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Tiktok



Selection
Scheme Entry



凌臣PLC资料



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S SERIES OF SUPER FUNCTIONAL SMALL PLC 2026

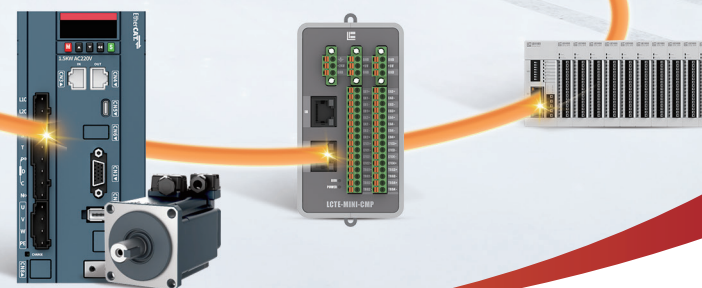
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* All specifications, dimensions and construction shown in this catalogue are
subject to change without prior notice.



S Series Super functional small PLC

Optimize your device development



Product features

HIGH PERFORMANCE

- 4-core 1.2G high-performance CPU
- NS level instruction processing speed
- 32 axis 4ms bus cycle

MULTI PROTOCOL STACK

- Supports EtherCAT protocol
- Supports EtherNet/IP protocol
- Supports Modbus TCP protocol
- Supports Modbus RTU protocol

MULTI-FUNCTIONAL

- High speed counting probe/flying probe/ External Interrupt/PWM
- High speed pulse output
- Three segment IP address network port ensures information security.

STRONG OPERATION CONTROL

- Up to 32 axis EtherCAT bus 5 high-speed pulse outputs.
- Double BD left expansion, right expansion 32 modules.
- Three network ports/RS485/RS232 Type-C/SD card.



Company Profile

Suzhou Lingchen Acquisition Computer Co.,Ltd was established in 2001. It is an enterprise that adheres to the business philosophy of win-win with customers and creating value for their solutions. Provide customers with core components and system solutions for various automated equipment such as testing and measurement, motion control, machine vision, robots, etc. Lingchen Technology started to establish the Lingchen LCT brand in 2017, and has developed products including industrial computers, PLC controllers, EtherCAT stepper drivers, PCI/PCIe motion control cards, remote IO modules, etc., providing our customers with more cost-effective solutions.

Lingchen Technology attaches great importance to R&D investment, with a total of 400 employees, of which R&D technicians account for over 50%. The company also established an automation training institution based on PC Base in 2014, which has trained a large number of professional and technical talents for the automation industry.

The company maintains long-term and close cooperative relationships with well-known enterprises such as ADLINK, ABB, ACS, TRIO, TOYO, etc.

25787m²
FLOOR AREA

460+
COMPANY EMPLOYEES

7+
NATIONAL BRANCH

CORPORATE MISSION

Promote the development of industrial civilization and make equipment intelligent manufacturing simpler

CORE VALUES

Using leading control technology to achieve professional products and services

CORPORATE VISION

Becoming the preferred brand for global automation components

CORPORATE PHILOSOPHY

Customer achievement, win-win cooperation, craftsmanship spirit, reliability and altruism

