NIETZ
Innovation & Technology

Industrial Automation Trusted Provider

Programmable Logic Controller

Intelligent Control

Procuct Manuals



NIETZ Nietz Electric Co.,Ltd

Tel: +86 21 33634649 Skype: aliaosa5
E-mail: info@nietz.cn http://www.nietz.cn
WhatsApp: +86 13764513349 QQ: 744758892
Add: No.988, Fu lian Rd., min hang Industry, shanghai, china

sales & Service Address

ABOUT NIETZ

Nietz Electric Co., Ltd. is located in Shanghai, China. It is a high-tech enterprise focusing on the research and development, manufacturing and sales of PLC and industrial automation control. It has a modern factory building of 27,000m2 and is one of the most powerful global suppliers of industrial automation equipment.

Since its establishment, the company has always taken technological innovation as its core driving force and has been deeply involved in the field of industrial control. At present, it has formed a complete product system covering simple PLC, operation and control PLC, bus PLC and coupler, IO module and functional module. Among them , PLC products adopt modular design, integrate high-speed computing, multi-axis control, network communication and other functions, support Modbus, CANopen and other industrial protocols, and can accurately realize complex logic control and data interaction. With the advantages of stable performance and strong compatibility, the company's solutions are widely used in intelligent transformation of automated production lines, intelligent warehousing and logistics, energy and environmental protection equipment, as well as special equipment such as printing equipment and textile machinery. With the vision of "becoming a leader in industrial automation", the company continues to provide manufacturing customers with integrated industrial control solutions from hardware to software to promote the automation and digital upgrade of the industry.



CONTENTS

01 ZX300 series PLC

03 ZX300 Expansion Module

04 ZQ500/600 series PLC

07 QY20 series Coupler Module

09 QY20 series IO Module

12 QL series Module

14 EC Vertical Integrated IO Module

17 EtherCAT Junction Slave Module

ZX300 series PLC

The ZX300 series PLC is a small PLC system launched by Nietz in response to market demand. Designed to be compatible with the Mitsubishi FX3U series, it features the in-house developed ZX Works programming system (under development, with future support). It supports ladder diagram programming and can implement functions such as pulse commands. It is primarily used for general logic control and, in conjunction with our inverters and pulse servos, can implement logic control and simple motion control. Supporting Modbus RTU communication, it can connect to slave devices such as sensors and inverters via the Modbus bus protocol, enabling data exchange with human-machine interfaces (HMIs). ZX351 is a PLC controller specially designed for grinders. It supports precision grinding of milling cutters, round nose cutters, chamfer cutters and ball end mills. It realizes multi-axis coordinated interpolation for accurate grinding control, with built-in Modbus for easy system integration and data transmission.



Advantage

① Diversified function control

- The host supports up to 4 high-speed pulse outputs, 4 single-phase high-speed input counts, or 1 AB phase + 2 single-phase high-speed count inputs.

② Flexible expansion modules

- Self-developed programming environment ZxWorks, easy to use and convenient to program
- Compatible with Mitsubishi programming software, similar to most small PLC programming instructions
- Supports both X10 and E10 series expansion modules. Supports up to 12 X10 series expansion modulesand one E10 series expansion module (E10 series expansion modules are limited to the first module connected on the right).

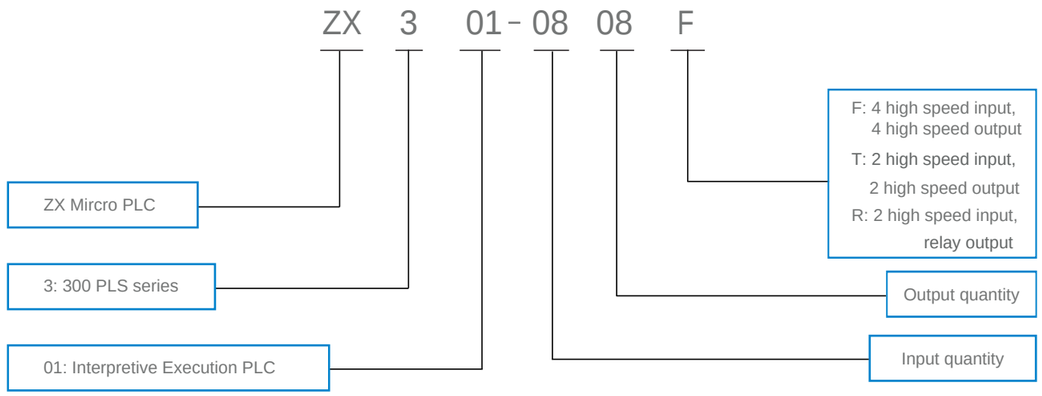
③ Rich instruction set

- 64K or 16000-step program storage unit and 4K power-off retention data to meet most logic control
- RS232 communication port: supports Modbus RTU master-slave communication;supports downloading and monitoring user programs
- RS485 communication port: support Modbus RTU master-slave communication USB communication port: support Type C to download monitoring program

