



# NA300 / NA400 PLC



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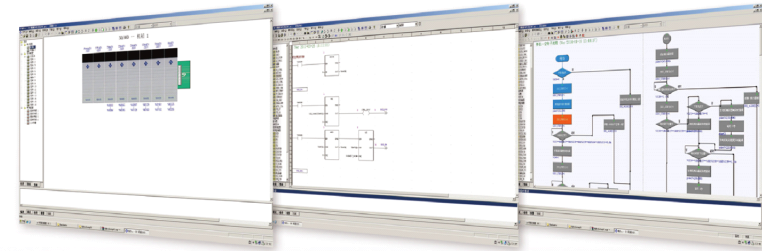
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## NAPro Programming Software

Throughout the time of entire project, we provide all the tools that are capable to develop, monitoring, maintain, and inspect the error of the application. We also provide lifelong upgrade for free.



### Programming

In order to develop the controlling application software, we provide IEC61131-3 as a completed programming language; under the custom function block, users can use the code that has been developed and debugged at same place for multiple times.



### Configuration

Intuitive tools will assist to control the configurations easily, and even can modify and enhance the system according to what you need; The single software package will approve all NA-PLC (Including NA200, NA300, and NA400) controller product.



### Debugging

A complete set of online development tools can help you to debug, and solve the problems very quickly; the data monitor program will provide a monitoring window when the application is running.



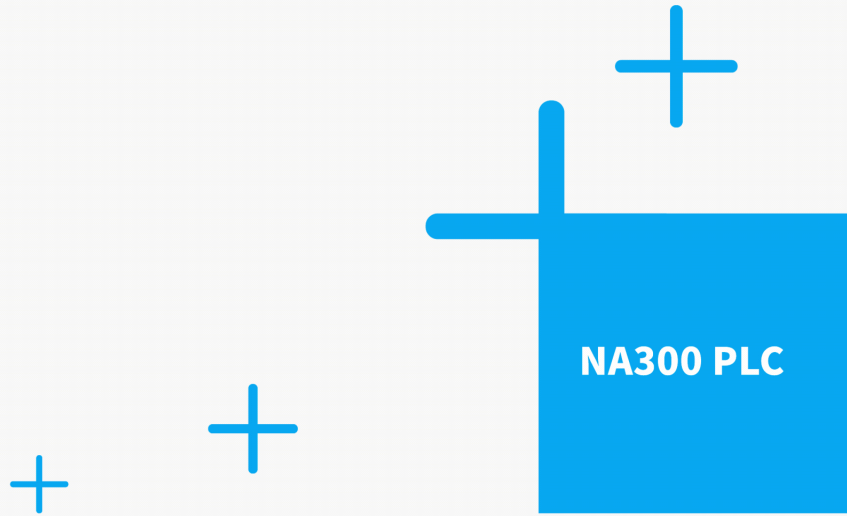
### Simulation

The software contains simulator that will run PLC simulator offline. This will make I/O enforcement function as in simulation mode available.

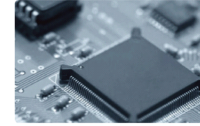


### Maintenance

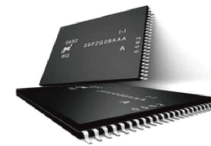
Diagnostic tools will predict problems that will possibly happened in the system.



## High Performance



- Adopt embedded low-power consumption and high performance 32-bit processor, frequency: 400MHz
- High speed communication and executive ability
- New structure and electrical design, strong anti-interference performance of EMC(Electro Magnetic Compatibility)
- Strong environmental adaptability: -25°C-65°C



- Storage space of program:32M
- Data: 32M,support 32K user-defined variables

## High Precision and High Resolution

- Up to 1ms hardware timestamp event resolution
- PPM(pulse per minute)hardware synchronization interface
- NTP Network Synchronization Function
- Large capacity SOE event recording buffer

## Innovative Technology

PWR	R	A	F
1 0.100V	5 0.100V		
2 4.00mA	6 4.00mA		
3 13.78mA	7 13.78mA		
4 -4.741V	8 -4.741V		

- CPU module has OLED display which can indicate more substantial operation and fault information,AI/AO modules can indicate signal output value through OLED display which is convenient for diagnosis.

## Dual Ethernet Interfaces



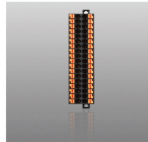
- Dual Ethernet interfaces with independent IP address which can achieve Network redundancy,support standard MODBUS TCP protocol and OPC protocol.

### RS485 Interface



Two RS485 interfaces with terminal connection mode, more convenient for on-site wiring and commissioning.

### Humanized Design , Convenient for terminal disassembly



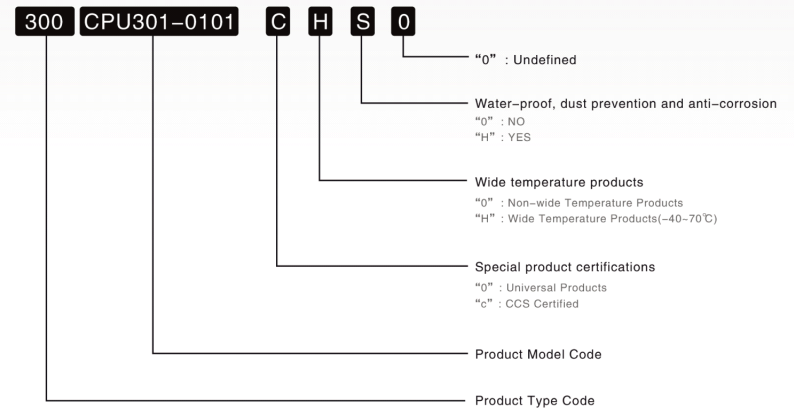
Adopt new spring press connection terminal, wiring is convenient and fast. Wiring terminal fixed mode has two options: release lever or screw.

### Product Structure Diagram



The product is backplane mounted, Modular structure design, all modules support live hot swapping.

### Description of the order number



### Backplane Selection

Model No.	Length and width ( mm )	Number of modules
BKM301-0401	164x110	4
BKM301-0801	292x110	8
BKM301-1201	420x110	12
BKM301-1501	511x110	15



## Connecting Terminal

Model No.	Description
CNE301-3601	36-core Terminal—Release lever
CNE301-3602	36-core Terminal—Fixed by screw



Fixed by screw



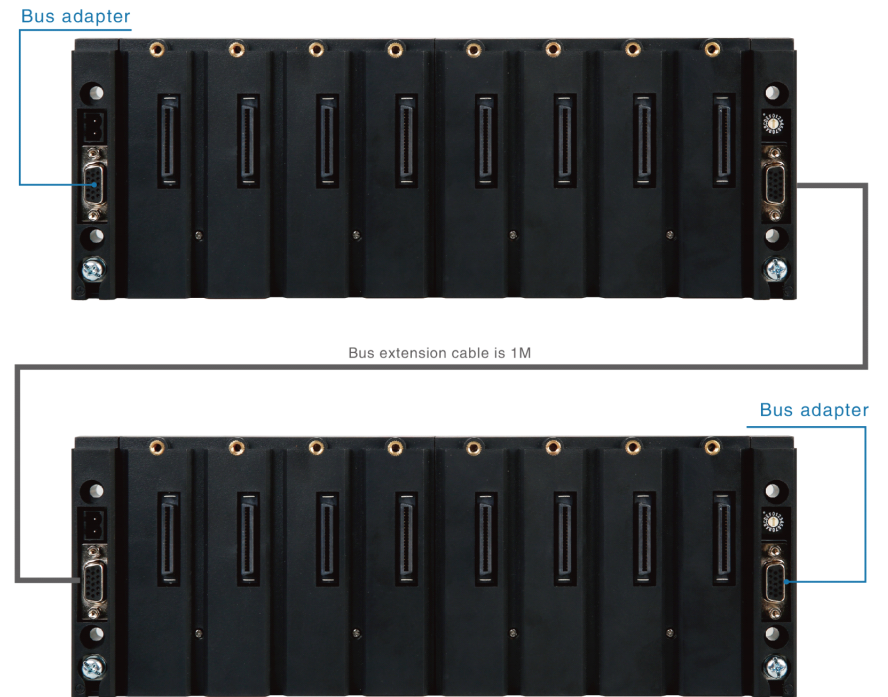
Release level fixed

## Bus Extension Cable and Adapter

Model No.	Description
CNL301-0101	1M
CNL301-0201	2M
CNL301-0301	3M
BUS301-0101	Bus adapter

### Bus extension mode and bus adapter installation requirements

Bus adapter: Each CPU control system use two bus adapters, must be installed at the head and end of backplane.

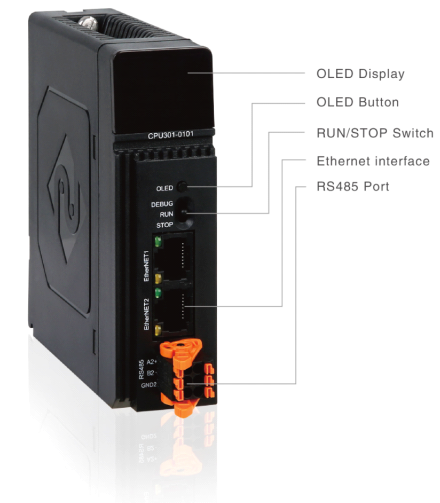


## Power Module



Module Type	PWM301-0401	PWM301-0404	PWM301-1001
Input Voltage	24VDC (±10%)	24VDC (±10%)	24VDC (±10%)
Rated Power	40W	40W	100W
Output Voltage	+5V	+5V	+5V
Redundancy	NO	YES	YES
Protection	Short circuit protection and overvoltage protection	Short circuit protection and overvoltage protection	Short circuit protection and overvoltage protection
Isolation	YES	YES	YES
Self-diagnosis	NO	NO	NO
Connection Mode	Terminal	Terminal	Terminal
Status indication	Support	Support	Support
Weight ( g )	200	200	250
Installation Size (W*H*D)(mm)	32×110×97	32×110×97	32×110×97

## CPU Module



CPU Module		CPU301-0101	CPU301-0331
CPU Processing Capacity	CPU Frequency	400MHz	1GHz
	Bit instruction Speed	0.05 us	0.02 us
	Word instruction Speed	0.1 us	0.04 us
Storage Capacity	Program	32M	32M
	Data	32M	128M
Supply Voltage	Voltage Upper Limit	5.25V	5.25V
	Rated Value	5.0V	5.0V
	Voltage Lower Limit	4.75V	4.75V
Current Consumption	Supply Current(Max)	0.6A	1.5A
	Rated Supply Current	0.5A	1.0A
	Typical Power Consumption	2.5W	5W
Ethernet Interface		2	2
Number of IP addresses		2	2
RS485 Port		2	2
Programming Language	LD	support	support
	ST	support	support
	IL	support	support
	FBD	support	support
	SCC	support	support
Weight ( g )		160	250
Installation Size (W*H*D)(mm)		32×110×97	64×110×97

