350 cd/m²	350 cd/m²	350 cd/m²
	Contrast Ratio	500:1			
	Backlight Type	LED			
	Backlight Life Time	>20,000 Hours			
	Colors	16,000k colors	260k colors	16,000k colors	16,000k colors
Storage	Flash	128MB			
	RAM	DDRIII 128MB			
	SD Card	Compatible			-
Ports	USB	USB Host : USB 2.0 x 1； USB Client: USB 2.0 x 1			
	Port Number	2 Physical Serial Ports			1 Physical Serial Port
	Serial Port COM1	RS232,RS422/RS485			RS422/RS485
	Serial Port COM2	RS232/RS485			RS232
	Serial Port COM3	--			
	Ethernet	YES			
Permanent Calendar		Built-in			
Power	Power Supply	24VDC(12~28V DC)			
	Power Consumption	<10W			
Dimension	Enclosure	ABS			
	Dimension(mm)	200.1W*146.0H*36.5D	271.8W*190.4H*41.2D		
	Mounting Size (mm)	192.0W*138.0H	260.0W*179.0H		
	Weight (KG)	0.6	1.2		
Environment	Protection	IP65 (Front panel)			
	Temperature	Storage: -30℃~70℃； Working: -10℃~60℃			
	Humidity	10 ~ 90%RH(Non-condensing)			
	Vibration Resistance	10~25Hz (X,Y,Z direction 2G/3D minutes)			
CE Certification		CE Marked			
FCC Certification		FCC Class A			
Programming Software		PI Studio			
Remote Control		N/A			

PI8000 SPECIFICATIONS

Advanced HMI





Model	PI8070	PI8102	PI8102H	PI8104

OS		Wecon OS based on Linux QT			
CPU		Cortex A8 600MHz			
Touch Screen		High precision four-wire resistive			
Display	Screen Size	7 Inch	10.2 Inch	10.2 Inch	10.4 Inch
	Resolution	800*480	800*480	1024*600	800*600
	Brightness	250 cd/m^2	350 cd/m^2	350 cd/m^2	250 cd/m^2
	Contrast Ratio	500:1			
	Backlight Type	LED			
	Backlight Life Time	>20,000 Hours			
	Colors	16,000k colors	260k colors	16,000k colors	16,000k colors
Storage	Flash	2GB EMMC			
	RAM	DDRIII 512MB			
	SD Card	Compatible			
I/O Ports	USB	USB Host: USB 2.0 x 1 USB Client: USB 2.0 x 1			
	Serial Port COM1	RS232,RS422/RS485			
	Serial Port COM2	RS232,RS485			
	Serial Port COM3	RS485			
	Ethernet	YES			
	CAN	YES			
Permanent Calendar		Built-in			
Power	Power Supply	24V DC(12-28V DC)			
	Power Consumption	<10W			
Dimension	Enclosure	ABS			
	Dimension(mm)	200.1W*146.0H*36.5D	271.8W*190.4H*41.2D		298.0W*223.0H*53.5D
	Mounting Size(mm)	192.0W*138.0H	260.0W*179.0H		288.0W*212.0H
	Weight(KG)	0.6	1.2		1.9
Environment	Protection	IP65 (Front panel)			
	Storage Environment	Storage :-30℃ ~ 70℃; Working: -10℃ ~ 60℃			
	Working Environment	10 ~ 90%RH(Non-condensing)			
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z direction 2G/30 minutes)			
CE Certification		CE Marked			
FCC Certification		FCC Class A			
Software		PI Studio			
Remote Control		Optional			

PI9000 SPECIFICATIONS

High-end HMI




Model	PI9120	PI9150

OS		Wecon OS based on Linux QT		
CPU		Cortex A9 1.4GHz		
Touch Screen		High precision four- wire resistive		
Display	Screen Size	12 Inch	15 Inch	
	Resolution	1920*1080	1920*1080	
	Brightness	220cd/m^2	220cd/m^2	
	Contrast Ration	1000:1	800:1	
	Backlight	LED		
	Backlight Life Time	10,000 Hours	15,000 Hours	
	Colors	16,000K Colors		
Storage	Flash	4GB EMMC		
	RAM	DDRIII 512MB		
	SD Card	Compatible		
I/O ports	USB	USB Host:USB2.0x1 ; USB Client:USB2.0x1		
	Serial Port COM1	RS232, RS422/RS485		
	Serial Port COM2	RS232,RS485		
	Serial Port COM3	RS485		
	Ethernet	YES		
	WIFI	Optional		
	4G Card	Optional		
Permanent Calendar		Built-in		
Power	Power Supply	24V DC(12~28V DC)		
	Power Consumption	<20W		
Dimension	Enclosure	Aluminium		
	Dimension (mm)	312.6W*208.9H*49.9D	402.9W*253.2H*47.0D	
	Mounting Size (mm)	306.0W*202.0H	394.0W*244.0H	
	Weight (KG)	2.2	3.1	
Environment	Protection	IP65(Front panel)		
	Storage Environment	Storage : -30℃~70℃ ; Working : 0℃~50℃		
	Working Environment	10 ~ 90%RH(Non-condensing)		
	Vibration Resistance	10 ~ 25 Hz (X,Y,Z direction 2G/3D minutes)		
CE Certification		CE Marked		
FCC Certification		FCC Class A		
Software		PI Studio		
Remote Control		Optional		