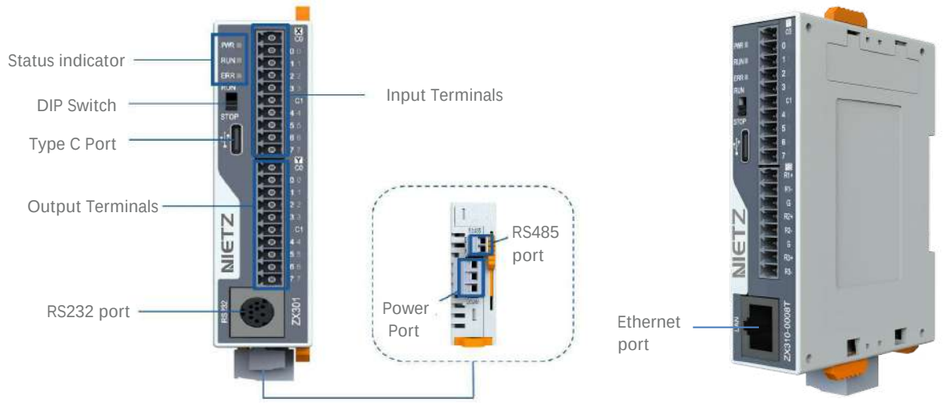
④ Convenient programming platform

- Features the proprietary programming environment "ZX Works," designed for ease of use and convenient programming (currently under development; future support planned).
- Compatible with Mitsubishi programming software, enabling seamless program migration; programming instructions are similar to those of most small-scale PLCs.

Naming Rules



Interface Layout



PLC Model

Specification	ZX301-0808F	ZX301-0808T	ZX301-0806R	ZX305-0808F	ZX351	ZX310-0008T
Input Power	DC24V ±10%, max 4A, typical 2.4A; supports short-circuit and reverse connection protection; no external UPS required					DC 24V±20%, max. 4A, supports reverse polarity protection
Data / Storage Capacity	128K (64,000 steps) program storage capacity + 4K data capacity with power-loss retention					
High-speed Counting	4-ch single-ended high-speed counting (100K), or 1-ch A/B phase plus 2-chl single-ended high-speed counting (100K)	2-channel single-ended high-speed counting (100K) or 1-channel A/B phase high-speed counting (100K)		3-channel single-ended high-speed counting (100K) or 2-channel A/B phase high-speed counting (100K)		——
Input and Output	Main unit: 8 inputs + 8 outputs (including high-speed input and output)		Main unit: 8 inputs + 6 relay outputs (including high-speed input)	Main unit: 8 inputs + 8 outputs (including high-speed input and output)		Main unit: 8 outputs
Pulse Output	4 high-speed outputs (100K)	2-channel high-speed output (100K)	Relay output	5-channel high-speed output (100K)	5 high-speed outputs (the first 2 at 200K, the remaining 3 at 100K)	Transistor output
Program Execution Mode	Cyclic scanning, parsing and execution					
Power-off Retention	1 s					
Communication	1 × RS232; 1 × RS485					3 × RS485
Communication Port	8-pin circular port					RJ45 port
RUN / STOP	Supports PLC RUN/STOP control					
Expansion Modules	E10 series (connects to a host unit; maximum of 1 unit); X10 series (communicates with a host unit/PLC; maximum of 12 units)			E10/E15 series (connects to a host unit; maximum of 1 unit); X10 series (communicates with a host unit; maximum of 12 units)		E10/E20 series (connects to a host unit; maximum of 1 unit); X10 series (communicates with a host unit; maximum of 12 units)
Programming Software	ZxWorks, Mitsubishi GX Works2					
Modbus Communication	Supports Modbus RTU					Supports Modbus TCP/RTU
USB Communication	Type-C interface; supports program download, monitoring, debugging and firmware update					

ZX300 Expasion Module

These expansion modules are specially designed for the 300 Series PLC. The product range covers digital I/O modules, analog modules, thermocouple and RTD temperature acquisition modules, alongside USB and serial communication expansion units.The digital modules support transistor and relay outputs, with high-speed pulse counting and pulse output capabilities for motion control. Analog modules collect and output standard industrial voltage and current signals with high precision. Temperature modules directly read signals from thermocouples and thermal resistors, eliminating extra signal conversion devices.



Direct-to-Host Connection Type

Model	E10-0808T	E10-0808R	E15-USB	E15-0808U	E15-2SCOM	E20-0808T
Interface	8DI,8DO NPN sinking	8DI, relay output	USB flash program download	8DI,8DO NPN transistor, USB download	2-channel serial expansion	8DI+8DO high-speed transistor, 200kHz counter & pulse
Specification	Optocoupler isolation 24V DC ±20%Max 0.3A/point	Opto/relay isolation 24V DC ±20%Max 5A/pointAC250V /DC30V 5A	USB2.0, FAT32	Optocoupler isolation 24V DC ±20%Max 0.3A/pointUSB2.0 FAT/FAT32	1×RS485, 1×RS485/RS2 32 configurable	Opto/transistor isolation 24V DC ±20%Max 0.3A/point

Analog type

Model	X10-0402A	X10-2A2P	X10-4AD	X10-8AD	X10-4DA	X10-8DA
Interface	4AI, 2AO	2AI, 2 RTD inputs	4AI	8AI	4AO	8AO
Specification	Input:0~10V/ 0~20mA,12bit Output:0~10 V/ 0~20mA,16bit	Input:0~10V/0~20mA,12bit RTD:Pt100/Pt500/Pt100 0/Cu100/NTC	0~10V/0~20 mA,16bit	0~10V/0~20 mA,16bit	24VDC(±20%) Signal:±10V, 0~20mA	24V DC(±20%) Signal:±10V,0~ 20mA