Digital Module

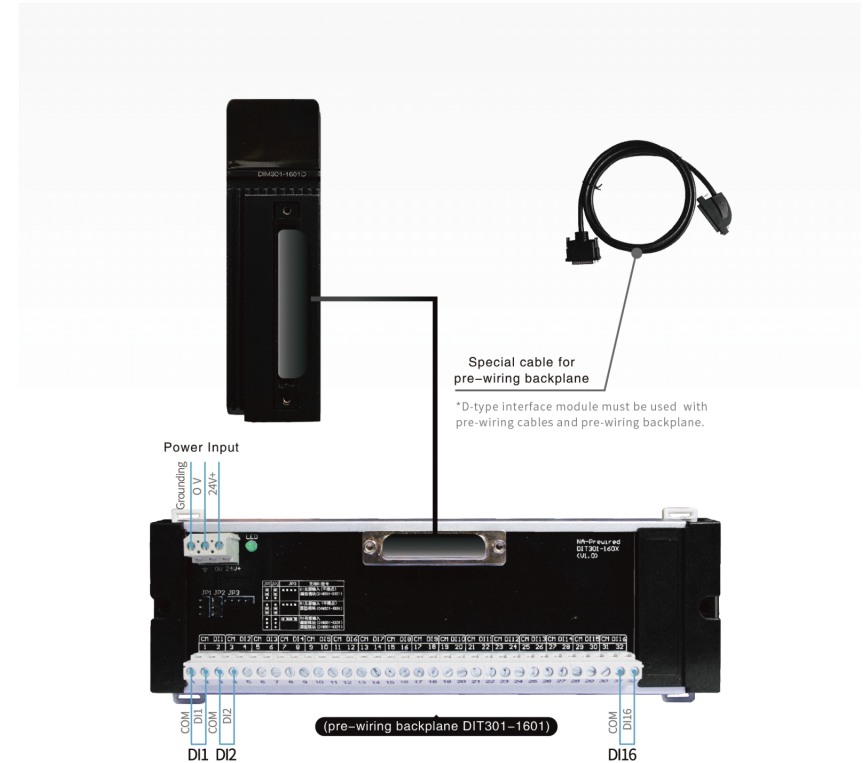


Module Type		DIM301-1601	DIM301-1601D
<b>Input Characteristics</b>			
Input Channel		16 points	16 points
Input Type		Sink/Source	Sink/Source
Input Voltage	Rated Value	24V DC	24V DC
	Signal 1	14 ~ 30V	14 ~ 30V
	Signal 0	0 ~ 5V	0 ~ 5V
Input Delay		<=0.5ms	<=0.5ms
Isolation Method		Photoelectric Isolation	Photoelectric Isolation
Isolation Group		2	2
Isolation Voltage		3750 Vr.m.s.	3750 Vr.m.s.
Connection Mode		Terminal	D-type Interface
<b>Physical Characteristics</b>			
Installation Size (W*H*D)(mm)		32×110×97	32×110×97
Weight(g)		140	140
Power Consumption(MAX)		1W	1W

Module Type		DIM301-3201	DIM301-3201D
<b>Input Characteristics</b>			
Input Channel		32 points	32 points
Input Type		Sink/Source	Sink/Source
Input Voltage	Rated Value	24V DC	24V DC
	Signal 1	14 ~ 30V	14 ~ 30V
	Signal 0	0 ~ 5V	0 ~ 5V
Input Delay		<=0.5ms	<=0.5ms
Isolation Method		Photoelectric Isolation	Photoelectric Isolation
Isolation Group		4	4
Isolation Voltage		3750 Vr.m.s.	3750 Vr.m.s.
Connection Mode		Terminal	D-type Interface
<b>Physical Characteristics</b>			
Installation Size (W*H*D)(mm)		32×110×97	32×110×97
Weight ( g )		160	160
Power Consumption(MAX)		1.6W	1.6W

DIM301-1601D Connection mode of module and pre-wiring backplane

- Connection diagram of module and pre-wiring backplane

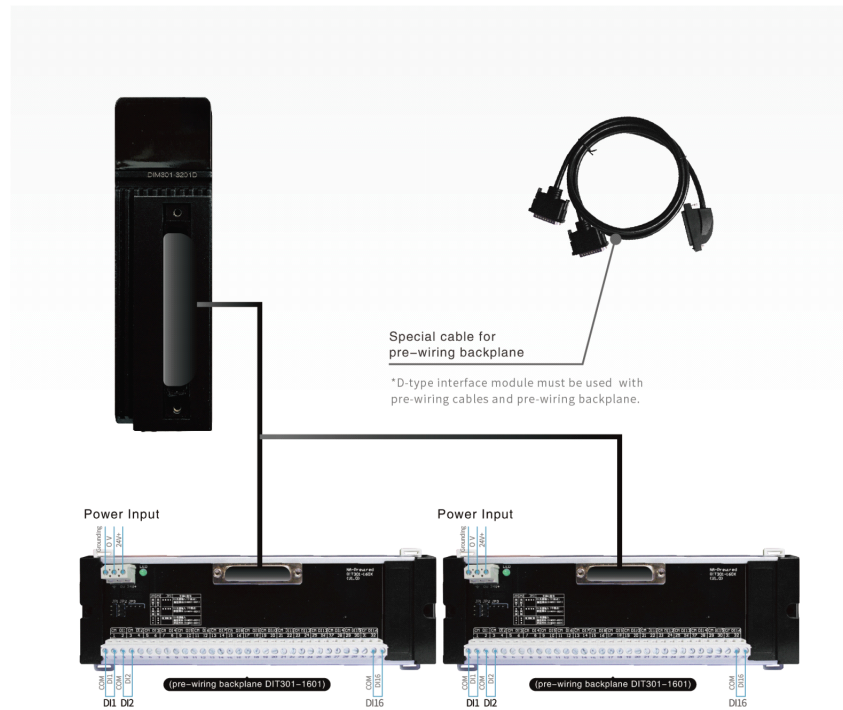


- DIM301-1601D Type and quantity of module matching pre-wiring cable and pre-wiring backplane

Group	Type	Quantity	Remarks
Module Type	DIM301-1601D	1	
Pre-wiring Backplane	DIT301-1601	1	
Pre-wiring Cable	CNL301-0152	1	1.5M
	CNL301-0202		2.0M
	CNL301-0252		2.5M

### DIM301-3201D Connection mode of module and pre-wiring backplane

- Connection diagram of module and pre-wiring backplane



- DIM301-3201D Type and quantity of module matching pre-wiring cable and pre-wiring backplane

Group	Type	Quantity	Remarks
Module Type	DIM301-3201D	1	
Pre-wiring Backplane	DIT301-1601	2	
Pre-wiring Cable	CNL301-1152	1	1.5M
	CNL301-1202		2.0M
	CNL301-1252		2.5M



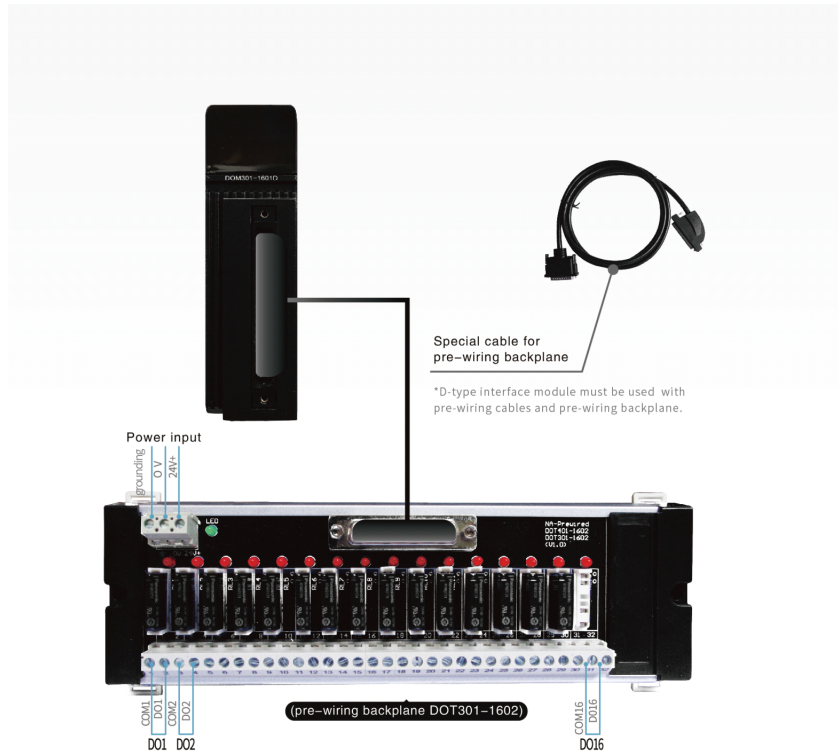
Module Type	IIM301-1601	IIM301-3201
Input Characteristics		
Input Channel	16 points	32 points
Input Type	Source	Source
Input Voltage	Rated Value	24V DC
	Signal 1	14 ~ 30V
	Signal 0	0 ~ 5V
Input Delay	<=0.5ms	<=0.5ms
SOE Resolution	1ms	1ms
Isolation Method	Photoelectric Isolation	Photoelectric Isolation
Isolation Group	1	2
Isolation Voltage	3750 Vr.m.s.	3750 Vr.m.s.
Connection Mode	Terminal	Terminal
Physical Characteristics		
Power Consumption(MAX)	1W	1.6W
Weight (g)	140	160
Installation Size (W*H*D)(mm)	32x110x97	32x110x97

Module Type	DOM301-1601	DOM301-1601D	DOM301-3201	DOM301-3201D
Output Characteristics				
Output Channel	16 Points	16 Points	32 Points	32 Points
Output Type	Transistor(24V)	Transistor(24V)	Transistor(24V)	Transistor(24V)
Total Output Current of Common Terminal(Horizontal Installation)	3A	3A	3A	3A
Maximum Current of Single Node	500mA	500mA	500mA	500mA
Isolation Method	Photoelectric Isolation	Photoelectric Isolation	Photoelectric Isolation	Photoelectric Isolation
Contact life	-	-	-	-
Isolation Group	2	2	4	4
Connection Mode	Terminal	D-type Interface	Terminal	D-type Interface
Physical Characteristics				
Power Consumption(MAX)	1.5W	1.5W	2.25W	2.25W
Weight (g)	140	140	180	180
Installation Size (W*H*D)(mm)	32x110x97	32x110x97	32x110x97	32x110x97