S Series "Super Functional" Small PLC

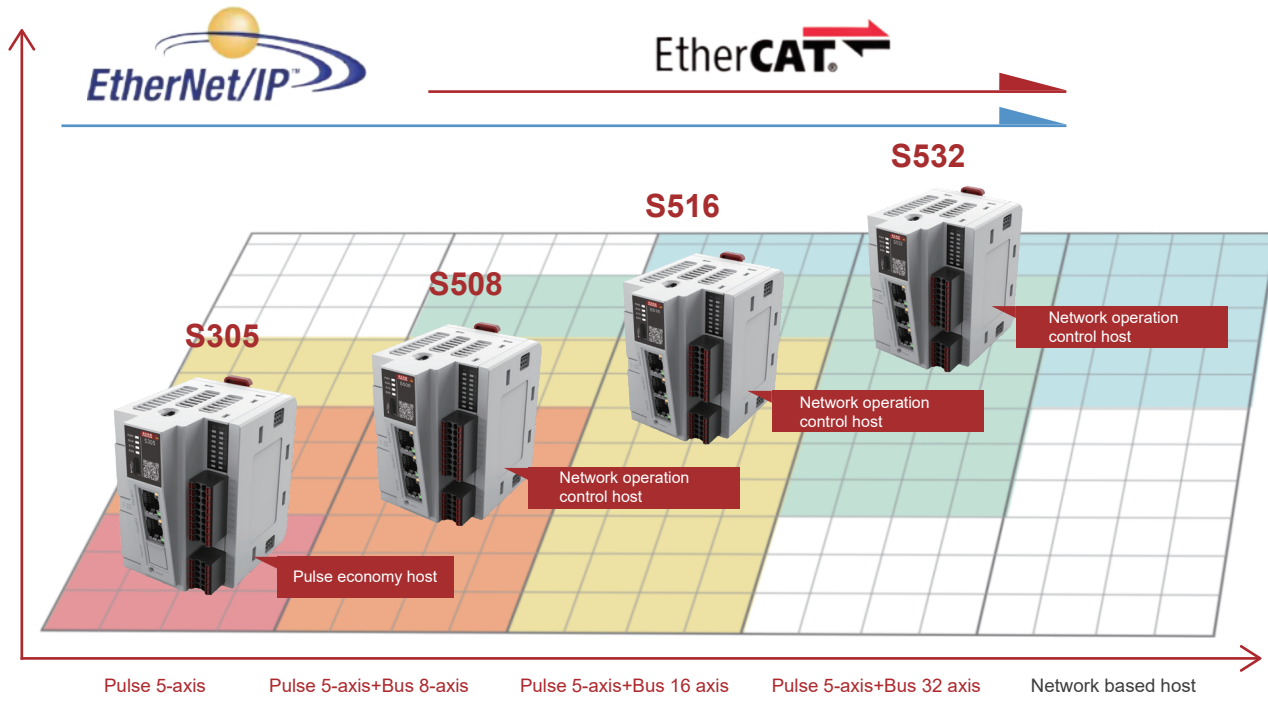
Product Introduction

The S300/S500 series is a new generation of standard medium-sized PLCs launched by Lingchen Technology. Its design and development fully comply with PLCopen specifications and IEC-61131-3 standards, supporting programming languages such as ST, LD, SFC, CFC, etc. With its compact CPU size, modular flexible combination, and high cycle production characteristics, it can adapt to more application scenarios. Supports EtherCAT (S500 only) EtherNet/IP, OPC UA, Modbus TCP, TCP/IP, 2 RS485 channels (expandable up to 3 channels)/expandable 1 RS232 channel. Its development programming platform LCCControlStudio covers complex multi axis applications, discrete single machine applications, and basic logic applications. It can be equipped with Lingchen Technology Industry Process Library to achieve standardized management and development of deduplication, improving development efficiency by at least 50% while reducing talent training costs. The S500 is mainly used in single machine automation equipment and single machine combination production lines for food and beverage, packaging, printing, silicon crystal, medical, SMT peripherals, etc., to meet the needs of improving production efficiency and control accuracy in various scenarios. The S300 is mainly used in process control industries such as HVAC, chemical printing and dyeing, water treatment, sewage treatment, and heat treatment. It can also serve as a network communication station for single machine combination production lines such as logistics, automobiles, and daily necessities, meeting the application requirements of internal and external network isolation, high-speed bus communication, and data processing.

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Product family



4 S Series "Super Functional" Small PLC ADVANTAGES OF LARGE PRODUCTS



Efficient and high-speed



Flexible expansion



Diversified operation control

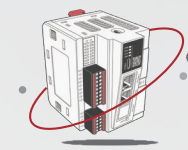
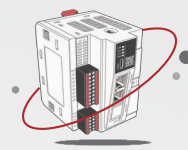


Rich communication



High speed and efficiency

The collision of high real-time, powerful computing, speed, and accuracy helps improve the production efficiency of manufacturing sites



Flexible expansion

Free selection | Dual card slot design | Easy to assemble and disassemble

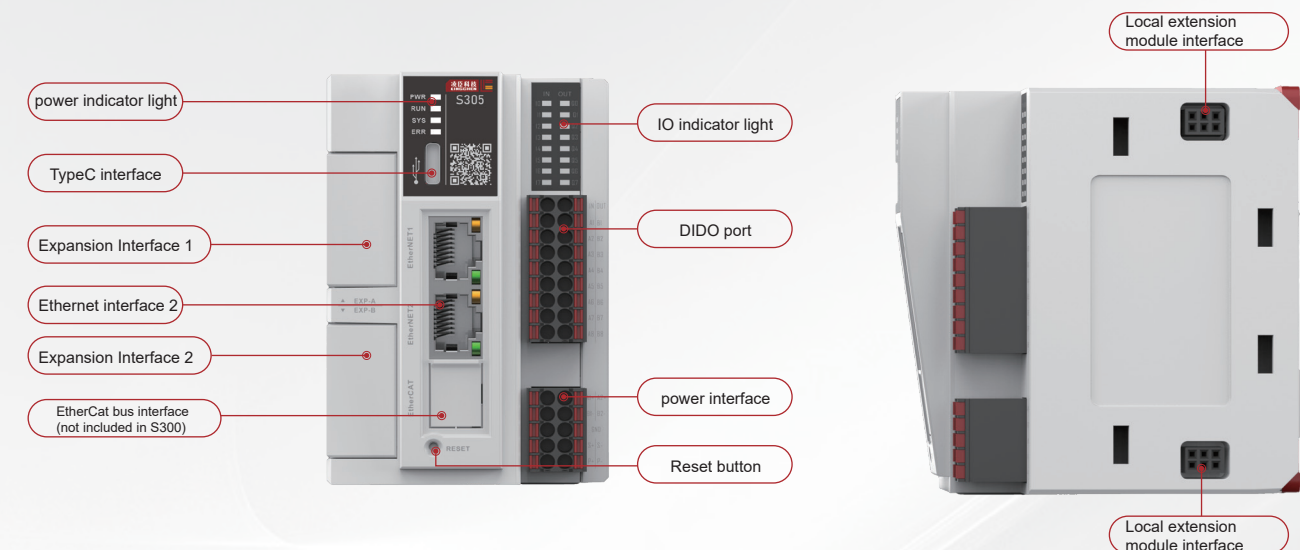
Multi core processing, automatic task scheduling, balancing CPU load, Run more smoothly

Nanosecond level bit processing instruction speed, 7 times faster than traditional Japanese PLC instruction speed

Flexible expansion and rich expansion modules, with a dedicated FPGA high-speed section for the main station Communication between chip and LD series expansion module, with a maximum speed of 5M

Maximum expansion of 32 modules

High response EtherCAT communication, 4ms synchronization cycle for 32 axes, maximum support for 127 EtherCAT slaves