LEVI SERIES SPECIFICATIONS

Standard HMI



Model	LEVI2035T	LEVI2043T	LEVI2043E	LEVI2043E-N
General	Screen Size	3.5 Inch	4.3 Inch	4.3 Inch	4.3 Inch
	Resolution	320*240	480*272	480*272	480*272
	Colors	65536 colors			
	Brightness	330 cd/m²	450 cd/m²	450 cd/m²	450 cd/m²
	Backlight Type	LED			
	Touch Screen	High precision four-wire resistive			
	Backlight Life Time	>20,000 hours			
	CPU	32-bits 300MHz RISC			
	Storage	128M FLASH + 64M DDRAM			
	RTC	256KB+real time clock			
	Printer Port	Serial Port Printer			
	USB Port	Micro-USB	USB	Micro-USB	Micro-USB
	SD Card	--			
	COM COM1	RS422/RS485			
	COM COM2	RS232			
	COM COM3	--			
Power	Rated Power	< 5W			
	Power Supply	DC24V （12 ~ 28V DC）			
	Allowed Power Fail	< 5ms			
	Insulation Resistance	>20MΩ500VDC			
	Withstand Voltage	500V AC <1 minute			
Dimension	Enclosure	ABS, Black			
	Dimension (mm)	96.0W*81.0H*33.0D	141.4W*85.4H*38.9D	142.0W*86.0H*30.3D	142.0W*86.0H*30.3D
	Mounting Size (mm)	91.0W* 73.0H	131.0W*79.0H	131.0W* 78.0H	131.0W* 78.0H
	Net /Gross (KG)	0.14/0.26	0.23 /0.39	0.19/0.30	0.19/0.30
Environment	Temperature	Working Temperature： -10 ~ 60℃； Storage Temperature： -20 ~ 70℃			
	Humidity	10 ~ 85%RH (Non-condensing)			
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z direction 2G/30 minutes)			
	Cooling	Air Cooling			
Extension	Ethernet	--	--	--	YES
Protection		IP65 ((Front panel))			
CE Certification		CE Marked			
FCC Certification		FCC Class A			

LEVI SERIES SPECIFICATIONS

Standard HMI



Model	LEVI2070	LEVI700ML	LEVI102ML
General	Screen Size	7 Inch	7 Inch	10.2 Inch
	Resolution	800*480	800*480	800*480
	Colors	65536 colors	65536 colors	65536 colors
	Brightness	250cd/m²	250cd/m²	350cd/m²
	Backlight Type	LED		
	Touch Screen	High precision four-wire resistive		
	Backlight Life Time	>20,000 hours		
	CPU	32-bits 300MHz RISC		
	Storage	128M FLASH + 64M DDRAM		
	RTC	256KB+real time clock		
	Printer Port	Serial Port Printer		
	USB Port	USB Host + USB Client		
	SD Card	--	--	--
	COM COM1	RS422/RS485	RS422/RS485	RS232/RS422/RS485
	COM COM2	RS232	RS232	RS232
	COM COM3	--	--	--
Power	Rated Power	< 8W	< 8W	< 8W
	Power Supply	DC24V （12 ~ 28V DC）		
	Allowed Power Fail	< 5ms		
	Insulation Resistance	> 20MΩ500VDC		
	Withstand Voltage	500V AC <1 minute		
Dimension	Enclosure	Grey, PC+ABS	ABS,Black	ABS,Black
	Dimension (mm)	201.0W*147.0H*39.0D	201.0W*146.0H*36.0D	271.8W*190.7H*41.2D
	Mounting Size (mm)	192.0W*138.0H	192.0W*138.0H	260.0W*179.0H
	Net /Gross (KG)	0.5 /0.74	0.56 /0.80	1.04 /1.37
Environment	Temperature	Working Temperature： -10 ~ 60℃； Storage Temperature： -20 ~ 70℃		
	Humidity	10 ~ 85%RH (Non-condensing)		
	Vibration Resistance	10 ~ 25 Hz (X、Y、Z direction 2G/30 minutes)		
	Cooling	Air cooling		
Protection		IP65 (Front panel)		
CE Certification		CE Marked		
FCC Certification		FCC Class A		

WECON VNET IIoT SYSTEM

VNET IoT

Wecon VNET System and V-BOX are designed to provide a safe and reliable Industrial-IoT System to users which ends independent operation of each device. We have used the latest technologies of Clouds, IoT and Internet. The advanced concept and technology of Industry 4.0 facilitates small and medium scale industry to reduce information flow and management cost as well as increase productivity. It also helps to enhance after-sales Services.