DOM301-1601D Connection mode of module and pre-wiring backplane

- Connection diagram of module and pre-wiring backplane

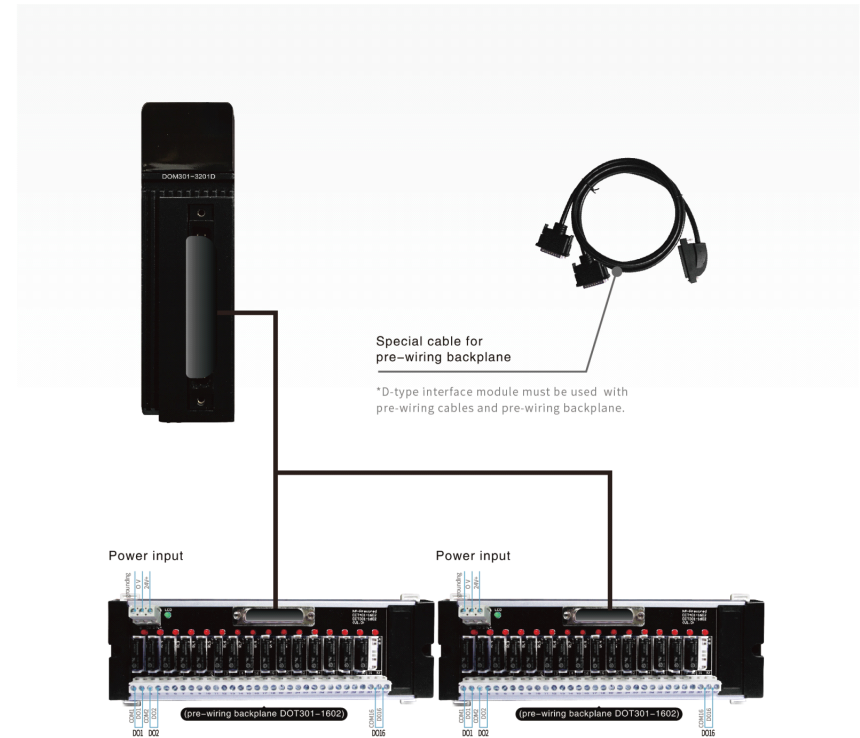


- DOM301-1601D Type and quantity of module matching pre-wiring cable and pre-wiring backplane

Group	Type	Quantity	Remarks
Module Type	DOM301-1601D	1	
Pre-wiring Backplane	DOT301-1602	1	
Pre-wiring Cable	CNL301-0152	1	1.5M
	CNL301-0202		2.0M
	CNL301-0252		2.5M

DOM301-3201D Connection mode of module and pre-wiring backplane

- Connection diagram of module and pre-wiring backplane



- DOM301-3201D Type and quantity of module matching pre-wiring cable and pre-wiring backplane

Group	Type	Quantity	Remarks
Module Type	DOM301-3201D	1	
Pre-wiring Backplane	DOT301-1602	2	
Pre-wiring Cable	CNL301-1152	1	1.5M
	CNL301-1202		2.0M
	CNL301-1252		2.5M

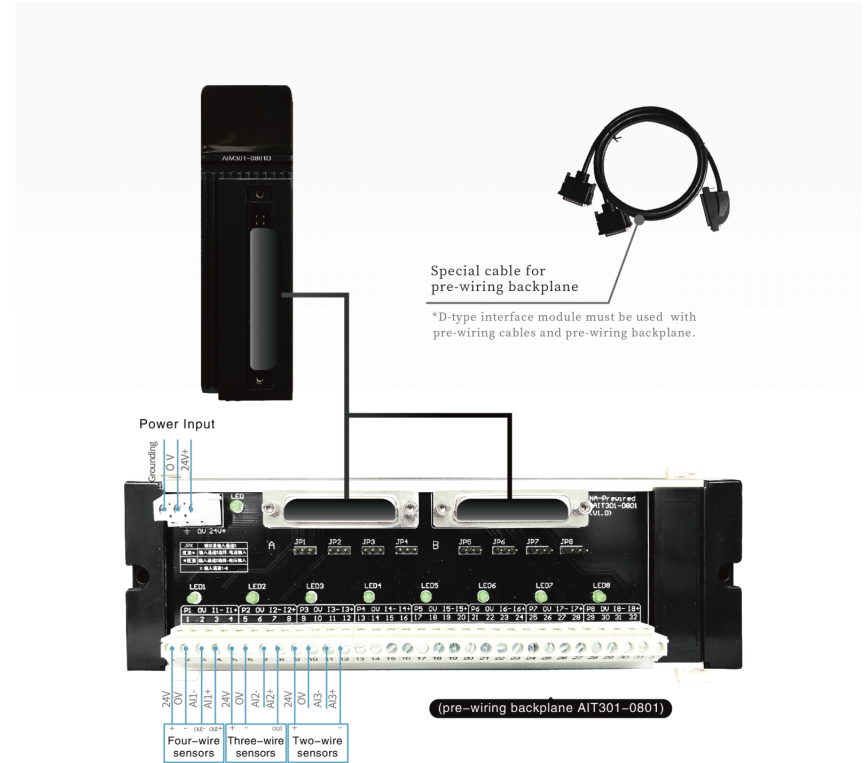
Analog Module

Module Type	AIM301-0801	AIM301-0801D	AIM301-1602	AIM301-1602D
Input Channel	8 Points	8 Points	16 Points	16 Points
Input Type	Single-ended Input	Single-ended Input	Single-ended Input	Single-ended Input
A/D Resolution	16 bits	16 bits	16 bits	16 bits
Temperature Range	0.2%	0.2%	0.2%	0.2%
Acquisition accuracy	0.2%	0.2%	0.2%	0.2%
A/D Conversion Time	<100us	<100us	<100us	<100us
Signal Type	-10V ~ +10V, 0V ~ +10V, -5V ~ +5V, 0V ~ +5V, 0 ~ 20mA, 4 ~ 20mA	-10V ~ +10V, 0V ~ +10V, -5V ~ +5V, 0V ~ +5V, 0 ~ 20mA, 4 ~ 20mA	0 ~ 20mA, 4 ~ 20mA	0 ~ 20mA, 4 ~ 20mA
Data Format	-10V ~ +10V -5V ~ +5V 0V ~ +10V 0V ~ +5V 0 ~ 20mA 4 ~ 20mA	-10V ~ +10V -5V ~ +5V 0V ~ +10V 0V ~ +5V 0 ~ 20mA 4 ~ 20mA	0 ~ 20mA 0 ~ 20000 4 ~ 20mA 4000 ~ 20000	0 ~ 20mA 0 ~ 20000 4 ~ 20mA 4000 ~ 20000
Input Step Response	5ms	5ms	5ms	5ms
CMRR	>90dB	>90dB	>90dB	>90dB
Temperature Drift	±100ppm/°C	±100ppm/°C	±100ppm/°C	±100ppm/°C
Power Consumption	1.9W/5V	1.9W/5V	2.4W	2.4W
Weight(g)	140	140	140	140
Installation Size (W*H*D)(mm)	32×110×97	32×110×97	32×110×97	32×110×97

Module Type	AIM301-0805	AIM301-0806
Input Channel	8 Points	8 Points
Signal Type	Pt100, Cu50, Cu53, Cu100, Pt100(GOST), Cu100(GOST), Ni100(GOST)	S, T, R, E, N, K, J Voltage range: +/-80mV
A/D Resolution	24 bit	24 bit
Temperature Range	0.1%	0.2%(for type of S,R and T); 0.1%(for other type)
Data Format	10 Times of Real Value	10 Times of Real Value
Sensor	2-wire System 3-wire System	√ -
Module Refresh Cycle	300ms	300ms
CMRR	>90dB	>90dB
Temperature Drift	±100ppm/°C	±100ppm/°C
Power Consumption	2.4W/5V	2W/5V
Weight(g)	140	140
Installation Size (W*H*D)(mm)	32×110×97	32×110×97

AIM301-0801D Connection mode of module and pre-wiring backplane

- Connection diagram of module and pre-wiring backplane



- AIM301-0801D Type and quantity of module matching pre-wiring cable and pre-wiring backplane

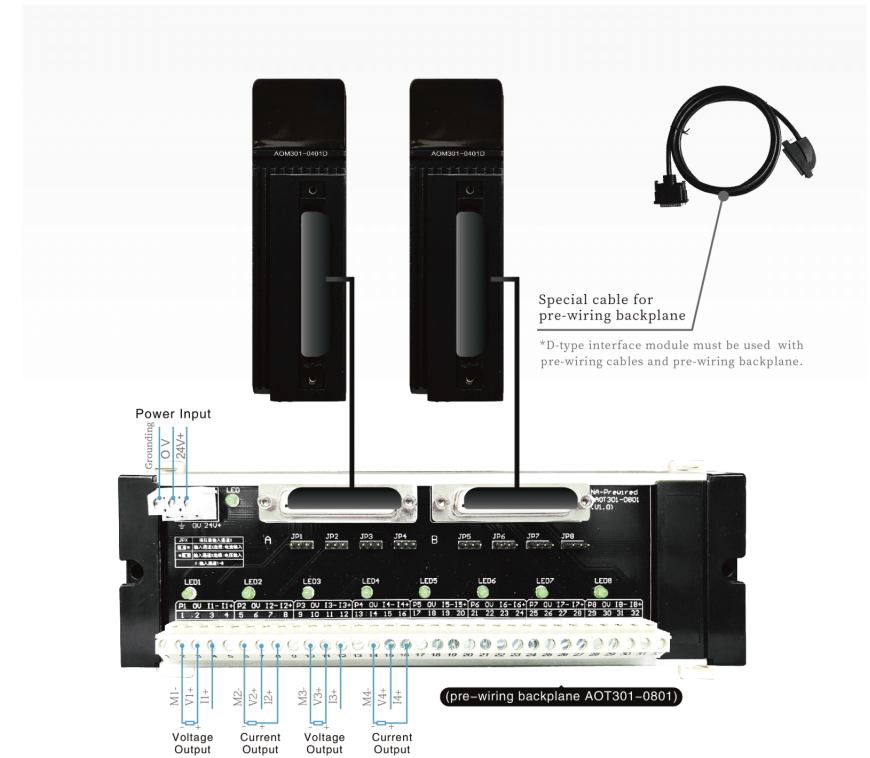
Group	Type	Quantity	Remarks
Module Type	AIM301-0801D	1	
Pre-wiring Backplane	AIT301-0801	1	
Pre-wiring Cable	CNL301-1152	1	1.5M
	CNL301-1202		2.0M
	CNL301-1252		2.5M

Module Type	AOM301-0401		AOM301-0401D	
Output Points	4		4	
Output Range	-10V ~ +10V, 0V ~ +10V, 1V-5V -5V ~ +5V, 0V ~ +5V, 0 ~ 20mA, 4 ~ 20mA, 0-10mA		-10V ~ +10V, 0V ~ +10V, 1V-5V -5V ~ +5V, 0V ~ +5V, 0 ~ 20mA, 4 ~ 20mA, 0-10mA	
Data Format	4 ~ 20mA (Max24mA)	4000 ~ 20000 (Max24000)	4 ~ 20mA (Max24mA)	4000 ~ 20000 (Max24000)
	0 ~ 20mA (Max24mA)	0 ~ 20000 (Max24000)	0 ~ 20mA (Max24mA)	0 ~ 20000 (Max24000)
	0 ~ 10mA (Max12mA)	0 ~ 20000 (Max24000)	0 ~ 10mA (Max12mA)	0 ~ 20000 (Max24000)
	0-5V (Max5.5V)	0-20000 (Max22000)	0-5V (Max5.5V)	0-20000 (Max22000)
	1-5V (Max5.5V)	4000-20000 (Max22000)	1-5V (Max5.5V)	4000-20000 (Max22000)
	-5-5V	0-20000	-5-5V	0-20000
	0-10V (Max11V)	0-20000 (Max22000)	0-10V (Max11V)	0-20000 (Max22000)
	-10-10V	0-20000	-10-10V	0-20000
D/A conversion digits	16 Bits		16 Bits	
Output Error	0.2%		0.2%	
Linear Error	0.05%		0.05%	
Isolation	No		No	
Setting Time	<900us		<900us	
Driving Ability	Current Load: <1000Ω		Current Load: <1000Ω	
	Voltage Load: >2000Ω		Voltage load: >2000Ω	
Error/ Precision(Relative to the output range)	0.1%		0.1%	
Power Consumption(MAX)	2.6W/5V		2.6W/5V	
Weight(g)	140		140	
Installation Size (W*H*D)(mm)	32×110×97		32×110×97	