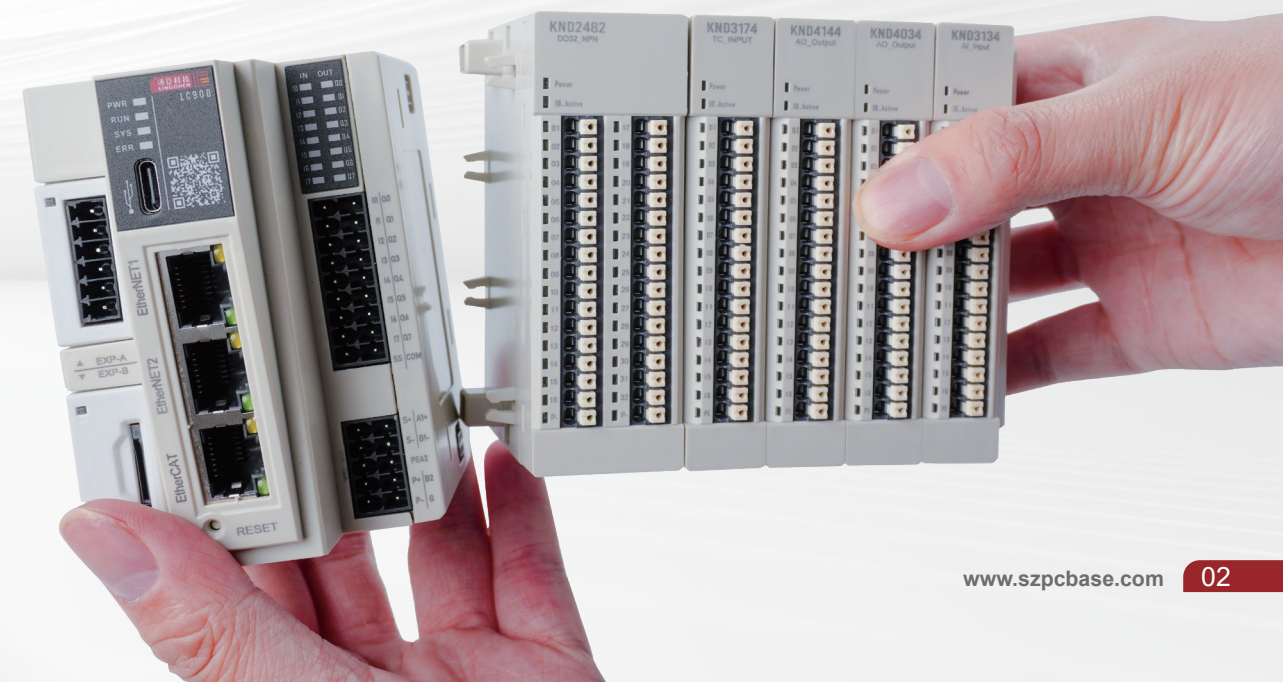
Easy to assemble and disassemble

Press type wiring

Product Introduction

S300/S500 is a new generation of standard medium-sized PLC launched by Lingchen Technology. Its design and development fully comply with PLCopen specifications and IEC-61131-3 standards, supporting programming languages such as ST, LD, SFC, CFC, etc. It has the advantages of high performance, small size, modularity, etc. Among them, S500 is mainly used in single machine automation system equipment and single machine combination production lines for food and beverage, packaging, printing, silicon crystal, medical, SMT peripherals, etc.