VNET SYSTEM

Connectivity of Devices to Users;

Connectivity of Devices to Devices;

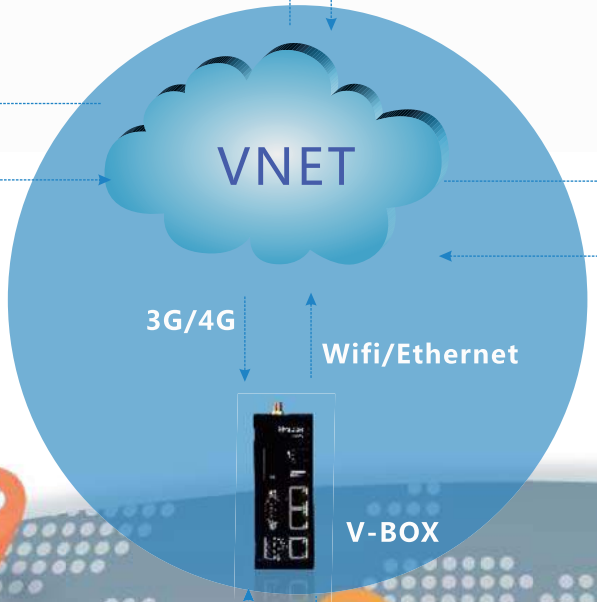
Connectivity of Devices to Information Systems;



Connectivity of devices to devices

- The devices will not work alone. For example, A packaging machine situated in Rome and another packaging machine situated in Shanghai can be synchronized.
- Real-time data sharing: Reduces the transmission process and transmission chain.
- This data sharing technology is also secure, reliable and economical.





WECON VNET IIoT SYSTEM

V-BOX Main Features

- To obtain data through Serial communication (RS232/RS485/Ethernet) from controllers;
- Most brands of PLCs and controllers are supported;
- It connects to cloud platform through 2G/3G/4G/Ethernet;
- It can send E-mail(developing);
- OPC access, HTTP developer interface;
- Cloud configuration function to realize communication between V-BOX and V-BOX;
- Historical data and alarm data that stored in the cloud can be exported as needed;
- PLC remote monitoring and remote plc program download via VPN by remote serial port and ethernet.



Connectivity of Devices to Users

- Smart App real-time monitoring of running status and history data
- Remote access and control
- Obtain data from email

- OPC
- RDB(Remote DataBase) Interface
- User-definded Interface
- PMS(Production Management System
- ERP System
- CRM System
- After-sales Service Management System

Connectivity of Devices to Information Systems

- With the help of OPC Server, RDB(Remote Data Base) and User defined data port can automatically upload the device data to information system;
- Distributes production instructions from Information Systems to devices directly;
- Real-time monitoring of Devices.

WECON VNET IIoT SYSTEM

"*" remarks in developing

VNET System Technology Architecture »

VNET System Operation

- Presents simplified SCADA screens by Smart V-BOX APP.
- Sending emails through could platform.
- Connects cloud data and OPC system through OPC client, for as to remote control of the database.

Supported devices/protocols

- Supports most brands of PLC Protocols.
- Supports MODBUS and BACNET.
- Supports User-defined Protocol.

Management Features

- Different “Accounts” for the Device vender and the user of Data.
- “View account” can display data of multiple V-boxes.
- Device owner can configure V-BOX remotely and also can organize “Management Account” easily.

Cloud SCADA

- SCADA data save in cloud platform
- “Configuration utility” can configure simplified SCADA screens of all “View Accounts”.



WECON VNET IIoT SYSTEM

V-NET Cloud SCADA »

V-Box Cloud configure platform can collect the information from the devices, summary all the data across several V-boxs, then displays the data in a more easy-to-understand way, and stores necessary data for analyzing or sending command.

After the settings are completed, the configuration screens can be viewed synchronously on the V-Box APP and V-Box PC end software. It could be a better remote monitoring solution for industry filed.