AOM301-0401D Connection mode of module and pre-wiring backplane

- Connection diagram of module and pre-wiring backplane

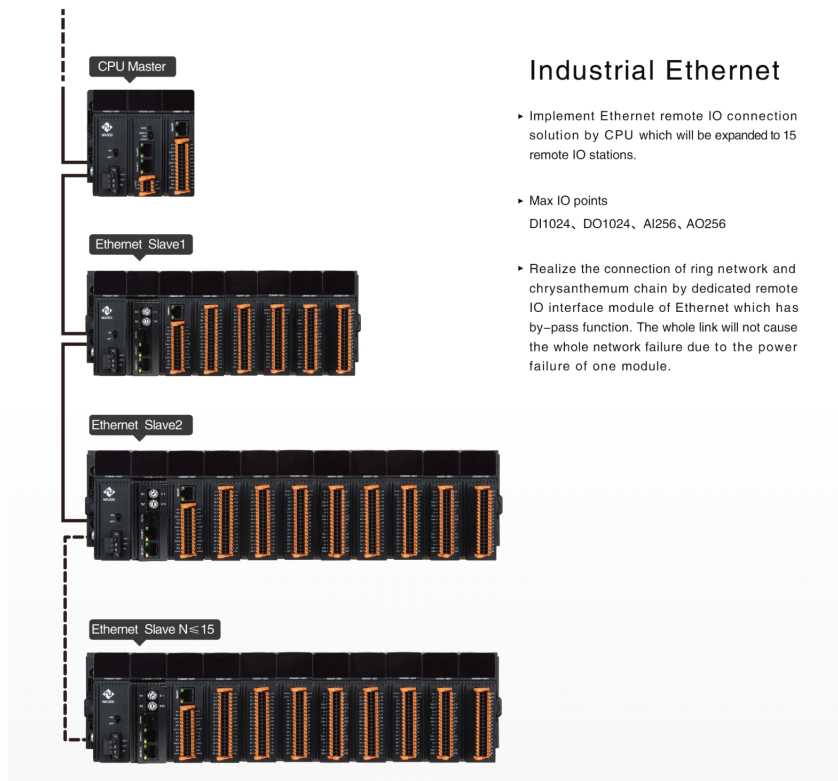


- AOM301-0401D Type and quantity of module matching pre-wiring cable and pre-wiring backplane

Group	Type	Quantity	Remarks
Module Type	AOM301-0401D	2	
Pre-wiring Backplane	AOT301-0801	1	
Pre-wiring Cable	CNL301-0152	2	1.5M
	CNL301-0202		2.0M
	CNL301-0252		2.5M

## Communication Module

Serial Module Type	CMM301-0401	CMM301-0103	CMM301-0118	CMM301-0109
Power Consumption	3.0W/5V	2.0W/5V	<6W	<5W
Current Consumption	600mA/5V	400mA/5V	<1.2A@5V	<1A@5V
Serial Number	4	1	3	2
Serial Type	RS485	Profibus DP	EIO	Profinet
Support Communication Baud Rate	2.4-38.4 kbps	4800-12M bps	100M bps	100M bps
Serial Isolation	YES	YES	YES	YES
Support Independent Interrupt	YES	YES	YES	YES
Protocol	MODBUS Master	Profibus DP	Private Protocol	Profinet
Weight(g)	160	220	220	220
Installation Size (W*H*D)(mm)	32×110×97	32×110×97	32×110×97	32×110×97



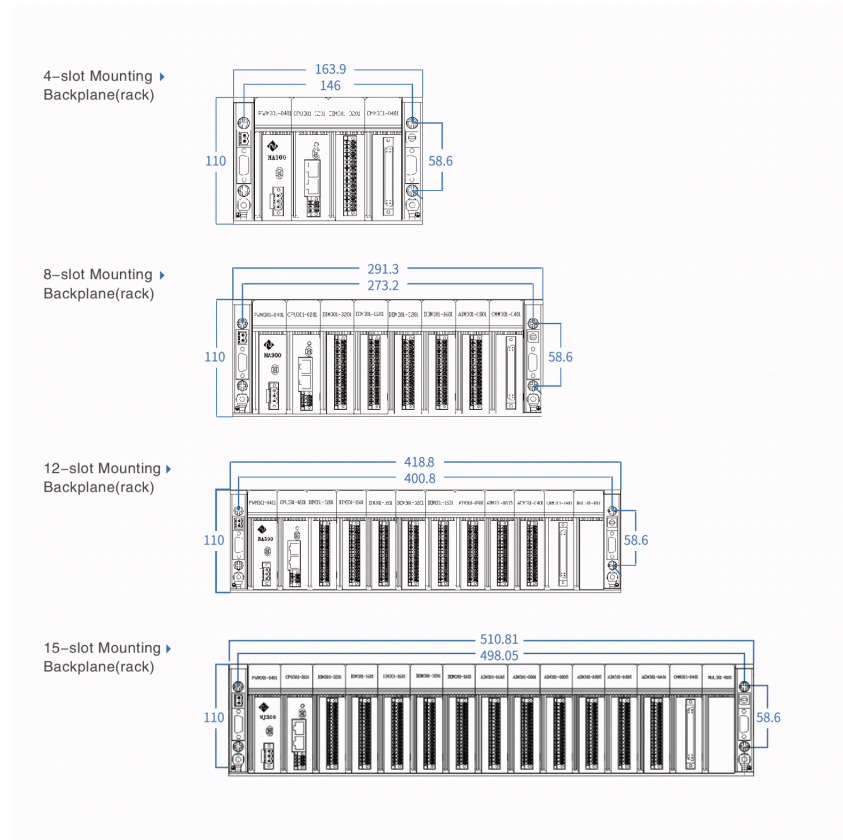
## Industrial Ethernet

- ▶ Implement Ethernet remote IO connection solution by CPU which will be expanded to 15 remote IO stations.
- ▶ Max IO points  
DI1024、DO1024、AI256、AO256
- ▶ Realize the connection of ring network and chrysanthemum chain by dedicated remote IO interface module of Ethernet which has by-pass function. The whole link will not cause the whole network failure due to the power failure of one module.

## High-speed counter module

Module Type	HCM301-0801	HCM301-0811 (Remote station)	HCM301-0302 SSI
Power Consumption	3.0W/5V	3.0W/5V	3.0W/5V
Current Consumption	600mA/5V	600mA/5V	600mA/5V
Channels	8 (High-speed counter)	8 (High-speed counter)	3 (SSI)
Bit Width	-	-	8-31bits
Support Communication Baud Rate	10-100 kHz	10-100 kHz	100 kHz, 200 kHz, 500 kHz, 1MHz
Refresh Interval	-	-	1ms
Hot Plug	YES	YES	YES
Encoder	-	-	SSI Absolute Encoder, 24V (Tolerance: 19.2-30Vdc)
Weight(g)	140	140	250
Installation Size (W*H*D)(mm)	32×110×97	32×110×97	32×110×97

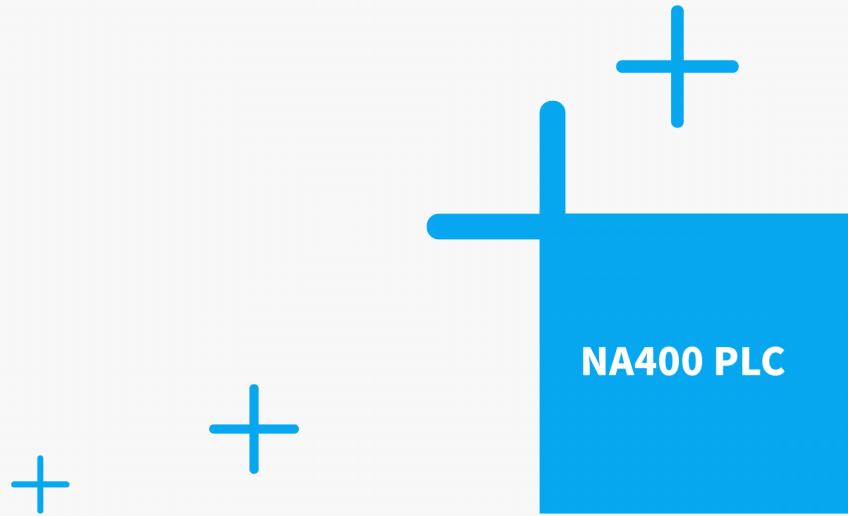
Size and Installation



Quick selection table

Module Name	Module Type	Description
NA300 CPU Modules	CPU301-0101	Standard CPU,build-in 2 RS485(standard Modbus),2Ethernet port(standard Modbus)/TCP,Program space 32M
	CPU301-0331	Standard CPU,build-in 2 RS485(standard Modbus),2Ethernet port(standard Modbus)/TCP,Program space 32M
NA300 Digital Input Modules	DIM301-1601	Digital DC Input Modules,16points input 24VDC (Include CNE301-3601)
	DIM301-1601D	Digital DC Input Modules,16points input 24VDC (DB40 Fast-plug connectors)
	DIM301-3201	Digital DC Input Modules,32points input 24VDC (Include CNE301-3601)
	DIM301-3201D	Digital DC Input Modules,16points input 32VDC (DB40 Fast-plug connectors)