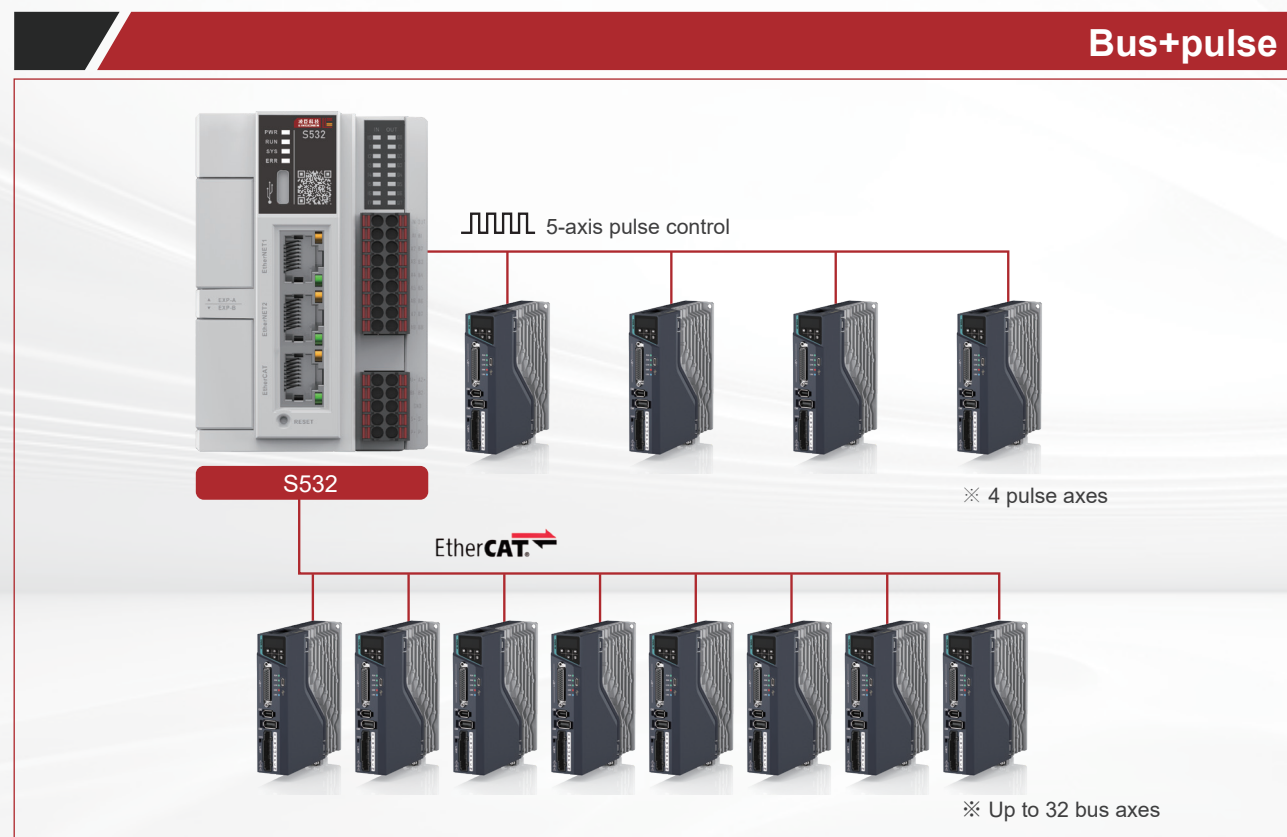
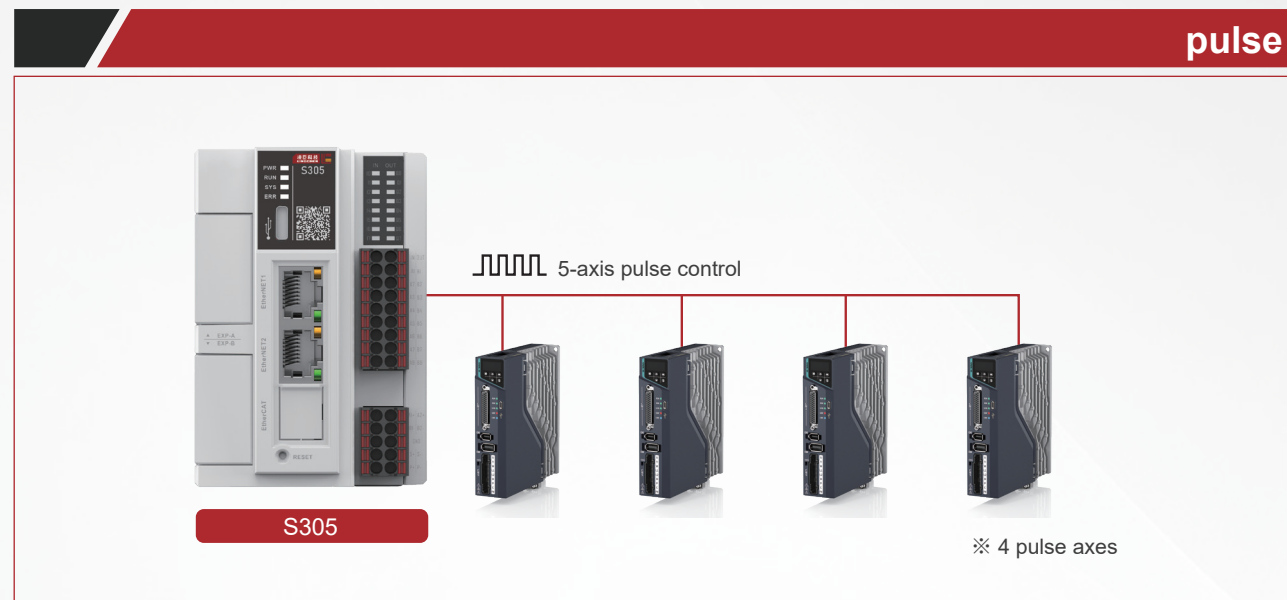
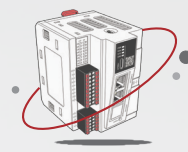
The S300 is mainly used in process control industries such as HVAC, chemical printing and dyeing, water treatment, sewage treatment, and heat treatment. It can also serve as a network communication station for single machine combination production lines such as logistics, automobiles, and daily necessities, meeting the application requirements of internal and external network isolation, high-speed bus communication, and data processing.