Digital type

Model	X10-0808T	X10-0008N	X10-0008P	X10-0800T	X10-1600T	X10-0808R	X10-0008R	X10-0016N	X10-0016P
Interface	8DI,8DO NPN sinking	8DO NPN sinking	8DO PNP sinking	8DI, NPN/PNP compatible	16DI, NPN/PNP compatible	8DI,8DO relay output	8DO relay output	16DO NPN	16DO PNP
Specification	Optocoupler isolation 24V DC ±20%Max 0.3A/point	Opto/relay isolation 24V DC ±20%Max 0.3A/point	Opto/relay isolation 24V DC ±20%Max 0.3A/point	Opto/relay isolation 24VDC ±20%Max 0.3A/point	Opto/relay isolation 24V DC ±20%Max 0.3A/point	Opto/relay isolation 24V DC ±20%Max 5A/point	Opto/relay isolation 24V DC ±20%Max 5A/point	24V DC ±20%30mA/ chan nel, max 500mA	24V DC ±20%30mA/ chan nel, max 500mA

TC and RTD types

Model	X10-4TC	X10-8TC	X10-4PT
Interface	4-channel thermocouple input	8-channel thermocouple input	4-channel 3-wire RTD input
Specification	TC types: B,E,N,J,K,R,S,T	TC types: B,E,N,J,K,R,S,T	RTD types: Pt100/Pt500/Pt1000/Cu100/KTY84/NTC5K/NTC10K

ZQ500/600 series PLC

ZQ500/600 series is a high-performance, mid-range PLC from NIETZ Technology. Designed and developed in full compliance with PLC open specifications and IEC 61131-3, it supports programming languages such as ST, LD, SFC, and CFC. It boasts powerful CPU performance, stable and reliable software and hardware system design, extensive expansion capabilities, a compact size, and modularity. It is primarily used in motion control scenarios and complex production line networking, and is particularly well-suited for multi-channel servo control and multi-bus protocol integration.



Advantage

① Powerful software and hardware configuration

- Dual-core processor, 1.4GHz main frequency, nanosecond instruction processing speed
- 128M Byte program capacity, 128M Byte data capacity (1M Byte supports power-off retention variables and 64K M device memory), data preservation during power outages without the need for an external UPS module
- The main unit can be expanded to 32 QY20 series IO modules, supporting DI, DO, AD, DA, PT, TC, PO, HC, and other modules

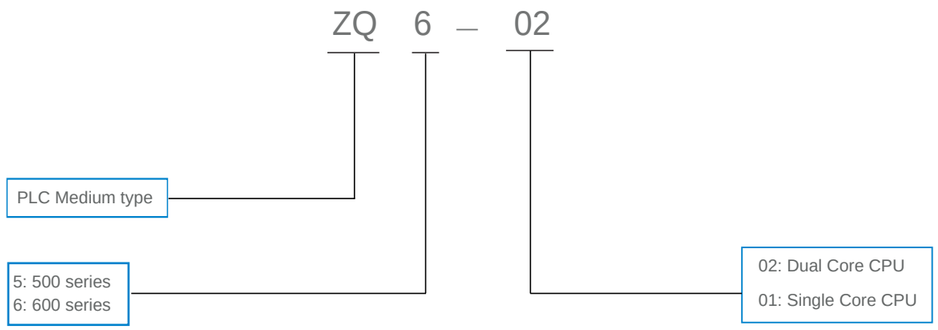
② Flexible and comprehensive performance

- 1ms cycle, 4-axis synchronous control, supports up to 64 axes.
- The entire series supports EtherCAT linear, star, and ring network topologies.Splitters can be integrated via expansion modules.