Module Name	Module Type	Description
NA300 Digital Output Modules	DOM301-1601	Digital DC Output Modules, 16 points output 24VDC transistor (Include CNE301-3601)
	DOM301-1601D	Digital DC Output Modules, 16 points output 24VDC transistor (DB40 Fast-plug connectors)
	DOM301-3201	Digital DC Output Modules, 32 points output 24VDC transistor (Include CNE301-3601)
	DOM301-3201D	Digital DC Output Modules, 32 points output 24VDC transistor (DB40 Fast-plug connectors)
NA300 SOE Modules	IIM301-1601	SOE Modules,16 points input 24VDC (Include CNE301-3601)
	IIM301-3201	SOE Modules,32 points input 24VDC (Include CNE301-3601)
NA300 High Speed Counting Modules	HCM301-0801	High Speed Counting Modules,8 channels (8*100KHz)
	HCM301-0811	High Speed Counting Modules( Remote station ),8 channels (8*100KHz)
NA300 Analog Input Modules	AIM301-0801	Analog Input Modules,8 channels,Voltage/current,16A/D (Include CNE301-3601)
	AIM301-0801D	Analog Input Modules,8 channels,Voltage/current,16A/D (DB40 Fast-plug connectors)
	AIM301-1602	Analog Input Modules,16channels,4-20mA,16A/D (Include CNE301-3601)
	AIM301-1602D	Analog Input Modules,16channels,4-20mA,16A/D (DB40 Fast-plug connectors)
	AIM301-0805	RTD Input Modules,8channels (Include CNE301-3601)
	AIM301-0806	Thermocouple Input Modules,8channels (Include CNE301-3601)
NA300 Analog Output Modules	AOM301-0401	Analog Output Modules,4 channels,Voltage/current,16D/A (Include CNE301-3601)
	AOM301-0401D	Analog Output Modules,4 channels,Voltage/current,16D/A (DB40 Fast-plug connectors)
NA300 Communication Modules	CMM301-0401	4×RS485 (Include CNE301-2601)
	CMM301-0103	Profibus-DP slave (Without Profibus connector)
	CMM301-0109	Profinet-DP slave (Without Profinet connector)
	CMM301-0118S	Remote IO Interface Modules,Dual network ports,Support the connection of daisy chain
NA300 Power-supply Modules	CMM301-0118	Remote IO Interface Modules,Dual network ports,Support the connection of ring network and daisy chain
	PWM301-0401	Power: 40W DC24V Input
	PWM301-0404	Power: 40W DC24V Input (Redundant Power)
NA300 Accessories	PWM301-1001	Power: 100W DC24V Input
	BKM301-0401	4 Slot Backplane
	BKM301-0801	8 Slot Backplane
	BKM301-1201	12 Slot Backplane
	BKM301-1501	15 Slot Backplane
	CNE301-3601	36-core Terminal—Release lever
	CNE301-2601	26-core Terminal—Release lever (CMM301-0401)
	CNL001-0010	Bus extension cable, 1M
	CNL001-0020	Bus extension cable, 2M
	CNL001-0030	Bus extension cable, 3M
	CNL301-0152	Pre-wiring Cable (DIM301-1601D、DOM301-1601D、AOM301-0401D), 1.5M
	CNL301-0202	Pre-wiring Cable (DIM301-1601D、DOM301-1601D、AOM301-0401D), 2.0M
	CNL301-0252	Pre-wiring Cable (DIM301-1601D、DOM301-1601D、AOM301-0401D), 2.5M
	CNL301-1152	Pre-wiring Cable (DIM301-3201D、DOM301-3201D、AIM301-0801D、AIM301-1602D), 1.5M
	CNL301-1202	Pre-wiring Cable (DIM301-3201D、DOM301-3201D、AIM301-0801D、AIM301-1602D), 2.0M
	CNL301-1252	Pre-wiring Cable (DIM301-3201D、DOM301-3201D、AIM301-0801D、AIM301-1602D), 2.5M
	DIT301-1601	Pre-wiring Backplane ,16-channel input (DIM301-1601D、DIM301-3201D)
	DOT301-1602	Pre-wiring Backplane ,16-channel relay output, (DOM301-1601D、DOM301-3201D)
	AIT301-0801	Pre-wiring Backplane ,8-channel input,Voltage/current (AIM301-0801D)
	AIT301-1602	Pre-wiring Backplane ,16-channel input,current (AIM301-1602D)
AOT301-0801	Pre-wiring Backplane ,16-channel output,Voltage/current (AOM301-0401D*2)	
BUS301-0101	Bus Adapter	
NUL301-0101	Empty Slot Module	



### NA400 Hardware System



NA400 hardware system contains Backplane, Power supply Module, CPU, Communication Module, and I/O Module.

▪ **Controller Module**

Also named as CPU Module, and installed at backplane. The CPU Module has two types of controller which is "Redundancy" or "Non-redundancy." The controller has an internal Ethernet as 10/100 Mbps, two serial communication interfaces. In order to plug the controller in/out of the backplane in case of overheat, the internal bus will lead to outside through local backplane.

▪ **Power supply Module**

Power supply Module is installed at backplane in order to supply the electrical power. In order to ensure the electric isolation between the field and system, the power bank will give electric power to the field device and to supply other configurations.

▪ **SOE – Sequence of Events Recording**

Provide the SOE, which has 1(MS) resolution.

▪ **Regular I/O PLC**

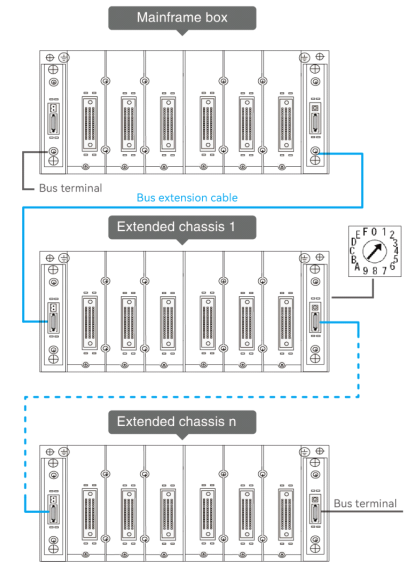
The module can be installed at local/expansion backplane, connect with controller through a high-speed internal bus.

▪ **Communication Process Module**

This can be installed at local/expansion backplane, and that is for adding other communication protocol. NA400 PLC will communicate through many third-party facilities or other network protocol such as RS232/RS485, Device Net, PROFIBUS-DP, Ethernet, and etc.

▪ **Backplane**

Installed controller, power bank, and I/O Module's carrier; it also approve the expansion of high-speed local bus.



## NA400 Technical Features

### Have Much Better Electromagnetic Compatibility Than Other PLC

The concept of electromagnetic compatibility has run through design the principle, circuit board design, and system structure design for the entire development process. The EMC Index is higher than the third level of the international standard. The static, and high-speed transient have reached 4th level standard.

### Fieldbus Technology

NA-PLC uses fieldbus network with fast communication speed rate, anti-interference ability, low cost, simple structure, good real-time ability, and excellent expansibility. In order to implement a flexible configuration much easier for the module, we highly improved the adaptability of the site environment and installation requirements.

### Sequence Control Diagram Programming Technology

The sequence control diagram programming language is a visualized language when it was designed as "What you see is what you get" technique. The controlling procedure is very similar with what the designing units have designed. The programming is terminated as when the controlling procedure was completed. Also, the process of the programming is very easy to learn.

Furthermore, users can transfer various of program that was made of different languages in order to be more flexible when editing a program, and satisfy more requirements when the situation is getting more complicated. Users are able to set and operate sequence control diagram, graphical display, single-step execution, to

### Network Program and Debug

NA-PLC uses unified programming and debugging software. Provide 10/00M Ethernet as the interface of programming and debugging, and offer online debugging download. Through the Ethernet programming and debugging, the editing and online maintenance of devices at current place will be completed by remote control center.

### Direct Synchronization of Satellite Clock Interface

Directly place 5 ~ 24V level satellite clock signal access into the terminal, and no need for maintenance or protection. The time mark will be generated by sequence recording module, and the time can be more precise.

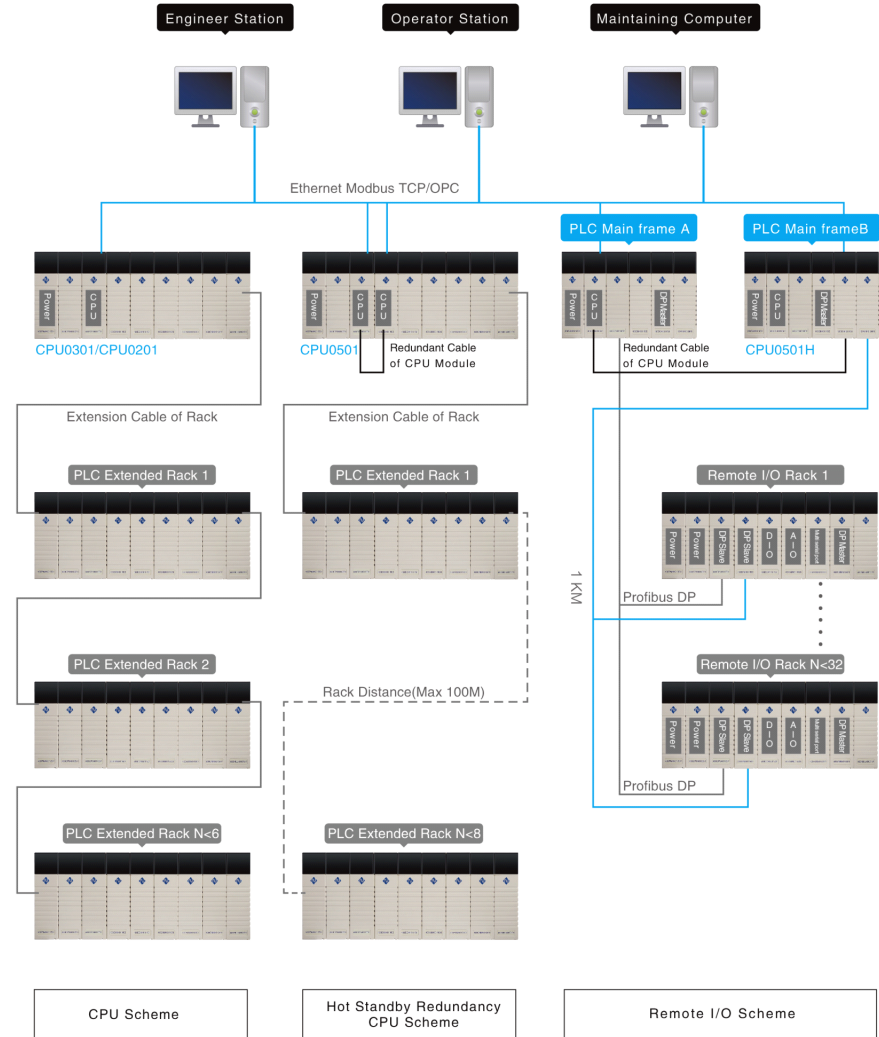
### A Powerful Serial Communication

Serial Communication Module: Allowing distributing the numbers of module freely. Every serial communication module has eight serial ports; also they all accept RS-232/RS-485 interface standards and programmable mode.