Diversified operation control

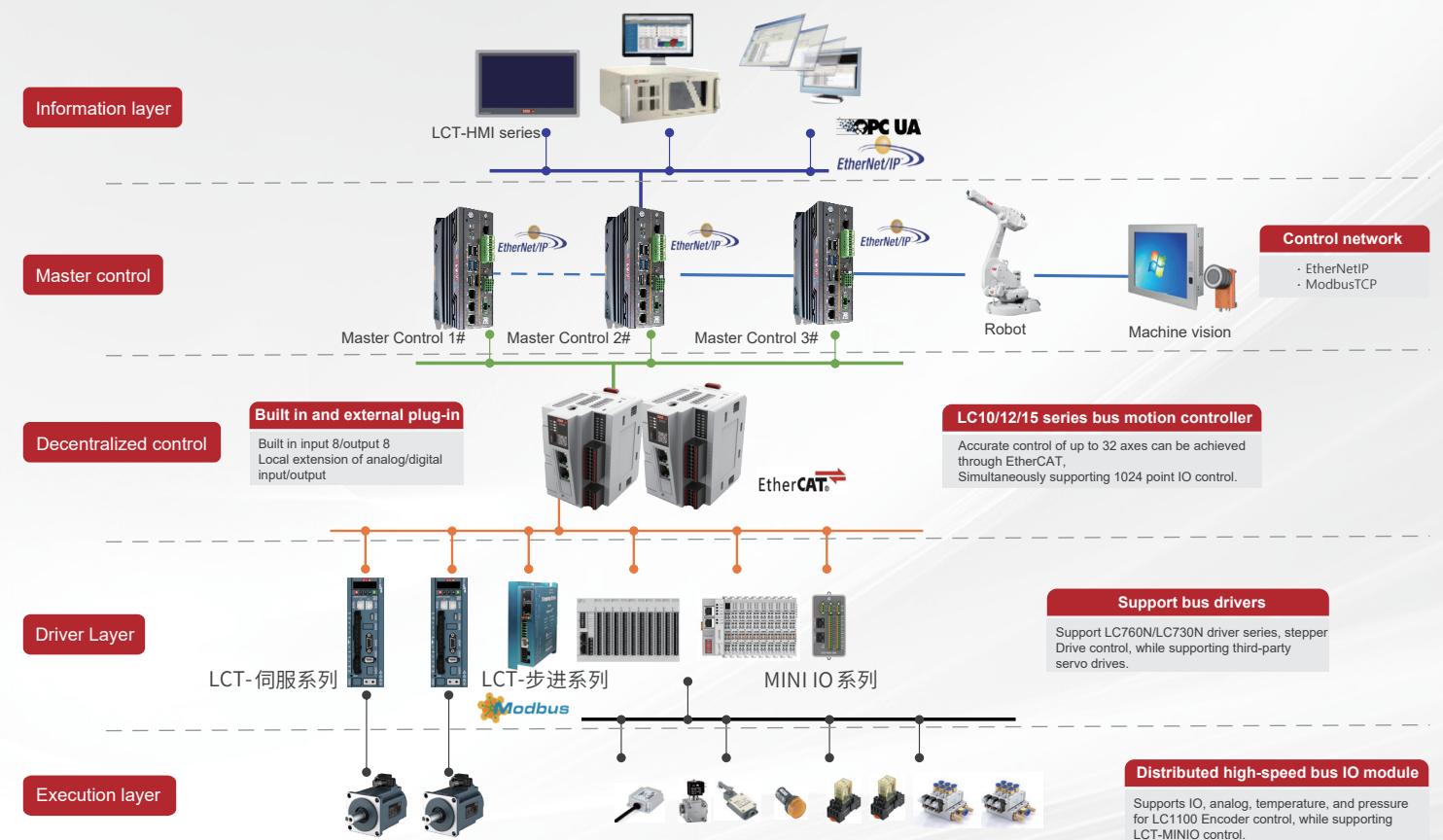
Bus and pulse are flexible and diverse

Multiple axis control modes including bus, pulse, and bus+pulse, suitable for different scenarios; EtherCAT high-speed bus can achieve 4-axis 500 μ s at the fastest, meeting high response requirements.



Rich communication

Flexible system networking supports mainstream bus protocols
Can flexibly network and quickly access peripheral devices, and build production line level network communication



Interconnection, One Network to the End

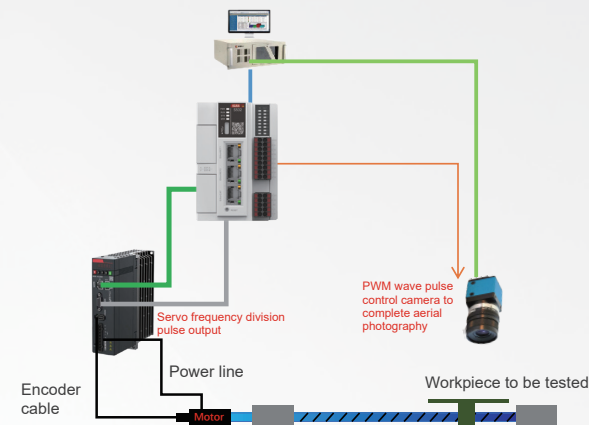
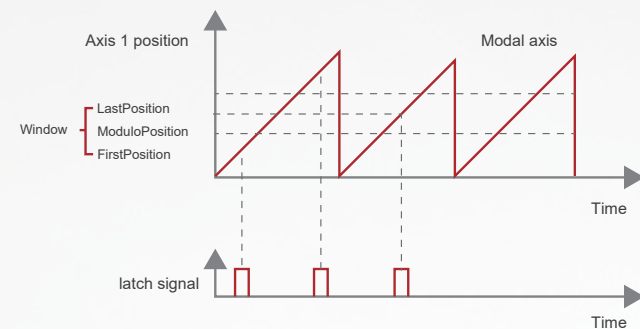
EtherNet/IP: No need for multi protocol conversion, the upper computer can directly access PLC variable names through EtherNet/IP communication. In addition, PLCs can also directly access variables for data exchange through EtherNet/IP communication.

OPC UA: Supports OPC UA Server and can be integrated with MES systems.