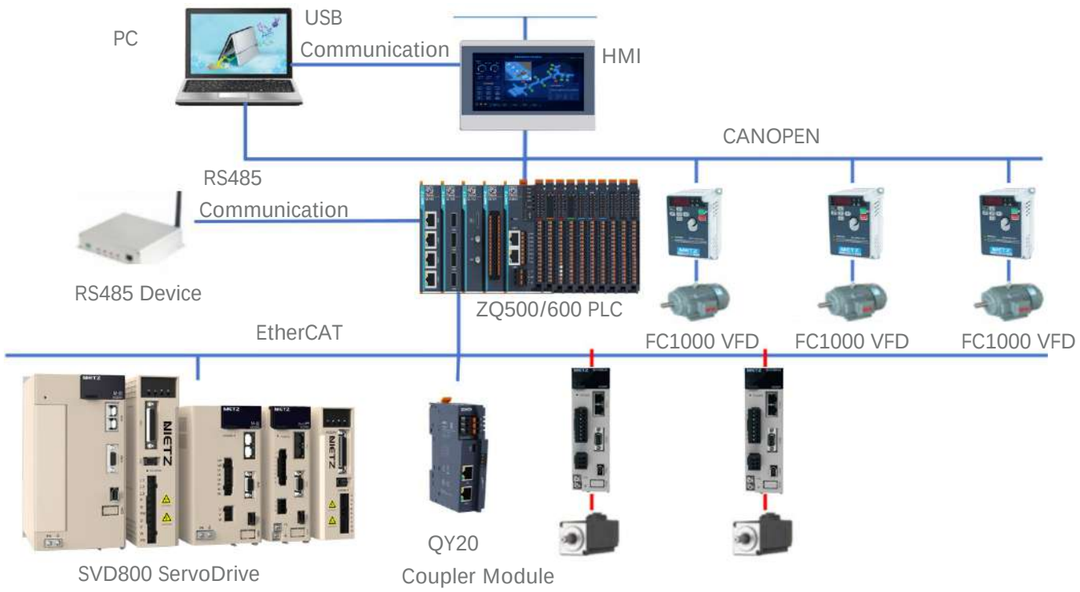
③ Rich communication interfaces

- Supports two Ethernet ports, LAN1 of which can be configured as an EtherCAT master or PROFINET master /slave. When used as EtherCAT, it supports up to 64-axis control and can connect 256 EtherCAT slaves. LAN1 and LAN2 each support 63 Modbus TCP slaves and 16 OPC UA sessions (clients).
- Supports 2-way RS485 communication (both master and slave modes), 1-way CAN communication, and supports 127 slaves when
- Using ladder diagrams, function blocks, and ST programming languages compliant with the IEC61131-3/ PLCopen standard effectively reduces project development time and improves project development efficiency.

Naming Rules



Multi-fieldbus Expansion System for ZQ500/600 Series PLC

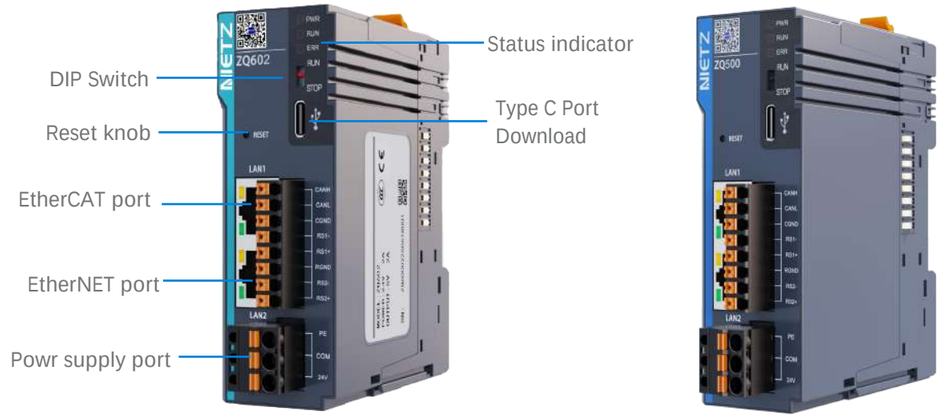


The ZQ500/600 Series PLC supports multiple fieldbuses, enabling comprehensive expansion connectivity. Its conventional architecture diagram is shown below



Use ladder diagrams, function blocks and ST language that comply with IEC61131-3/PLC open standards to effectively reduce project development time and improve project development efficiency.

Interface Layout



PLC Model

Model		ZQ501	ZQ502	ZQ601	ZQ602
Input Power		DC24V±10%, maximum 4A, typical 2.4A, supports short circuit/reverse connection protection, no external UPS required			
Memory		4G			
Data/storage capacity		128M program capacity, 128M data capacity (1M power-off retention space + 64K M device power-off retention)			
Communication specifications	EtehrCAT	1 channel, support expansion			
	Modbus RTU	2 channels			
	CAN communication	The main unit has 1 CAN channel (maximum 8 slaves), supporting CANopen and CAN free protocols			
	USB communication	Support			
EtherCAT Communication	EtherCAT Axes	4+4	8+8	16+16	32+32
	EtherCAT slaves	Support up to 256			
	Communication cycle	Minimum 1ms	Minimum 1ms	2ms 4-axis synchronization	1ms 4-axis synchronization
ProfiNET Communication		Support ProfiNET master-slave			
Scalability	Right expansino	The main unit supports 32 QY20 series blade modules			
	Left expansion	EtherCAT redundancy, EtherCAT splitter, 4-way routing, high-speed pulse, 4G/5G, remote debugging and monitoring, MQTT cloud, EtherCAT slave and other functions (under development)			
RUN/STOP		Can realize PLC stop/run			
RESET	Factory Reset	Clear the user program and restore the initial IP address			
Programming language		IEC61131-3			

QY20 Coupler Module

The QY20 series plug-in IO modules consist of a coupler module, an IO function module, a relay power supply module, and a cover. The IO function modules are further divided into various types and numbers of function modules, including digital, analog, pulse output, encoder, and temperature. Customers can match them according to on-site requirements. They support mainstream communication protocols such as EtherCAT, PROFINET, CC-Link IE TSN, and are widely applicable to various bus applications.



■ Advantage

① Thin and light insert

- The plug-in modular design allows the coupler to be as thin as 24mm and a single module to be as thin as 12mm.

② High speed response

- Transmission speeds can reach 100Mbps (full-duplex), with a communication cycle as short as 500us.High-precision distributed clock, precise synchronization (jitter 1 us) high-speed backplane bus ensures rapid response.

③ Various protections

- The power input (coupler, relay power module, etc.) has reverse polarity protection, and the digital output (transistor type) and analog output (voltage, current) have short-circuit protection.

④ Easy to install

- Snap-on rail design allows for easy assembly and disassembly, simplifying maintenance.
- Screwless terminal blocks reduce wiring time and improve installation efficiency. Each coupler supports up to 32 IO modules.
- The three-stage design and removable terminals allow for quick replacement without reinstalling cables, simplifying future maintenance.
- One-click firmware upgrades for the coupler and modules are available via USB-C.