## General technical index of NA400 hardware system

System Power Supply	5VDC	Power Supply	5VDC (± 5 %)
		Ripple	<5%
		Reverse polarity protection	support
EMC	ESD immunity	Surge immunity	IEC61000-4-5 4kV
		Oscillation and immunity	IEC61000-4-12 2.5kV
		Fast transient	IEC61000-4-4
	Electromagnetic radiation	Electrostatic discharges	IEC61000-4-2
		Radiation electromagnetic field anti interference	IEC61000-4-3t
		Radiated disturbance	IEC61131-2 30-230MHz 10m sub-peak value<40dB
Environment adaptability	Climatic environment	Conduction interference	IEC61131-2 0.15/0.5MHz sub-peak value<79dB
		Operating temperature	-10 °C ~ +55 °C
		Working humidity	5% ~ 95%, no condensation
		Working altitude	0 ~ 3000m
		Storage temperature	-40°C ~ +60°C
	Mechanical environment	Storage humidity	5% ~ 95%, no condensation
		Shock	IEC60068-2-6/Part 2-6/10 up 58Hz
		Vibration	IEC 60068-2-27
		Drop and topple	IEC 60068-2-31
		Free fall	IEC 60068-2-32
Enclosure protection	Protection degree	IEC60529 IP20	

## NA400 Network Structure







**NA400 hot standby function**

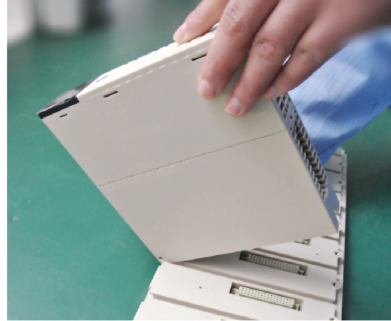
- Complete the thermal function automatically;
- Complete all data exchange in a scan cycle;
- Download program: just download once, output the program quickly and efficiently;
- Hot standby switching time is shorter, about 10~50ms.

**Multiple mechanisms to improve reliability increase**

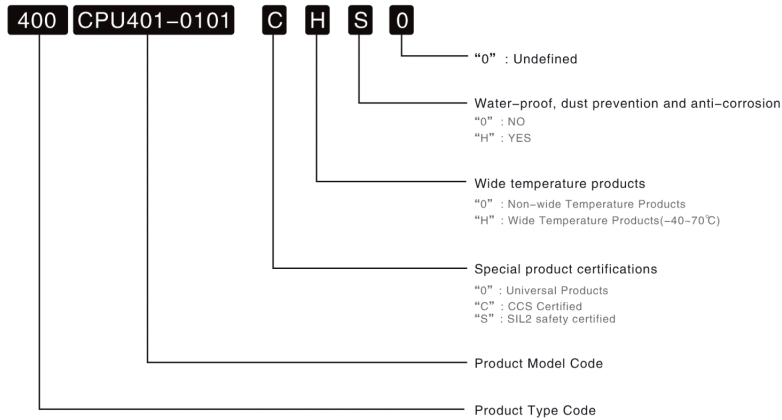
- Master station and standby station can be switched automatically;
- All modules support hot plug;
- All modules can be replaced without stopping and powering off system;
- Switching the system can be accomplished by SWITCH.

**Hot standby CPU data interchange mechanism**

Data is transferred from the main CPU to the standby one;  
Data exchange at the beginning of each scan cycle;  
The data transmission is executed synchronously with the PLC program, and the transmission time is greatly shortened.



**Description of the order number**



**CPU Modules**

**Powerful processor**

Loongson、ARM、X86 CPU  
Range of main frequency:266M-1GHz

**LED display**

Module working status  
Communication status

**Integrated multiple communication ports**

Modbus RS232  
Ethernet TCP/IP

**Human-machine interface**

Connect with HMI without programming



**Storage**

Large capacity electronic hard disk  
High capacity memory

Module type	CPU401-0221	CPU401-0331	CPU401-0431	CPU401-0531
CPU power	Frequency	400MHz	1GHz	1GHz
	Boolean	0.05μs	0.01μs	0.01μs
	Word instruction execution speed	0.1μs	0.02μs	0.02μs
	Integer	0.1μs	0.02μs	0.02μs
Storage capacity	Floating point speed	1μs	0.1μs	0.1μs
	Procedure	1M	16M	16M
	Data	1M	128M	128M
Power	Backplane bus	35~70mA	35~70mA	35~70mA
	Power dissipation	2.1W	5W	5W
Redundant CPU module		NO	NO	YES
Ethernet interface	10/100MbpsX1	10/100/1000MbpsX1	10/100/1000MbpsX2	10/100/1000MbpsX1
Serial Interface	RS232x2	RS485x2	RS485x2	RS485x2
Timer(T)	256	512	1024	1024
Counter(C)	256	512	1024	1024
Bit-register(M)	4096	8192	16384	16384
Word register(MW)	4096	16384	32768	16384
Power down hold bit register(N)	1024	2048	4096	4096
Power down hold word register(NW)	1024	2048	4096	4096
Bit register(S)	1024	2048	4096	4096
Word register(SW)	1024	2048	4096	4096
Digital	Digital input(I)	1024	4096	8192
	Digital output(O)	1024	4096	8192
Analog	Analog input(IW)	256	1024	2048
	Analog output(OW)	256	1024	2048
Expansion capacity	Extended frame number	4	6	8
	Extended module number	60	90	120
Communication capacity	MODBUS	√	√	√
	Profibus	√	√	√
	CANBus	√	√	√
Programming language	LD	√	√	√
	ST	√	√	√
	IL	√	√	√
	FBD	√	√	√
	SFC	/	/	/
Weight and dimension	SCC	√	√	√
	Weight	350g	400g	430g
Length*Width*Height		162x40x145	162x40x145	162x40x145

### Digital input module

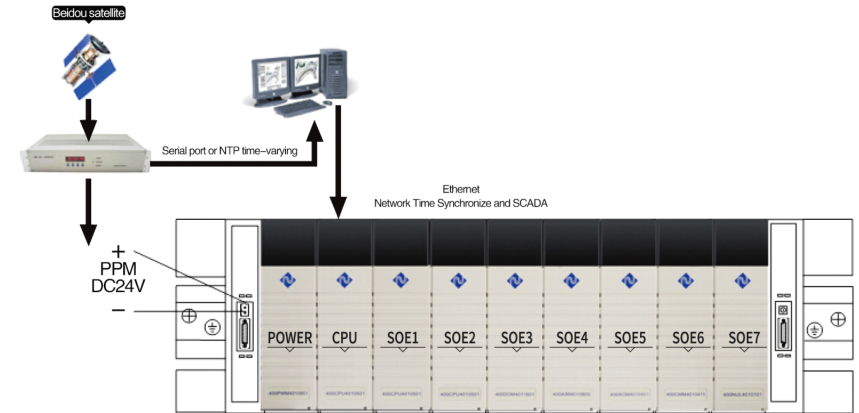
Rated input voltage 24VDC/AC220V  
 Suitable for switch and proximity switch of 2/3/4 wires  
 Intelligent modules with self diagnostic function  
 Support hot standby



Module Type		DIM401-1601	DIM401-1602	DIM401-3201	DIM401-3202	DIM401-1603
Power	Backplane bus	35-70mA				
	Power consumption	1.9W		2.2W		
Input channels		16		32		16
Channel per group		8		16		8
Signal input type		sink	source	sink	source	
Signal input voltage	Rating	24VDC				
	"0" signal	-30-5V		0-80V		
	"1" signal	11-30V		140-265V		
Input current "1"		6mA		7mA		
Max input delay	"0" ~ "1"	0.5ms		0.5ms		
	"1" ~ "0"	0.5ms		0.5ms		
Diagnostic supporting		✓	✓	✓	✓	✓
Input filtering		✓	✓	✓	✓	✓
Insulation testing		500VDC				500VDC
Quarantine	Channels	✓	✓	✓	✓	✓
	Channel and backplane	✓,optoelectronic isolation	✓,optoelectronic isolation	✓,optoelectronic isolation	✓,optoelectronic isolation	✓,optoelectronic isolation
Seize and weight	Weight	350g		400g		
	Length*Width*Height	162 × 40 × 145				

### SOE Module

Each measurement point has the function of SOE.If the input signal is changed, it will send the change information and action time to the CPU module automatically.Event resolution is 1ms.



Module Type		IIM401-1601	IIM401-1612	IIM401-3201	IIM401-3212
Power	Backplane bus	35-70mA			
	Power consumption	1.9W		2.2W	
Input channels		16		32	
Channel per group		8		16	
Signal input type		sink	source	sink	source
Resolution		0.5ms			
Signal input voltage	Rating	24V DC			
	Signal "0"	-30-5V			
	Signal "1"	11-30V			
Input current "1"		6mA			
Maximum input delay	"0" ~ "1"	0.1ms			
	"1" ~ "0"	0.1ms			
Support diagnosis		✓		✓	
Input filtering		✓		✓	
Test insulation		500V DC			
Isolation	Channel to channel	✓		✓	
	Channel to backplane	✓,optoelectronic isolation		✓,optoelectronic isolation	
Size and weight	Weight	350g		400g	
	Length*Width*Height	162 × 40 × 145			

## High-speed counter module

- Connect with 5V/24V incremental encoder;
- Connect gate signals by integrating digital input.



Module Type		HCM401-0302	HCM401-0801	HCM401-0811 (Remote station)
Power	Backplane Bus	35-70mA	35-70mA	35-70mA
	Power Dissipation	3.0W/5V	2.2W	2.2W
Counter Number		3	8	8
Operation mode		SSI encoder counter	Counting, measuring speed, frequency measuring and so on	
Input channels per counter		3	2 (A, B)	2 (A, B)
Output channels per counter		2	1	1
Counting range		8-31bits	32bits	32bits
Counting frequency			100KHz	100KHz
Support diagnosis		√	√	√
Input filter			√, settable	√, settable
Test insulation		500V DC	500V DC	500V DC
Isolation	Channel to channel	√	√	√
	Between channel and backplane	√, optoelectronic isolation	√, optoelectronic isolation	√, optoelectronic isolation
Size and weight	Weight	250g	400g	400g
	Length*Width*Height(mm)	162 × 40 × 145	162 × 40 × 145	162 × 40 × 145

## Digital Output Modules

- 16/32 channels 24VDC relay/transistor output;
- Each output has a fuse protection which can protect the module automatically;
- Intelligent modules with self-diagnostic function Support pluggable.



Module Type		DOM401-1601	DOM401-1602	DOM401-3201
Power	Backplane Bus	35-70mA		
	Power Dissipation	2.8W		3.2W
Digital Output	Input channels	16		32
	channels per group	8		16
	Output Type	Transistor	Relay	Transistor
	Short-circuit Protection	√	√	√
Output voltage	"1" signal	24V DC	-	24V DC
Output current	"1" Signal rating	0.5A	5A	0.5A
	Minimum allowable value in 0-40°C	5mA	-	5mA
	Maximum allowed value in 0-40°C	0.6A	-	0.6A
Switching frequency	Resistive loading	100Hz		100Hz
	Inductive loading	0.5Hz		0.5Hz
Self diagnosis loading		√	√	√
Insulation Testing		500V DC	1500V DC	500V DC
Isolation	Channel to channel	√	√	√
	Between channel and backplane	√, optoelectronic isolation	√, optoelectronic isolation	√, optoelectronic isolation
Size and weight	Weight	300g	330g	350g
	Length*Width*Height(mm)	162 × 40 × 145		

## Analog input modules

- Accuracy of measure is 16 bit analog to digital;
- Form of signal input:voltage,electricity,RTD and thermocouple;
- Intelligent modules with self–diagnostic function;
- Support hot standby.