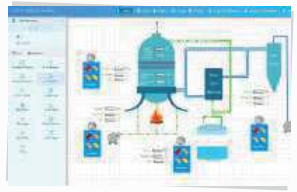
Centralized Monitoring

Sophisticated, intuitive and clear, group management



Configuration Interface

Exquisite pictures, large-capacity, cross-box data integration



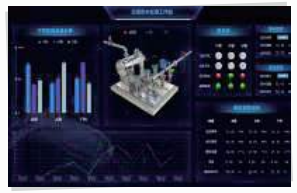
Project Management

Manage each project in all aspects and coordinate the editing design.



Browse Interface

Dynamic interface, exquisite, intuitive, real-time data and alarms information



Login free browsing

Share monitoring screens, non-registered accounts can browse screen.



Authority Management

Set subordinate account permissions, assign permission to different projects to ensure data security



Template Design

The resolution is as small as 256*160 and as large as 1920*1080, which supports customization to meet different user needs.



V-BOX SPECIFICATIONS

S Series





Model	V-BOX S-00	V-BOX S-4G	V-BOX S-3N	V-BOX S-NG
Hardware				
OS	Linux			
CPU	Cortex A8 600MHz			
Storage				
Flash	128MB			
RAM	DDRIII 128MB			
SD Card	YES			
I/O Ports				
USB Host	USB 2.0 ×1			
USB Client	DEVICE USB ×1			
Serial Port	COM1：RS232/RS485/RS422 COM2：RS232/RS485，RS485		COM1：RS232，RS422/RS485	
Internet Port	1	1	3	3
WIFI Module	YES			
2G/3G/4G Module	N/A	4G	N/A	4G
Power				
Power Supply	24VDC（12~28VDC）			
Power Consumption	<10w			
Dimension				
Enclosure	Aluminum			
Dimension（W*H*D）	128.0mm*119.0mm*44.3mm			
Weight（KG）	0.34			
Environment				
Vibration Resistance	10~25Hz（X、Y、Z direction 2G/30 minutes）			
Storage Temperature	-30℃~70℃			
Working Temperature	-10℃~60℃			
Relative Humidity	10~90%RH（Non-condensing）			
CE Certification	CE Marked			
FCC Certification	FCC Class A			
Software				
Real-time Monitoring Points	300	500	600	600
Alarm Monitoring Points	200	300	300	300
History Monitoring Points	30	100	100	100
History Storage Days	90 days	180 days	180 days	180 days
Normal Pass-through	YES			
VPN Pass-through	N/A	YES	YES	YES
HTTP Interface	YES			
Remote Update	YES			
Configuration Backup	YES			
Off-line Transmission	YES			

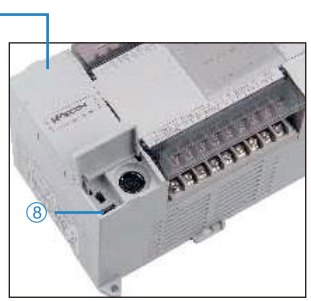
V-BOX SPECIFICATIONS

E Series



Model	V-BOX E-00	V-BOX E-2G	V-BOX E-4G
Hardware			
OS	Linux		
CPU	ARM9 300MHz		
Storage			
Flash	128MB		
RAM	DDRIII 128MB		
SD Card	YES		
I/O Ports			
USB	OTG USB /DEVICE USB		
Serial Port	COM1：RS232，RS422/RS485		
Internet Port	1		
WIFI Module	N/A		
2G/3G/4G Module	N/A	2G	4G
Power			
Power Supply	24VDC（12~28VDC）		
Power Consumption	<10w		
Dimension			
Enclosure	Cold Rolled Plate		
Dimension（W*H*D）	118.6mm*87.0mm*26.8mm		
Wall Hanging Dimension	110.0mm*15.6mm		
Weight（KG）	0.26		
Environment			
Vibration Resistance	10~25Hz（X、Y、Z direction 2G/30 minutes）		
Storage Temperature	-30℃~70℃		
Working Temperature	-10℃~60℃		
Relative Humidity	10~90%RH（Non-condensing）		
CE Certification	CE marked		
FCC Certification	FCC Class A		
Software			
Real-time Monitoring Points	200	230	230
Alarm Monitoring Points	50	60	60
History Monitoring Points	20	30	30
History Storage Days	60 days	90 days	90 days
Normal Pass-through	YES	N/A	N/A
VPN Pass-through	N/A		
HTTP Interface	YES		
Remote Update	YES		
Configuration Backup	YES		
Off-line Transmission	YES		

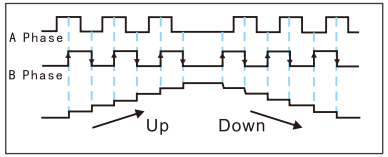
PLC Introduction



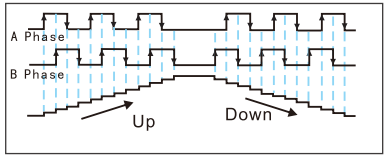
1. Universal Power Supply Design —85~264V AC 50/60 HZ, wide range power supply.
2. All core components used are from well-known global brands.
3. The 'Three layer coating' ensures the reliability in harsh environment.
4. Flash memory data storage.
5. 200 KHz high speed.
6. Com port – 600 TVS, static 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).