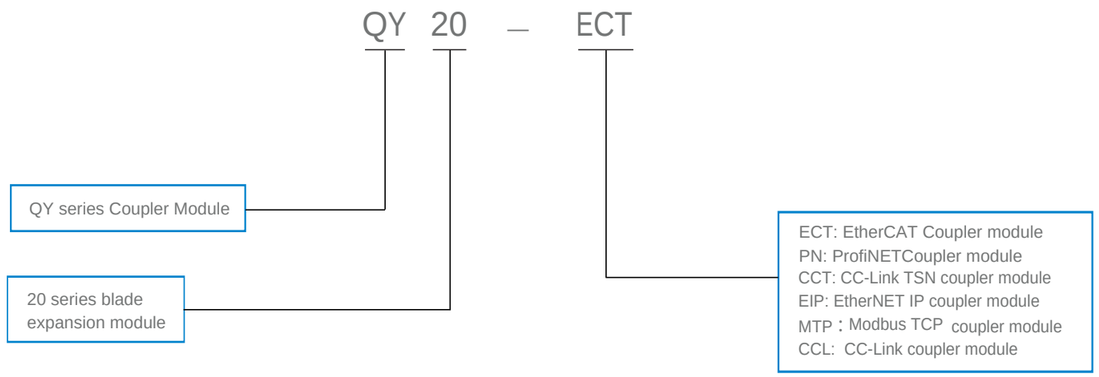
⑤ Mainstream protocols

- Supports a variety of mainstream bus communication protocols, easily connecting to fieldbuses such as EtherCAT, PROFINET, CC-Link IE TSN,and EtherNET/IP.

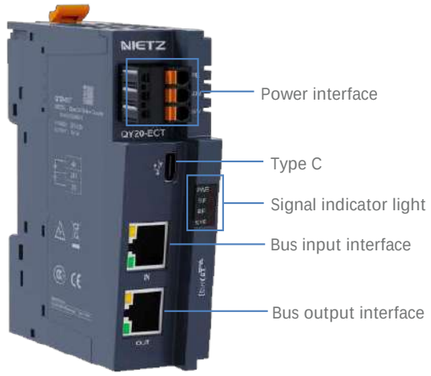
⑥ Rich types

- IO expansion modules with various types and points, including digital, analog, pulse output, encoder, and temperature

■ Naming Rules



■ Interface Layout





■ Expansion Module Code

Model	QY20-ECT	QY20-PN	QY20-CCT	QY20-EIP	QY20-MTP	QY20-CCL
Protocol	EtherCAT	ProfiNET	CC-Link IE TSN	EtherNET IP	Modbus TCP	CC-Link
Supported IO number	32					
Input Power	24VDC(±20%)0.5A					
Output	5V 2A					
Works Temp.	-20℃~55℃					
Protective class	IP20					

QY20 IO Module

The QY20 series IO expansion modules adopt a plug-in structure and realize IO expansion of protocols such as EtherCAT, PROFINET, EtherNET/IP, CC-Link IE TSN through a high-speed backplane bus. Or they can be directly extended to the right side of the ZQ600 series PLC to realize PLC expansion. They include various types of modules such as digital,analog, pulse output, encoder, and temperature.



Advantage

① Rich types

- The expansion IO modules offer a wide range of functions, including digital, analog, pulse output, encoder, and temperature control. Eachmodule can be easily identified by its color, allowing for flexible combination and expansion, allowing for diverse applications.
- Supports error diagnosis, with error indicators on each module. Each module also supports fault alarm function, making detection and maintenance simple and convenient.
- Snap-on guide rail structure, easy to disassemble and assemble, easy to maintain

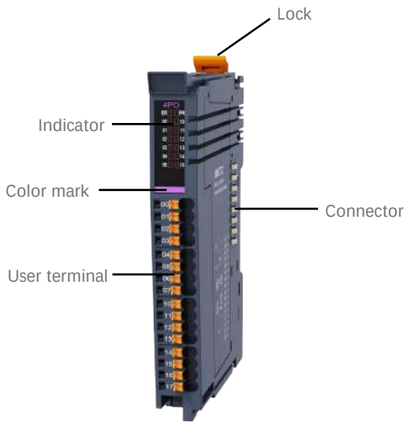
② Easy to install

- Screwless terminal blocks reduce wiring time and improveinstallation efficiency. Each coupler supports up to 32 IO modules.
- The three-stage structural design and removable terminals allow for quick replacement without reinstalling cables, making future maintenance easier.
- One-click upgrade of coupler and module firmware via Type-C connection

③ High speed response

- High-speed backplane bus, fast response

Interface Layout



Digital output modules

Model	QY20-0016P	QY20-0016N
Interface	16 ways PNP digital output	16 ways NPN digital output
Input power	24V DC (±20%) 30mA	
Output characteristics	Single channel 500mA, resistive load, inductive load, lamp load	
Operating temperature	-10℃ ~55℃	
Protection level	IP20	

Digital input modules

Model	QY20-1600P	QY20-1600N
Interface	16 ways PNP digital input	16 ways NPN digital input
Input power	24V DC (±20%) 30mA	
Output characteristics	24V 500mAInput ON logic: 15V~26VInput OFF logic: 0V~4V	
Operating temperature	-10℃~55℃	
Protection level	IP20	