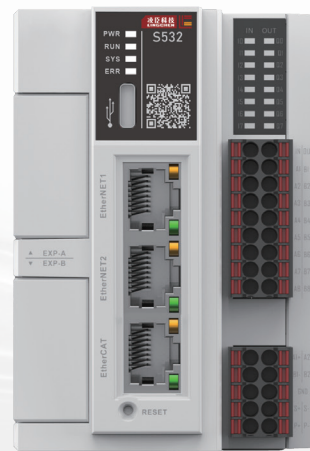
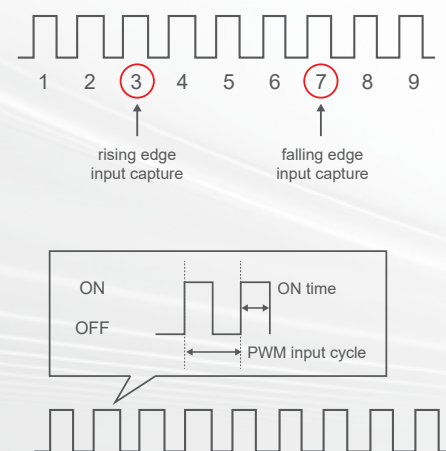
Supports mainstream control protocols such as Modbus TCP and Modbus RTU.

Position latch/position comparison trigger

High speed processing chip microsecond level probe/high-speed position comparison function, meeting the applications of 3C, lithium battery, and printing industries



High speed pulse counting/high-speed pulse output



4 high-speed pulse counting hardware channels,
5 channels of 200K high-speed pulse output.

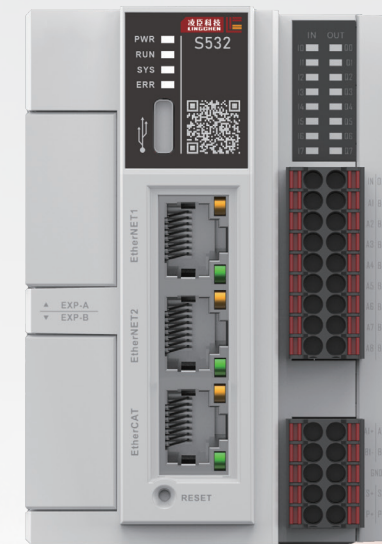
- 1 Counter preset function
- 2 Location comparison trigger function
- 3 Pulse width measurement function
- 4 Probe position locking function

5-way 200K high-speed pulse output

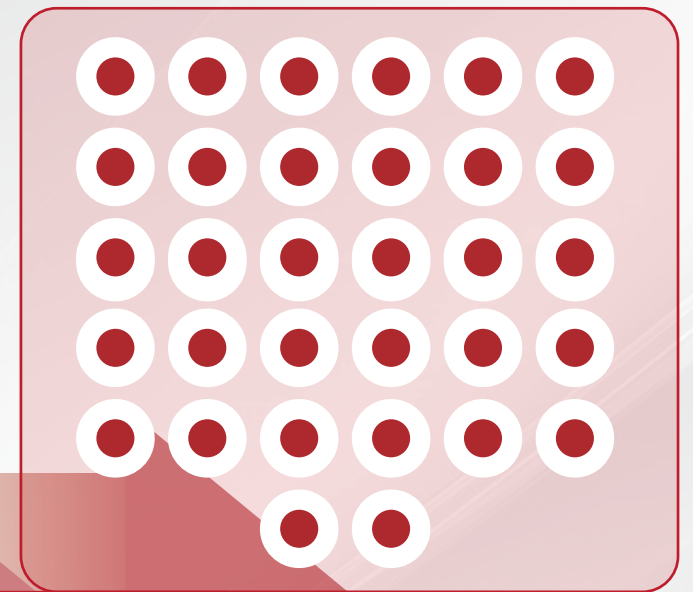
Support pulse axis conventional control function
modules: return to origin, absolute positioning, relative
positioning, jog, position reading, speed reading, etc

Motion Control Integration

Supports up to 32 axis EtherCAT
synchronous motion control point-to-point positioning control

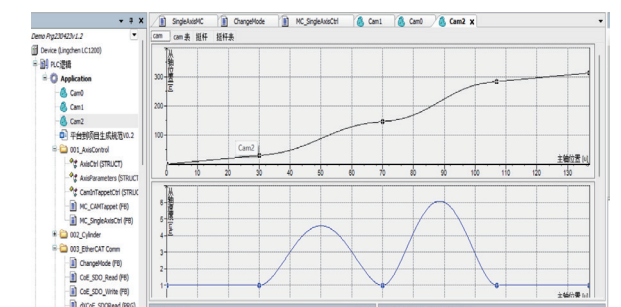
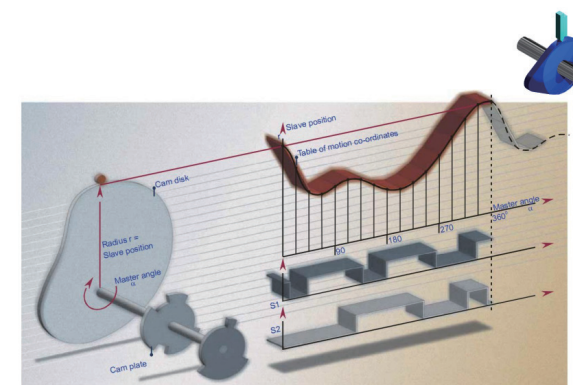