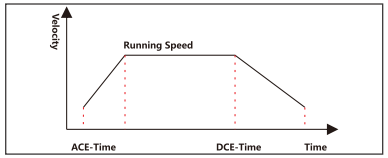
2-doubling



4-doubling

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

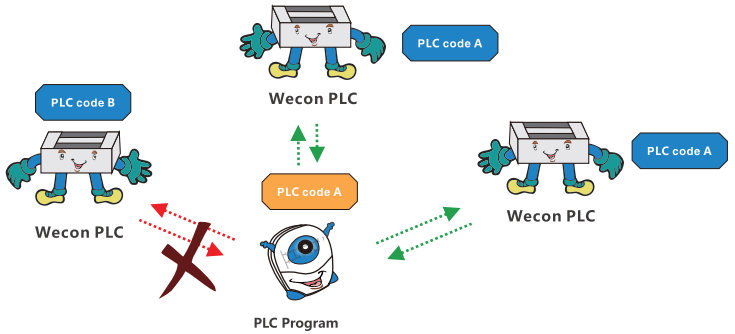
The PLC encryption includes project encryption, upload password and download password. All of those passwords can be used for the entire ladder program.

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.



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

APPLICATION

PLC LX3VP Series

- Supports 4 independent channels of 200 KHz high speed pulse output simultaneously. The maximum frequency for each channel is 200 KHz (either in acceleration or deceleration).
- Supports 64 K step ladder diagram.
- Supports N:N PLC network up to 8 PLCs.
- T50~T191 can be converted to 1 ms non-cumulative timer by using special function register M8028.

Printing machine includes several parts, including the front edge deliver component segment (with several printing segment), slot and dice segment. By using N:N communication protocol, several PLCs can communicate with each other which improves production efficiency significantly.

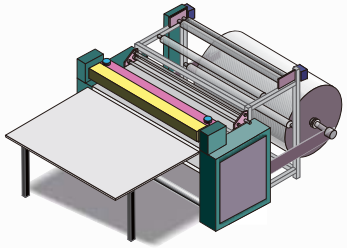
Printing machine



PLC LX3VE Series

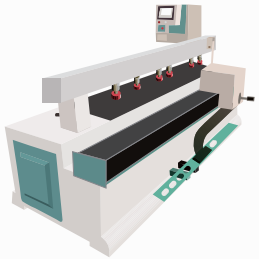
- Up to 4 channels each of 200 KHz high speed pulse outputs are supported, all 4 channels can work simultaneously.
- Supports 32k steps ladder diagram.
- Supports electronic CAM.
- Supports flying cut and rotary cut.
- Supports jitter pulse output.
- Supports S-type curve to meet special demands.

Crosscutting Machine



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.

Side Cutting Machine



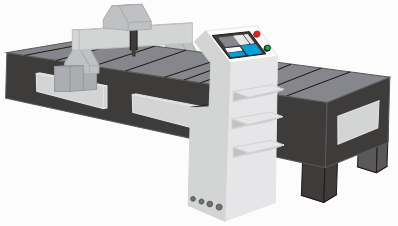
Side Cutting Machine is a CNC machine for punching of holes in the side of the plate type furniture. It is suitable for horizontal hole machining and horizontal slotting. It has features like, Infrared automatic induction, accurate detection of the hole position, accurate movement distance, low error,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

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 electronic CAM.
- Supports Jitter pulse output.

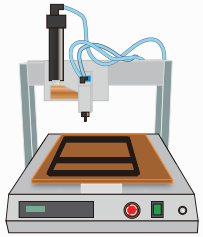
APPLICATION

Cutting Machine



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.

Glue Injector Machine/Glue Dispenser



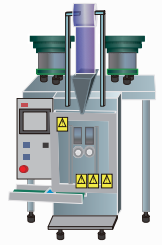
Glue injector machine realizes multi-axis path positioning control through linear arc interpolation function and operate it according to the set path. It can be set to semi-automatic, fully automatic, or adjustment modes.

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.

Screw Packaging Machine

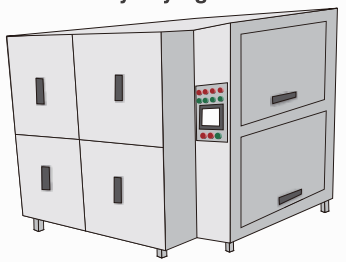


LX3V-4LTC

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.