Analog input and output modules

Model	QY20-4AD	QY20-4DA
Interface	4 ways analog input	4 ways analog output
Input power	24V DC (±20%) 30mA	
Output characteristics	-10V~10V,0~10V,-5~5V,0~5V,1~5V,0~20mA,4~20mA	
Measurement accuracy	25℃:Full scale × ±0.3% (-10V~10V fullscale) -20~55℃ : full scale × ±0.5% (-10V~10Vfull scale)	
Operating temperature	-10℃ ~55℃	
Protection level	IP20	

Temperature detect module

Model	QY20-1600P	QY20-1600N
Interface	16 ways PNP digital input	16 ways NPN digital input
Input power	24V DC (±20%) 30mA	
Output characteristics	24V 500mA Input ON logic: 15V~26V Input OFF logic: 0V~4V	
Operating temperature	-10 ℃~55 ℃	
Protection level	IP20	

■ Digital input and output module

Model	QY20-0808P	QY20-0808N
Interface	8-channel PNP digital input8channel PNPdigital output	8-channel NPN digital input8-channel NPNdigital output
Input power	24V DC (±20%) 30mA	
Input characteristics	24V 500mAInput ON logic: 15V~26V Input OFF logic: 0V~4V	
Output characteristics	Single channel 500mA, resistive load, inductive load, lamp load	
Operating temperature	-10℃~55℃	
Protection level	IP20	

■ Multi-way analog input module

Model	QY20-8AI	QY20-8AIL-L	QY20-8AV	QY20-8AV-L
Interface	8-channel current input(16bit)	8-channel current input(12bit)	8-channel voltage input(16bit)	8-channel voltage input(12bit)
Input power	24V DC (±20%)30mA			
Input characteristics	0~20mA,4~20mA		-10~10V,0~10V,-5~5 V, 0~5V,1~5V	0V~10V,0~5V,1~5V
Operating temperature	-10℃~55℃			
Protection level	IP20			

■ Other function module

Model	QY20-2HC	QY20-4PO	QY20-PS	QY20-2RS485
Interface	2 ways encoder module	4 ways pulse output module	Power module	2-channel RS485 communication module
Input power	24V DC (±20%) 30mA			
Input characteristics	2-way 5V differential or 24V single-endedinput, each supporting 2-way probe or DI(used when 5V differential), 1-waycomparison output or DO	4 channels of pulse output supports positioning & velocitymotion modes	24VDC(±20%) 500mA,5V2A	VID A, B: Differential input voltage:-12 to 12 V VOC A, B: Pin voltage:-7 to 12 V
Operating temperature	-10℃ ~55℃			
Protection level	IP20			

QL series Module

The QL series modules are modular expansion units specially designed for 500/600 PLC equipment.They are available in two forms: left expansion modules and standalone modules.The product lineup includes digital I/O, switch, high-speed pulse output, and EtherCAT splitter modules, which enrich the communication and motion control capabilities of the main control device.



■ Advantage

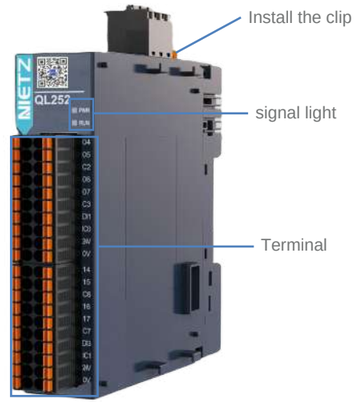
① Flexible and Diverse Form Factors

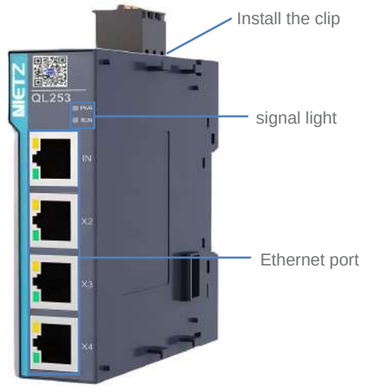
It adopts two hardware architectures: on-board left expansion and independent external installation. It supports multiple expansion modules including digital I/O, switch, high-speed pulse output and EtherCAT branch. It can be plugged into the PLC main unit or installed as a separate external unit, adapting to compact cabinet layout and on-site distributed deployment for greater freedom in model selection and configuration.

② Highly Integrated Functions

It delivers one-stop support for pulse-based motion output and diverse industrial network applications. Integrated with built-in PWM pulse control, EtherCAT bus branching as well as routing capabilities, it eliminates the requirement for numerous external third-party accessories. This greatly cuts hardware procurement and wiring workload, streamlines overall system deployment, and helps you build a more concise, compact and reliable automation system

■ Interface Layout





■ Pulse Output Module

Model	QL152	QL252
Interface Description	Left expansion pulse output interface	Independent pulse output interface
Input Power Supply	24V DC (20.4VDC~28.8VDC) (-15%~+20%)	
Functional Features	8-channel high-speed 200KHz pulse output, expandable stepper / pulse servo axes, supports CiA402 protocol	
Operating Temperature	-10℃~55℃	
Protection Class	IP20	

■ EtherCAT Junction Slave Module

Model	QL153	QL253
Interface Description	Left expansion EtherCAT bus branch interface	Independent EtherCAT bus branch interface
Input Power Supply	24V DC (20.4VDC~28.8VDC) (-15%~+20%)	
Functional Features	Supports 4-channel EtherCAT bus branching for bus topology construction; maximum 4 modules supported	1-in 3-out EtherCAT bus branching for bus topology construction
OperatingTemperature	-10℃~55℃	
Protection Class	IP20	