EtherCAT



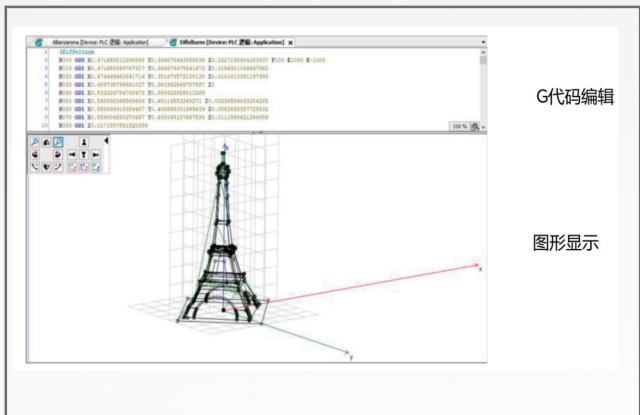
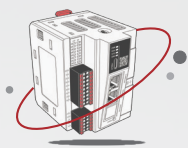
Synchronous control

Electronic gear/cam synchronous motion, supporting Poly5 5th curve, easy to achieve 4ms 32 axis electronic cam synchronization, acceleration and deceleration process
The action is smoother and more gentle, perfectly solving problems such as poor precision, easy wear, and high noise of mechanical camshafts.



Trajectory motion

6-axis straight line/3-axis circular arc/spline curve G-code interpolation, velocity foresight algorithm, corner preprocessing, M/H auxiliary switch, with a three-axis Cartesian coordinate system robot inside Longmen frame, Scara robot inverse kinematics model



G代码编辑

图形显示



(Speed Forward Algorithm, Corner Preprocessing)

Product Configuration

Product model			S305-0808TN	S508-0808TN	S516-0808TN	S532-0808TN
Input power			DC 24V ± 10%, 1A, supports short circuit/reverse connection protection			
Ontology I/O			8 inputs (source/drain), 8 outputs (drain)			
Data/program storage capacity			40M program capacity, 20M data capacity (512K Byte power down hold space)			
Instruction processing speed	Bit processing instruction		9.9ns			
	Word processing instruction		14.3ns			
	Four operations on integers(average)		16.2ns			
	RJ45 port	EtherNet	EtherNet * 2 (dual IP, independent network end)			
		EtherCAT	EtherCAT*1			
	Number of serial ports		RS485 * 2 (built-in with 2 channels)/The left expansion card can expand RS485 * 1/RS232 * 1			
EtherCAT Bus specifications	EtherCAT axis count		Not supported	8 bus axis (excluding pulse axis)	16 bus axis (excluding pulse axis)	32 bus axis (excluding pulse axis)
	EtherCAT Slave		Not supported	Supports up to 127 EtherCAT slaves		
	Typical values of communication cycle		Not supported	500us cycle 4-axis/4ms cycle 32 axis synchronization		
High speed IO	High speed input		Supports pulse input, up to 4 channels, (counting encoder axis)/8 channels 200K, supports AB phase, pulse+direction CW/CCW Single phase addition and subtraction counting/two-phase two input.			
	High speed output		Supports up to 5 channels of pulse output (4 pulse motion axes are recommended, with unified instructions with the bus axis)/8 channels of 200K, supporting AB phase, pulse+direction CW/CCW, Supports PWM pulse width modulation (4 channels).			
	Other functions		Position comparison trigger/position latch/pulse width measurement.			
Scalability	Expand IO module expansion card		The main body can expand up to 32 LD series IO modules			
			Support SD card download of applications			
Other interfaces			Host power supply/firmware debugging			
Engineering configuration software			LCCControlStudio (standard IEC 61131-3)			