Battery Drying Oven



EXPANSION MODULE

PLC EXPANSION MODULE

- **Multi-module connection :**
  Support up to 16 analogue modules, 256 input points and 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**

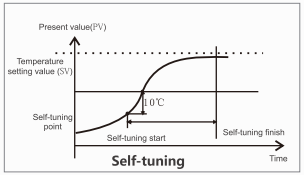
S-type sensor:-50~+1768 (degree centigrade)
R-type sensor:-50~+1768 (degree centigrade)
B-type sensor:+250~+1820 (degree centigrade)
N-type sensor:-200~+1300 (degree centigrade)
E-type sensor:--200~+1000 (degree centigrade)
T-type sensor:-200~+400 (degree centigrade)
J-type sensor: -210~+600 (degree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

- **AD module resolution :16 bits**
- **WT module resolution :24 bits**



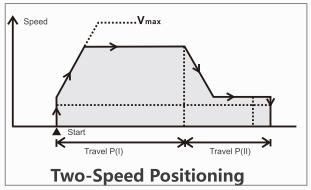
LX3V-8iTC

- 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.



LX3V-4PGA

- Supports 4-channel high speed pulse outputs.
- Supports zero point return, JOG, interrupt position and two-speed 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

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℃	-1000~6000
TC	14	Sensor:Ktype-100~1200℃	-1000~12000
TC	14	Sensor:Jtype-100~600℃	-1000~6000
DAV	12	Output Voltage:-10~10V	-2000~2000
ADV	12	Input Voltage:-10~10V	-2000~2000

Communication Expansion Board

LX3V-2RS485-BD



LX3V-2RS485-BD can add two additional RS485 communication ports.

- Data transfer without protocol
  It supports all type of devices with RS-485 communication without protocol. e.g. bar code reader and printer. Data's sending and receiving is implemented by the RS instruction.
- Special protocol for data transferring
  Using a special protocol, data transmission can be possible based on 1: N on RS-485 communication.

LX3VP-ETH-BD



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.

LX3V SERIES PLC PRODUCT

LX3V Series »