■ Switch Module

Model	QL154
Interface Description	Switch expansion interface
Input Power Supply	24V DC (20.4VDC~28.8VDC) (-15%~+20%)
Functional Features	4-port switch for PLC left expansion, realizing LAN data exchange for PLC
Operating Temperature	-10℃~55℃
Protection Class	IP20

EC Vertical Integrated IO Module

The EC series vertical integrated I/O modules feature an exquisite compact vertical structure to improve control cabinet space utilization. Built on the high speed EtherCAT bus, they deliver real-time and reliable data transmission. With a comprehensive range of specifications and no external coupler required, the modules offer excellent cost-performance and support customized selection, making them flexibly applicable to various automation equipment and system integration projects.



■ Advantage

① Compact Vertical Design

- Featuring an innovative vertical structure, each unit is only 25 mm in width and 77 mm in height. It enables high-density deployment within limited cabinet space to greatly improve space utilization, making it ideal for industrial equipment and system integration projects with strict installation dimension requirements.

② High-Speed Communication for Real-Time Data Transmission

- Adopting the standard EtherCAT bus protocol, it delivers outstanding communication performance. The minimum communication cycle reaches 250 μs, and a 250 μs filter function is equipped to ensure stable and real-time data transmission.

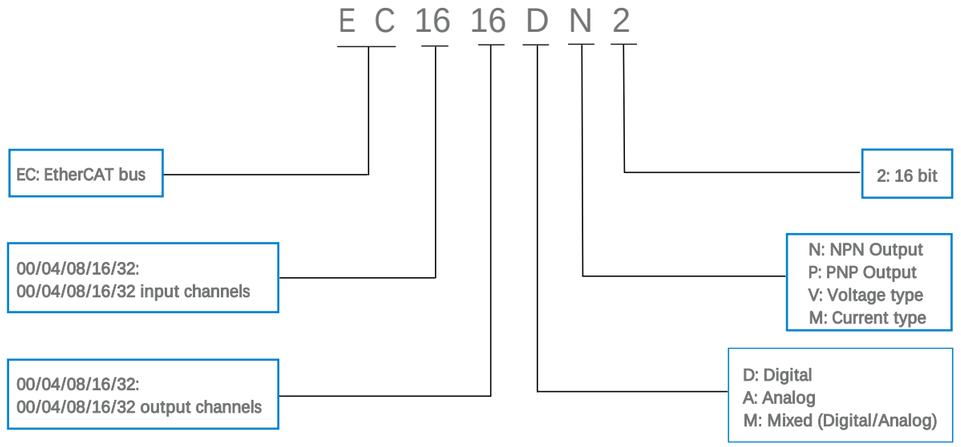
③ Cost-Effective to Meet Diverse Requirements

- It significantly reduces procurement costs while maintaining digital-only I/O modules and analog-only I/O modules with no external coupler required.

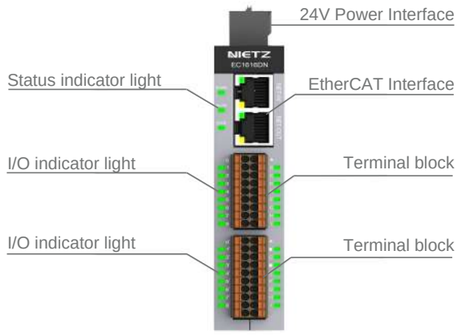
④ Full Product Range

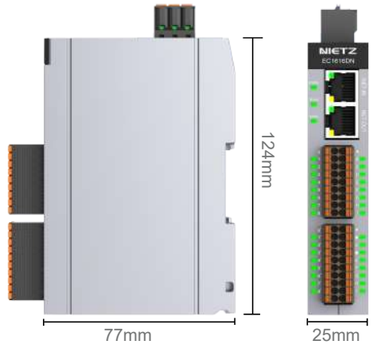
- The product lineup currently consists of digital-only I/O modules and analog-only I/O modules, eliminating the need for an external coupler. Users can select corresponding modules according to their actual demands.

■ Naming Rules



Interface Layout





General Sprcifications

Item	Function Definition
Power Specification	24VDC (20.4VDC ~ 28.8VDC) -15%, +20%
Maximum Communication Speed	100MB/s
Bus Interface	2*RJ45
Transmission Distance	100M
Data Transmission Medium	Ethernet/EtherCAT, CAT5 Cable
Operating Temperature	-20°C ~ +60°C
Storage Temperature	-25°C ~ +75°C
Relative Humidity	95%, Non-condensing
Protection Rating	IP20

Digtal Input Parameters

Item	Function Definition
PNP/NPN Selection	Manual Selection
Input Connection Type	Spring Terminal
Input Type	Sink and Source Compatible
Input Voltage Rating	24VDC (Max. 30V)
Input Current	4 ~ 20mA
ON Voltage	7V ~ 30V
OFF Voltage	-3V ~ 3V
Input Impedance	4.30%
Isolation Type	Optocoupler Isolation, 3000V
Input Status Indication	Indicator lights up when input is activated
Minimum Switching Frequency	0.25ms
Filter Time	Default: 3ms, Adjustable from 0-100ms (Unit: ms)