Product ordering information

Coding	Product model	description	plug-in	certification
CPU: S-series bus PLC				
5400100063	S305-0808TN	The medium-sized series S305 programmable controller (independent of 2 IP segments) does not support EtherCAT bus axis, with 4 hardware counts and 5 hardware pulse outputs.	plug-in	CE
5400100065	S508-0808TN	Medium sized S508 series programmable controller (independent of 3 IP segments), supporting 8 EtherCAT bus axes, 4 hardware counters, and 5 hardware pulse outputs.	plug-in	CE
5400100067	S516-0808TN	Medium sized S508 series programmable controller (independent of 3 IP segments), supporting 16 EtherCAT bus axes, 4 hardware counters, and 5 hardware pulse outputs.	plug-in	CE
5400100069	S532-0808TN	Medium sized S508 series programmable controller (independent of 3 IP segments), supporting 32 EtherCAT bus axes, 4 hardware counters, and 5 hardware pulse outputs.	plug-in	CE
Local/remote expansion module types (LD series modules support local expansion of S series PLC)				
5300100004	LD1406	Lingchen LD1406 (PNP) Digital Input Module	plug-in	CE
5300100005	LD2406	Lingchen LD2406 (PNP) Digital Output Block	plug-in	CE
5300100025	LD1486	Lingchen LD1486 (NPN) IO Input Module	plug-in	CE
5300100026	LD2486	Lingchen LD2486 (NPN) IO Output Module	plug-in	CE
5300100143	LD1482	Lingchen LD1482 (NPN/PNP) 32 channel IO input module	plug-in	CE
5300100147	LD2482	Lingchen LD2482 (NPN) 32 channel IO output module	plug-in	CE
5300100006	LD3134	Lingchen LD3134 Voltage Input Module	plug-in	CE
5300100001	LD3138	Lingchen LD3138 voltage acquisition module	plug-in	CE
5300100080	LD3014	Lingchen LD3014 Analog Voltage Input Module	plug-in	CE
5300100007	LD3034	Lingchen LD3034 current acquisition block	plug-in	CE
5300100002	LD3038	Lingchen LD3038 current acquisition module	plug-in	CE
5300100022	LD4034	Lingchen LD4034 4-channel 4-20mA current output	plug-in	CE
5300100006	LD3134	Lingchen LD3134 Voltage Input Module	plug-in	CE
5300100001	LD3138	Lingchen LD3138 voltage acquisition module	plug-in	CE
5300100161	LD3172	Lingchen LD3172 2-channel thermistor module	plug-in	CE
5300100159	LD3174	Lingchen LD3174 4-channel thermistor module	plug-in	CE
5300100021	LD4134	Lingchen LD4134 4-channel+-10V voltage output module	plug-in	CE
5300100094	LD4144	Lingchen LD4144 Analog Voltage Output Module	plug-in	CE
5300100029	LD5002	Lingchen LD5002 2-channel pulse input block	plug-in	CE
5300100041	LD9000	Lingchen LD9000 power relay module	plug-in	CE
5300100051	LD3188	Lingchen LD3188 eight channel thermocouple module	plug-in	CE
5300100163	LD3184	Lingchen LD3184 Four channel Thermocouple Module	plug-in	CE
5300100286	LD1188	Lingchen LD1188 (NPN) digital 8-in 8-out module	plug-in	CE
5300100030	LD6001	Lingchen LD6001 422 serial port module	plug-in	CE
5300100111	LD1100	Lingchen LD1100 EtherCAT coupler	plug-in	CE
Remote expansion module type (LC series module)				
5300100194	LC1188	Lingchen LC1188 (NPN) digital 8-in 8-out module	plug-in	CE
5300100059	LC2406	Lingchen LC2406 (PNP) IO output module	plug-in	CE
5300100058	LC1406	Lingchen LC1406 (PNP) IO Input Module	plug-in	CE
5300100067	LC5002	Lingchen LC5002 2-channel pulse input module	plug-in	CE
5300100068	LC1486	Lingchen LC1486 (NPN) IO Input Module	plug-in	CE
5300100070	LC2486	Lingchen LC2486 (NPN) IO Output Module	plug-in	CE
5300100085	LC3014	Lingchen LC3014 Analog Voltage Input Module	plug-in	CE
5300100077	LC3034	Lingchen LC3034 current acquisition block	plug-in	CE
5300100083	LC4034	Lingchen LC4034 4-channel current output module	plug-in	CE
5300100008	LC3134	Lingchen LC3134 Voltage Input Module	plug-in	CE
5300100075	LC4134	Lingchen LC4134 Analog Voltage Output Module	plug-in	CE
5300100086	LC4144	Lingchen LC4144 Analog Voltage Output Module	plug-in	CE
5300100089	LC3174	Lingchen LC3174 4-channel thermoelectric module	plug-in	CE
5300100087	LC3184	Lingchen LC3184 Four channel Thermocouple Module	plug-in	CE
5300100081	LC3188	Lingchen LC3188 eight channel thermocouple module	plug-in	CE
5300100074	LC6001	Lingchen LC6001 422 serial port block	plug-in	CE
5300100084	LC9000	Lingchen LC9000 power relay block	plug-in	CE
5300100290	LC5012	Lingchen LC5012 2-channel pulse input module	plug-in	CE
5300100072	LC1100	Lingchen LC1100 EtherCAT coupler	plug-in	CE
List of LE10 expansion cards on the left side				
5021011010	LE10-232/485	LE10 series LE10-232/485, supports 1 channel RS485/RS232		
5021011009	LE10-TF/RTC	LE10 series LE10-TF/RTC, supports RTC clock		

LD series

EtherCAT Slave Module IO Module

Protocol coupler	
Model	Specification
LD1100	EtherCAT protocol coupler
LD1101	PROFINET protocol coupler

Digital input module	
型号	Specification
LD1188	8-channel digital input NPN/8-channel digital output NPN
LD1486	16 channel digital input NPN
LD1406	16 channel digital input PNP
LD1482	32 channel digital input NPN/PNP

Digital output module	
型号	Specification
LD2486	16 channel digital output NPN
LD2406	16 channel digital output PNP
LD2482	32 channel digital output NPN

Analog module	
型号	Specification
LD3134	4-channel voltage input module, ± 10V (16BIT)
LD3014	4-channel voltage input module, ± 10V or 0-10V (16BIT)
LD3138	8-channel voltage input module, ± 10V (16BIT)
LD3018	8-channel voltage input module, ± 10V or 0-10V (16BIT)
LD3034	4-channel current input module, 0-20mA (16BIT)
LD3038	8-channel current input module, 0-20mA (16BIT)
LD4144	4-channel voltage output module, 0-10V (16BIT)
LD4134	4-channel voltage output module, ± 10V (16BIT)
LD4034	4-channel current output module, 4-20mA (16BIT)

LD series

EtherCAT Slave Module IO Module

Pressure and temperature module	
Model	Specification
LD3162	2-channel pressure sensor input module (16BIT)
LC3172	2-channel thermistor module (16BIT) accuracy ± 0.2% PT100/PT1000
LD3174	4-channel thermistor module (16BIT) accuracy ± 0.2% PT100/PT1000
LD3184	4-channel thermocouple module (16BIT) accuracy ± 0.2% K/E/T/J
LD3188	8-channel thermocouple module (16BIT) accuracy ± 0.2% K/E/T/J

Counter communication module	
Model	Specification
LD5001	1-channel encoder input (5V)/position latch (24V)
LD5002	2-channel encoder input (5V)/position latch (5V)
LD5012	2-channel encoder input (24V)/position latch (24V)
LD6001	422/232/485 Free Protocol Module

power module	
Model	Specification
LD0100	Terminating resistor
LD9000	Power module