PLC Model	I/O	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	1	1	YES	AC (DC)
LX3V-1212MT-A(D)	12/12	Transistor	137x107x87	2	2	1	1	YES	AC (DC)
LX3V-1212MT4H-A(D)	12/12	Transistor	137x107x87	2	4	1	1	YES	AC (DC)
LX3V-1212MR2H-A(D)	12/12	Mix	137x107x87	2	2	1	1	YES	AC (DC)
LX3V-1412MR-A(D)	14/12	Relay	137x107x87	2	0	1	1	YES	AC (DC)
LX3V-1412MT-A(D)	14/12	Transistor	137x107x87	2	2	1	1	YES	AC (DC)
LX3V-1412MT4H-A(D)	14/12	Transistor	137x107x87	2	4	1	1	YES	AC (DC)
LX3V-1412MR2H-A(D)	14/12	Mix	137x107x87	2	2	1	1	YES	AC (DC)
LX3V-1616MR-A(D)	16/16	Relay	175x107x87	2	0	1	2	YES	AC (DC)
LX3V-1616MT-A(D)	16/16	Transistor	175x107x87	2	2	1	2	YES	AC (DC)
LX3V-1616MT4H-A(D)	16/16	Transistor	175x107x87	2	4	1	2	YES	AC (DC)
LX3V-1616MR2H-A(D)	16/16	Mix	175x107x87	2	2	1	2	YES	AC (DC)
LX3V-2416MR-A(D)	24/16	Relay	175x107x87	2	0	1	2	YES	AC (DC)
LX3V-2416MT-A(D)	24/16	Transistor	175x107x87	2	2	1	2	YES	AC (DC)
LX3V-2416MT4H-A(D)	24/16	Transistor	175x107x87	2	4	1	2	YES	AC (DC)
LX3V-2416MR2H-A(D)	24/16	Mix	175x107x87	2	2	1	2	YES	AC (DC)
LX3V-2424MR-A(D)	24/24	Relay	220x107x87	2	0	1	2	YES	AC (DC)
LX3V-2424MT-A(D)	24/24	Transistor	220x107x87	2	2	1	2	YES	AC (DC)
LX3V-2424MT4H-A(D)	24/24	Transistor	220x107x87	2	4	1	2	YES	AC (DC)
LX3V-2424MR2H-A(D)	24/24	Mix	220x107x87	2	2	1	2	YES	AC (DC)
LX3V-3624MR-A(D)	36/24	Relay	220x107x87	2	0	1	2	YES	AC (DC)
LX3V-3624MT-A(D)	36/24	Transistor	220x107x87	2	2	1	2	YES	AC (DC)
LX3V-3624MT4H-A(D)	36/24	Transistor	220x107x87	2	4	1	2	YES	AC (DC)
LX3V-3624MR2H-A(D)	36/24	Mix	220x107x87	2	2	1	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	1	N/A	1	YES	AC (DC)
LX3VP-1212MT-A(D)	12/12	Transistor	137x107x87	2	2	1	N/A	1	YES	AC (DC)
LX3VP-1212MT4H-A(D)	12/12	Transistor	137x107x87	2	4	1	N/A	1	YES	AC (DC)
LX3VP-1212MR2H-A(D)	12/12	Mix	137x107x87	2	2	1	N/A	1	YES	AC (DC)
LX3VP-1412MR-A(D)	14/12	Relay	137x107x87	2	0	1	N/A	1	YES	AC (DC)
LX3VP-1412MT-A(D)	14/12	Transistor	137x107x87	2	2	1	N/A	1	YES	AC (DC)
LX3VP-1412MT4H-A(D)	14/12	Transistor	137x107x87	2	4	1	N/A	1	YES	AC (DC)
LX3VP-1412MR2H-A(D)	14/12	Mix	137x107x87	2	2	1	N/A	1	YES	AC (DC)
LX3VP-1616MR-A(D)	16/16	Relay	175x107x87	2	0	1	N/A	2	YES	AC (DC)
LX3VP-1616MT-A(D)	16/16	Transistor	175x107x87	2	2	1	N/A	2	YES	AC (DC)
LX3VP-1616MT4H-A(D)	16/16	Transistor	175x107x87	2	4	1	N/A	2	YES	AC (DC)
LX3VP-1616MR2H-A(D)	16/16	Mix	175x107x87	2	2	1	N/A	2	YES	AC (DC)
LX3VP-2416MR-A(D)	24/16	Relay	175x107x87	2	0	1	Optional	2	YES	AC (DC)
LX3VP-2416MT-A(D)	24/16	Transistor	175x107x87	2	2	1	Optional	2	YES	AC (DC)
LX3VP-2416MT4H-A(D)	24/16	Transistor	175x107x87	2	4	1	Optional	2	YES	AC (DC)
LX3VP-2416MR2H-A(D)	24/16	Mix	175x107x87	2	2	1	Optional	2	YES	AC (DC)
LX3VP-2424MR-A(D)	24/24	Relay	220x107x87	2	0	1	N/A	2	YES	AC (DC)
LX3VP-2424MT-A(D)	24/24	Transistor	220x107x87	2	2	1	N/A	2	YES	AC (DC)
LX3VP-2424MT4H-A(D)	24/24	Transistor	220x107x87	2	4	1	N/A	2	YES	AC (DC)
LX3VP-2424MR2H-A(D)	24/24	Mix	220x107x87	2	2	1	N/A	2	YES	AC (DC)
LX3VP-3624MR-A(D)	36/24	Relay	220x107x87	2	0	1	N/A	2	YES	AC (DC)
LX3VP-3624MT-A(D)	36/24	Transistor	220x107x87	2	2	1	N/A	2	YES	AC (DC)
LX3VP-3624MT4H-A(D)	36/24	Transistor	220x107x87	2	4	1	N/A	2	YES	AC (DC)
LX3VP-3624MR2H-A(D)	36/24	Mix	220x107x87	2	2	1	N/A	2	YES	AC (DC)

LX3VE&3VM 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	1	1	YES	AC(DC)
LX3VE-1412MT4H-A	14/12	Transistor	137x107x87	2	YES	4	1	1	YES	AC(DC)
LX3VE-1616MT-A	16/16	Transistor	175x107x87	2	YES	2	1	2	YES	AC(DC)
LX3VE-1616MT4H-A	16/16	Transistor	175x107x87	2	YES	4	1	2	YES	AC(DC)
LX3VE-2416MT-A	24/16	Transistor	175x107x87	2	YES	2	1	2	YES	AC(DC)
LX3VE-2416MT4H-A	24/16	Transistor	175x107x87	2	YES	4	1	2	YES	AC(DC)
LX3VE-2424MT-A	24/24	Transistor	220x107x87	2	YES	2	1	2	YES	AC(DC)
LX3VE-2424MT4H-A	24/24	Transistor	220x107x87	2	YES	4	1	2	YES	AC(DC)
LX3VE-3624MT-A	36/24	Transistor	220x107x87	2	YES	2	1	2	YES	AC(DC)
LX3VE-3624MT4H-A	36/24	Transistor	220x107x87	2	YES	4	1	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	1	1	YES	AC(DC)
LX3VM-1412MT4H-A	14/12	Transistor	137x107x87	2	YES	YES	4	1	1	YES	AC(DC)
LX3VM-1616MT-A	16/16	Transistor	175x107x87	2	YES	YES	2	1	2	YES	AC(DC)
LX3VM-1616MT4H-A	16/16	Transistor	175x107x87	2	YES	YES	4	1	2	YES	AC(DC)
LX3VM-2416MT-A	24/16	Transistor	175x107x87	2	YES	YES	2	1	2	YES	AC(DC)
LX3VM-2416MT4H-A	24/16	Transistor	175x107x87	2	YES	YES	4	1	2	YES	AC(DC)
LX3VM-2424MT-A	24/24	Transistor	220x107x87	2	YES	YES	2	1	2	YES	AC(DC)
LX3VM-2424MT4H-A	24/24	Transistor	220x107x87	2	YES	YES	4	1	2	YES	AC(DC)
LX3VM-3624MT-A	36/24	Transistor	220x107x87	2	YES	YES	2	1	2	YES	AC(DC)
LX3VM-3624MT4H-A	36/24	Transistor	220x107x87	2	YES	YES	4	1	2	YES	AC(DC)