Digtal output Parameters

Item	Function Definition
Output Connection Type	Spring Terminal
Output Type	NPN or PNP
Output Voltage Rating	24VDC (-15% ~ 20%)
Maximum Leakage Current when OFF	<0.5mA
Resistive Load	0.5A/Point; 2A/Common Terminal
Inductive Load	12W/24VDC (Total)
Lamp Load	2W/24VDC (Total)
Isolation Type	Optocoupler Isolation, 3000V
Output Status Indication	Optocoupler Driver, Output Indicator ON
Short-circuit Protection for Output	Available

Analog Input Parameters

Item	Function Definition
Input Connection Type	Spring Terminal
Input Type	Voltage: -10V~10V, 0~10V | Current: 4~20mA, 0~20mA, 0~24mA
Resolution	16bit
Sampling Rate	≥10K sps
Input Impedance	100Ω
Isolation Withstand Voltage	500V
Accuracy	±0.1%
Minimum Frequency Switch	1ms

Analog Output Parameters

Item	Function Definition
Input Connection Type	Spring Terminal
Output Type	Voltage: -10V~10V, 0~10V | Current: 4~20mA, 0~20mA, 0~24mA
Resolution	16bit
Sampling Rate	≥10K sps
Input Impedance	>500Ω
Isolation Withstand Voltage	500V
Accuracy	±0.5%

EC Vertical Integrated IO Module

Model	Description
EC1616DN	EtherCAT, Vertical, 16 Inputs, 16 Outputs, Digital, NPN
EC1616DP	EtherCAT, Vertical, 16 Inputs, 16 Outputs, Digital, PNP
EC3200D	EtherCAT, Vertical, 32 Inputs, 0 Output, Digital, NPN/PNP Selectable
EC0032DN	EtherCAT, Vertical, 0 Input, 32 Outputs, Digital, NPN
EC0808AV2	EtherCAT, Vertical, Analog 8 In 8 Out, Voltage Type, -10V~10V
EC0808AM2	EtherCAT, Vertical, Analog 8 In 8 Out, 4-Ch Voltage, 4-Ch Current Type
EC0404AC2	EtherCAT, Vertical, Analog 4 In 4 Out, Voltage & Current Type
EC0800AM2	EtherCAT, Vertical, Analog 8 In, Voltage & Current Type

EtherCAT Junction Slave Module—ECAT-0105S



This ECAT-0105S EtherCAT Junction Slave Module is engineered for industrial applications, delivering reliable and anti?interference network performance. It supports flexible mounting methods to adapt to diverse cabinet layouts, adopts a multi-branch port design to simplify on-site wiring and break the restrictions of traditional daisy-chain topology. Featuring straightforward connection and deployment, it allows fast EtherCAT network expansion with minimal configuration effort for your automation system.

Advantage

① Stable and Reliable

- The module adapts to everyday industrial environments, provides stable connectionswithout dropoutsand offers strong interference resistance.The maximum distance between stations can reach 100 meters.Each port features 4kV contact electrostatic discharge (ESD) protection.

② Multiple Installation Methods

- Supports DIN rail and mounting-hole installation.

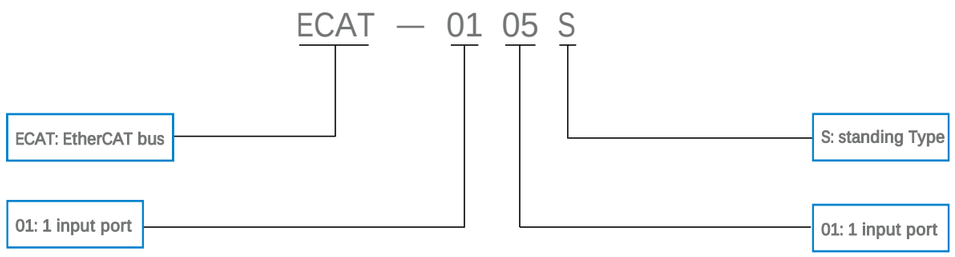
③ Simple Wiring

- The module has one IN input Ethernet port and five OUT output Ether net ports, allowing connection to five modules.

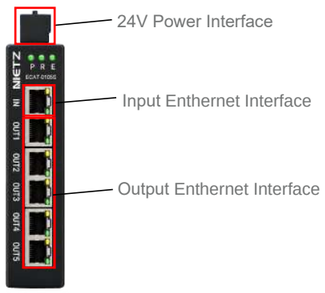
④ Easy to Use

- Just connect +24V and -0V powerconnect the controller Ethernet port to the input port, and connect the devices to the output ports to expand the module.

Naming Rules



Interface Layout



Junction Device Parameters

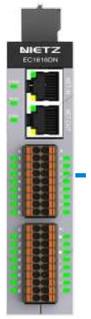
Item	Specification
Wire Gauge	24AWG / 22AWG / 20AWG
Rated Current	2A / 3A / 4A
Supply Voltage	DC 22V ~ 26V
Operating Ambient Temperature	-20 ~ +60℃
Storage Ambient Temperature	-25 ~ 75℃
Operating Ambient Humidity	25% ~ 85% RH
Storage Ambient Humidity	25% ~ 85% RH
Overall Dimension	1 Input 5 Output, 29mm72mm130mm

EtherCAT Automation System



ZQ500/600PLC

IN



OUT



OUT



EC series IO

SVD800 series servo Driver

OUT

FC1000 series Inverter