Module type		AIM401-0801	AIM401-1601	AIM401-0802
Power/current Consumption	Backplane bus	35-70mA	35-70mA	35-70mA
	Power consumption	2.4W	2.6W	2.4W
Analog input	Input channels	8	16	8
	Input type	Single-ended	Single-ended	Single-ended
	Maximum input value	25mA	25mA	25mA/10V
Input scope	0~10mA, 0~20mA, 4~20mA	✓	✓	✓
	0~5V, 1~5V	—	—	✓
	-5~5V, 0~10V, -10~10V	—	—	✓
Analog value type	A/D bit(s)	16	16	16
	Convert time	1ms/per channel	1ms/per channel	1ms/per channel
Precision Acquisition		0.2%	0.2%	0.2%
Sensor	Two-wired	✓	✓	✓
	Four-wired	✓	✓	✓
Self diagnosis function		✓	✓	✓
Insulation testing		500V DC	500V DC	500V DC
Isolation	Channel to channel	—	—	—
	Between channel and backboard	✓,Optoelectric isolation	✓,Optoelectric isolation	✓,Optoelectric isolation
Size and weight	Weight ( g )	350	400	350
	Length*Width*Height ( m m )	162x40x145	162x40x145	162x40x145

Module type		AIM401-0803	AIM401-1603	AIM401-0404	AIM401-0804
Power/current Consumption	Backplane bus	35-70mA			
	Power consumption	2.4W	2.6W	2.4W	2.6W
Analog input	Input channels	8	16	4	8
	Input type	Single-ended		Differential	
	Maximum input value	10V		25mA/10V	
Input scope	0~10mA, 0~20mA, 4~20mA	—	—	✓	✓
	0~5V, 1~5V	✓	✓	✓	✓
	-5~5V, 0~10V, -10~10V	✓	✓	✓	✓
Analog value type	A/D bit(s)	16			
	Convert time	1ms/per channel			
Precision Acquisition		0.2%	0.2%	0.2%	0.2%
Sensor	Two-wired	✓	✓	✓	✓
	Four-wired	✓	✓	✓	✓
Self diagnosis function		✓	✓	✓	✓
Insulation testing		500V			
Isolation	Channel to channel	—	—	✓	✓
	Between channel and backboard	✓,Optoelectric isolation	✓,Optoelectric isolation	✓,Optoelectric isolation	✓,Optoelectric isolation
Size and weight	Weight ( g )	350g	400g	350g	400g
	Length*Width*Height ( m m )	162x40x145			

Module type		AIM401-0805	AIM401-0806
Power/current Consumption	Backplane bus	35~70mA	35~70mA
	Power consumption	3.0W	2.8W
Analog input	Input channels	8	8
	Signal type	Pt100, Cu50, Cu53, Cu100, Pt100(GOST),Cu100(GOST),Ni100(GOST)	N, E, E2, R, S, J, T, K, K2,+/-80mV
	Data type	Actual value × 10 ( 32767 when signal offline or disconnection )	Actual value × 10 ( 32767 when signal offline or disconnection ) 0~20000(+/-80mV)
Sensor	A/D bit(s)	16	16
	Two-wired	✓	✓
	Four-wired	✓	—
Self diagnosis function		✓	✓
Isolation	Channel to channel	✓	✓
	Between channel and backboard	✓,Optoelectric isolation	✓,Optoelectric isolation
Size and weight	Weight ( g )	380g	400g
	Length*Width*Height ( m m )	162x40x145	

## Analog output module

Module type		AOM401-0401	AOM401-0402	AOM401-0802
Output channels		4	4	8
Max power consumption		5V 2W	5V 2W	5V 2W
		24V 5W	24V 5W	24V 5W
Output power signal		Electric current	Voltage/electric current	Voltage/electric current
Output signal range	Current output	4~20mA	4~20mA, 0~20mA, 0~10mA	4~20mA, 0~20mA, 0~10mA
	Voltage output	-	0~5V, 1~5V, -5V~5V, 0~10V	0~5V, 1~5V, -5V~5V, 0~10V
Load resistance	Voltage output	-	> 5000Ω	> 5000Ω
	Current output	< 500Ω	< 1000Ω	< 1000Ω
D/A bit(s)		12	16	16
Output error		0.2%	0.1%	0.1%
Linear error		0.05%	0.05%	0.05%
Conversion time(each channel)		Max 0.8ms	Max 0.8ms	Max 0.8ms
Open circuit voltage		24V	21.5V	21.5V
Self diagnosis function		√	√	√
Isolation	Channel to channel	√	-	-
	Between channel and backplane	√	√	√
Weight ( g )		380	410	410
Length*Width*Height ( mm )		162x40x145	162x40x145	162x40x145

## HART

Module type	AIM401-0821	AOM401-0421
Power	2.8W/5V	4.0W/5V
Number of channels	8	4
Signal type	Input 0~22mA	Output 0~22mA
Data format	0 ~ 22000	
Load resistance	Internal resistance 250Ω	Max 10000Ω
Rated voltage	5VDC	
Sampling accuracy	0.1%	0.1%
Linear(linearity)error	0.05%	0.05%
Hart communication mode	Single point	Single point
Each channel	500ms	500ms
HART Communication initialization time	6s	6s
Max open-circuit potential	24V	24V
External current failure limit	MaxDC25mA	MaxDC50mA
Weight ( g )	410	380
Length*Width*Height ( mm )	162x40x145	

## NA400 communication extended modules

- Support RS232/485, Profibus DP, CanOpen, Devicenet
- Support independent ethernet interface expansion



Module type		CMM401-0104	CMM401-0214	CMM401-0102	CMM401-0103	CMM401-0113
Power	Backplane bus	35~70mA	35~70mA	35~70mA	35~70mA	35~70mA
	Power dissipation	3.2W	3.2W	3.2W	3.2W	3.2W
Extended communication port number		1	2	1	1	1
Serial type		CANopen Master	CAN Self-defined Protocol	Profibus DP Master	Profibus DP Slave	Profibus DP Slave
Support communication baud rate		10~1000Kbps	10~1000Kbps	9.6Kbps~12Mbps	9.6Kbps~12Mbps	9.6Kbps~12Mbps
Port isolation		√	√	√	√	√
Programming driven		NO	NO	NO	NO	NO
Weight ( g )		250	250	250	250	250
Length*Width*Height ( mm )		162x40x145	162x40x145	162x40x145	162x40x145	162x40x145

Module type		CMM401-0106	CMM401-0411	CMM401-0118	CMM401-0108	CMM401-0205
Power	Backplane bus	35~70mA	35~70mA	35~70mA	35~70mA	35~70mA
	Power dissipation	3.0W	3.0W	6W	6W	3W
Extended communication port number		1	RS485x4	Ethernet x 3	Ethernet x 3	Ethernet x 2
Serial type		DeviceNet Master	MODBUS RTU Master-Slave	Private Contract	Private Contract	MODBUS TCP Slave
Support communication baud rate		125,250,500Kbps	1.2~115.2Kbps	100Mbps	10/100Mbps	100Mbps
Port isolation		√	√	√	√	√
Weight ( g )		250	250	300	300	270
Length*Width*Height ( mm )		162x40x145	162x40x145	162x40x145	162x40x145	162x40x145

## Power module

- Two types of power supply:DC24V and AC220V N+1 Mode Redundant Power Supply Module.



Module type	PWM401-0501	PWM401-0502	PWM401-0503	PWM401-0504
Input voltage	24VDC	220VAC	24VDC	24VDC
Output voltage	+5V	+5V	+5V	+5V
Rated current	10A	10A	10A	10A
Minimum current	100mA			
Protection mode	Overvoltage protection and short circuit protection			
Connection mode	terminal			
是否冗余	NO	NO	YES	YES
Status indication	√	√	√	√
Weight ( g )	500	500	500	500
Length*Width*Height ( mm )	162x40x145			

Module type	PWM401-0801	PWM401-0802	PWM401-1001	PWM401-1002
Input voltage	24VDC	220VAC	220VAC	220VAC
Output voltage	+5V	+5V	+5V	+5V
Rated current	16A	16A	20A	20A
Minimum current	100mA			
Protection mode	Overvoltage protection and short circuit protection			
Connection mode	terminal			
是否冗余	NO	NO	NO	NO
Status indication	√	√	√	√
Weight ( g )	550g	550g	550g	550g
Length*Width*Height ( mm )	162x40x145			

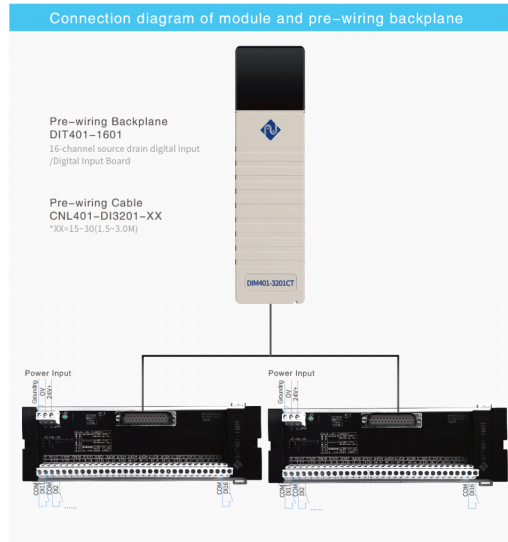
## Accessories



Item	Type	Description
NA400 backplane	BKM401-0601	6 (length × width:341 × 149mm)
	BKM401-0901	9 (length × width:463 × 149mm)
	BKM401-1201	12 (length × width:584 × 149mm)
	BKM401-1501	15 (length × width:706 × 149mm)
NA400 I/O module terminal	CNE401-0101 V1.0	Module connecting terminal
NA400 Communication Module extension cable	CNL401-0203	Communication Module extension cable ( 4 × RS485 ) ,1m
NA400 Bus Extension Cable	CNL401-0102	Bus Extension Cable,1m
	CNL401-0202	Bus Extension Cable,2m
	CNL401-0302	Bus Extension Cable,3m
NA400 CPU hot standby cable	CNL401-0104	CPU hot standby cable
	CNL401-0204	CPU hot standby cable(DP)
NA400 Empty slot module	NUL401-0101	Empty slot module
NA400 Bus Adapter	BUS401-0101	Bus Adapter
NA400 DP Communication module accessories	DP401-0102	PROFIBUS-DP Master Connector
	DP401-0103	PROFIBUS-DP Slave Connector
	CNL401-0113	DP Redundant Cable
	DPPRG401-0101	PROFIBUS-DP