MODULE&BD MODULE PRODUCT



PLC Expansion Module

Module	Function	Module	Specification
LX3V-8EX	8 Input	LX3V-4AD	4 * Analog Input
LX3V-8EYR	8 Relay Output	LX3V-4DA	4 * Analog Output
LX3V-8EYT	8 Transistor Output	LX3V-4PT	4 * Thermal Resistance Input
LX3V-16EX	16 Input	LX3V-4TC	4 * Thermocouple Input
LX3V-16EYR	16 Relay Output	LX3V-4LTC	4 * TC with Isolation(PID Control)
LX3V-16EYT	16 Transistor Output	LX3V-8iTC	8*Thermocouple Input
LX3V-1WT	1 * Weighting	LX3V-2WT	2 * Weighting
LX3V-4PGA	4*pulse generator (Advanced)	LX3V-4PGB	4*pulse generator (Basic)

PLC BD Module

BD Module	Function	BD Module	Function
LX3V-2ADI2DAI-BD	2*Analog Input/Analog Output(4~20mA)	LX3V-2TC-BD	2*Thermocouple Input
LX3V-2ADV-BD	2*Analog Voltage Input(-10v-10v)	LX3V-2TC2DAI-BD	2*Thermocouple Input ; 2*Analog Output(4~20mA)
LX3V-2ADI-BD	2*Analog Current Input(4-20mA)	LX3V-2PT-BD	2*Thermal Resistance Input
LX3V-2DAI-BD	2*Analog Current Output(4-20mA)	LX3V-2PT2DAI-BD	2*Thermal Resistance Input; 2*Analog Output(4~20mA)
LX3V-2DAV-BD	2*Analog Voltage Output(-10v-10v)	LX3V-2PT2DAV-BD	2*Thermal Resistance Input; 2*Analog Voltage Output(-10v~10v)
LX3V-4ADV-BD	4*Analog Input(-10V~10V)	LX3V-2PT2ADV-BD	2*Thermal Resistance Input; 2*Analog Voltage Output(-10v~10v)
LX3V-4ADI-BD	4*Analog Input(4~20mA)	LX3V-2RS485-BD	2*RS485 Communication
LX3VP-ETH-BD	1*Ethernet Communication	LX3V-2ADV2ADV-BD	2*Analog Input/Output(-10v~10v)
LX3V-2PTS-BD	2*Thermal Resistance Input, Precision>0.1℃		

PLC SPECIFICATIONS

General

	LX3V Series	LX3VP Series	LX3VE/3VM Series
Running Mode	Round Scan/Interrupt		
Programming	Instruction List/Ladder		
Total Instructions	Basic Instructions:27/Applied Instruction:136+2		140
Execute time	Basic Instructions:0.06us/Applied Instruction:1~10us		
System Storage	16K	64K	32K
Download/Monitoring	Serial Programming Cable/MiniUSB		
High Speed Pulse Output	Transistor: 2 channels(4 channel optional)/Relay N/A(2 channel optional)		
External Interrupt	6 Channels		
Timer Interrupt	3 Channels		
Holding Addresses	Adjustable		
Storage	FLASH		
Filter	For all X input terminals		
Serial Port	COM1：RS422 or RS485 COM2：RS485		
Temperature	Working Temperature：0~55℃/ Storage Temperature：0~70℃		
Humidity	35~85%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

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

PLC SPECIFICATIONS

AC Power Supply

Item	LX3V(P/E/M)-0806M/1208M/1212M/1412M	LX3V(P/E/M)1616M/2416M/3624M
Voltage	AC 85~265V 50~60HZ	
Power Outage Time	10ms	
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	<15 A1ms/DC 24V
Impact Current	<30W