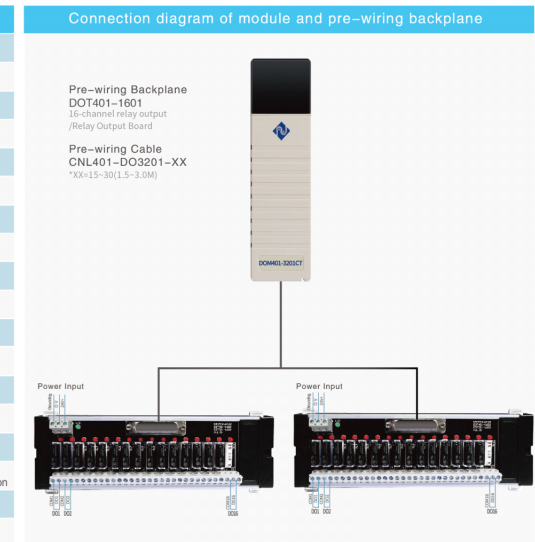
## DIM401-3201CT Connection mode of module and pre-wiring backplane

DIM401-3201CT		
Power	Backplane bus	35-70mA
	Power consumption	2.2W
Input channels	Input channels	32
	Channel per group	16
Signal input type	Input type	sink
Signal input voltage	Rating	24VDC
	"0" signal	-30~5V
	"1" signal	11~30V
Input current "1"	Input current	6mA
Max input delay	"0" ~ "1"	0.5mA
	"1" ~ "0"	0.5mA
Diagnostic supporting	Diagnostic supporting	✓
Input filtering	Input filtering	✓
Insulation testing	Insulation testing	500VDC
Quarantine	Channels	✓
	Channel and backplane	optoelectronic isolation
Weight (g)	Weight (g)	400
Length*Width*Height (mm)	Length*Width*Height (mm)	162x40x145



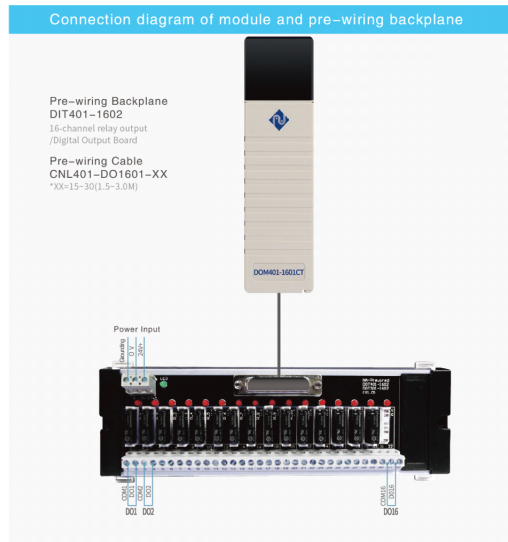
## DOM401-3201CT Connection mode of module and pre-wiring backplane

DOM401-3201CT		
Power	Backplane bus	35-70mA
	Power consumption	3.2W
Digital Output	Input channels	32
	channels per group	16
	Output Type	Transistor
	Short-circuit Protection	✓
Output voltage	"1" signal	24VDC
Output current	"1" Signal rating	0.5A
	Minimum allowable value in 0~40° C Maximum allowed value in 0~40° C	5mA 0.6A
Switching frequency	Resistive loading	100Hz
	Inductive loading	0.5Hz
Self diagnosis loading	Self diagnosis loading	✓
Insulation Testing	Insulation Testing	500VDC
Isolation	Channel to channel	✓
	Between channel and backplane	optoelectronic isolation
Weight (g)	Weight (g)	350
Length*Width*Height (mm)	Length*Width*Height (mm)	162x40x145



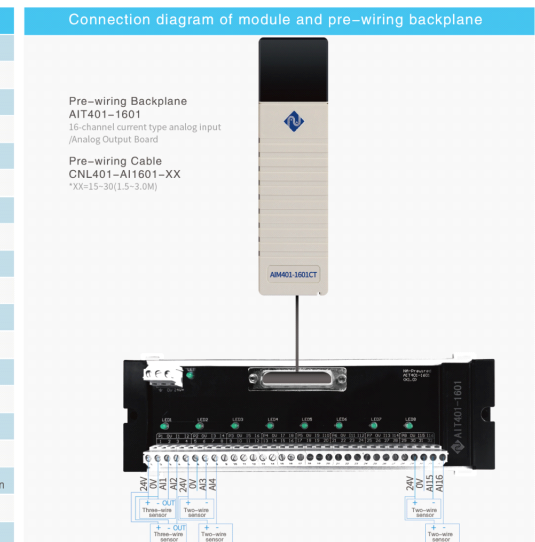
## DIM401-1601CT Connection mode of module and pre-wiring backplane

DIM401-1601CT		
Power	Backplane bus	35-70mA
	Power consumption	2.8W
Digital Output	Input channels	18
	channels per group	8
	Output Type	Transistor
	Short-circuit Protection	✓
Output voltage	"1" signal	24VDC
Output current	"1" Signal rating	0.5A
	Minimum allowable value in 0~40° C Maximum allowed value in 0~40° C	5mA 0.6A
Switching frequency	Resistive loading	100Hz
	Inductive loading	0.5Hz
Self diagnosis loading	Self diagnosis loading	✓
Insulation Testing	Insulation Testing	500VDC
Isolation	Channel to channel	✓
	Between channel and backplane	optoelectronic isolation
Weight (g)	Weight (g)	300
Length*Width*Height (mm)	Length*Width*Height (mm)	162x40x145



## AIM401-1601CT Connection mode of module and pre-wiring backplane

AIM401-1601CT		
Power	Backplane bus	35-70mA
	Power consumption	2.6W
Analog input	Input type	Single-ended
	Maximum input value	25mA
Input scope	0-10mA, 0-20mA, 4-20mA	✓
	-5V, 1-5V	-
	-5V, 0-10V, -10-10V	-
Analog value type	A/D bit(s)	16
	Convert time	1ms/per channel
Error precision	Error precision	0.1%
Sensor	Two-wired	✓
	Four-wired	✓
Self diagnosis function	Self diagnosis function	✓
Insulation testing	Insulation testing	500VDC
Isolation	Channel to channel	✓
	Between channel and backboard	optoelectronic isolation
Weight (g)	Weight (g)	350
Length*Width*Height (mm)	Length*Width*Height (mm)	162x40x145



## Quick selection table

Module Name	Module Type	Description
NA400 CPU Modules	CPU401-0221	Standard CPU,build-in 2 RS232(standard Modbus),1 Ethernet port(standard Modbus/TCP),Program space 1M
	CPU401-0331	Ultra-performance CPU,build-in 2 RS 485 (standard Modbus),1 Ethernet port(standard Modbus/TCP), Program space 1.6M
	CPU401-0431	Ultra-performance CPU,build-in 2 RS 485 (standard Modbus), 2 Ethernet port(standard Modbus/TCP), Program space 1.6M
	CPU401-0531	Ultra-performance CPU,build-in 2 RS 485 (standard Modbus),1 Ethernet port(standard Modbus/TCP), Program space 3.2M
NA400 Digital Input Modules	DIM401-1601	Digital DC input module, 16 points input 24VDC(sink)
	DIM401-1602	Digital DC input module, 16 points input 24VDC(source)
	DIM401-1603	Digital AC input module, 16 points input 220VAC
	DIM401-3201	Digital DC input module, 32 points input 24VDC(sink)
	DIM401-3202	Digital DC input module, 32points input 24VDC(source)
NA400 Digital Output Modules	DOM401-1601	Digital DC output module, 16 points output 24VDC transistor
	DOM401-1602	Digital DC output module, 16 points output relay(5A),support 36 terminal connection mode
	DOM401-3201	Digital DC output module, 32 points output 24VDC transistor
NA400 SOE Modules	IIM401-1601	Resolution of sequential events logging 1ms,16 points input 24VDC(sink)
	IIM401-1612	Resolution of sequential events logging 1ms,16 points input 24VDC(source)
	IIM401-3201	Resolution of sequential events logging 1ms,32 points input 24VDC(sink)
	IIM401-3212	Resolution of sequential events logging 1ms,32 points input 24VDC(source)
NA400 Analog Input Modules	AIM401-0801	Analog input module,8 channels,4-20mA,single-end
	AIM401-1601	Analog input module,16 channels,4-20mA,single-end
	AIM401-0802	Analog input module,8 channels,current/voltage,single-end input
	AIM401-0803	Analog input module,8 channels,voltage,single-end input
	AIM401-1603	Analog input module,16 channels,voltage,single-end input
	AIM401-0404	Analog input module,4 channels,current/voltage,Differential input
	AIM401-0804	Analog input module,8 channels,current/voltage,Differential input
	AIM401-0805	RTD input module, 8 channels
AIM401-0806	Thermocouple input module,8 channels	
NA400 Analog Output Modules	AOM401-0401	Analog output module, 4 channels, 4-20mA
	AOM401-0402	Analog output module, 4 channels
	AOM401-0802	Analog output module, 8 channels
NA400 Pulse Input Modules	PIM401-0801	pulse count module,8 channels (sink),<100Hz
	PIM401-0802	pulse count module,8 channels (source),<100Hz
NA400 High Speed Counting Modules	HCM401-0302	pulse count module,8 channels (source),<100Hz
	HCM401-0801	High speed counting module,8 channels(8*100khz)
	HCM401-0811	High speed counting module( Remote station),8 channels(8*100khz)
NA400 Communication Modules	CMM401-0411	4 x RS485,standard Modbus RTU Agreement master
	CMM401-0102	Profibus DP Master
	CMM401-0103	Profibus DP Slave
	CMM401-0113	Profibus DP Slave
	CMM401-0104	CANOPEN Master
	CMM401-0205	2 Ethernet ports,MODBUS TCP
	CMM401-0214	2 CAN interfaces, Self-defined Protocol
CMM401-0106	DeviceNet Master	

Module Name	Module Type	Description
NA400 Power-supply Modules	PWM401-0501	Input 24VDC,Power: 50W
	PWM401-0502	Input 220VAC,Power: 50W
	PWM401-0503	Input 24VDC,Power: 50W N+1
	PWM401-0504	Input 24VDC,Power: 50W N+1
	PWM401-0801	Input 24VDC,Power: 80W
	PWM401-0802	Input 220VAC,Power: 80W
	PWM401-1001	input 24VDC, Power:100W
	PWM401-1002	input 220VAC, Power:100W

Accessories	Module Type	Description
NA400 Backplane	BKM401-0601	6 slot backplane
	BKM401-0901	9 slot backplane
	BKM401-1201	12 slot backplane
	BKM401-1501	15 slot backplane
NA400 I/O Module Terminal	CNE401-0101	Module connecting terminal
NA400 Communication Module Extension Cable	CNL401-0101	Extension cable of communication module(4*RS485),1m
	CNL401-0203	Extension cable of communication module(4*RS485),1m
NA400 Bus Extension Cable	CNL401-0102	Bus extension cable,1m
	CNL401-0202	Bus extension cable,2m
	CNL401-0302	Bus extension cable,3m
NA400 CPU Hot standby Redundant Cable	CNL401-0104	CPU Hot standby redundant cable
	CNL401-0204	CPU Hot standby redundant cable(0501H/0601CPU)
	CNL401-0214	CPU Hot standby redundant cable(0601 port)
NA400 Empty Slot Module	NUL401-0101	Empty slot module
NA400 Bus Adapter	BUS401-0101	Bus adapter