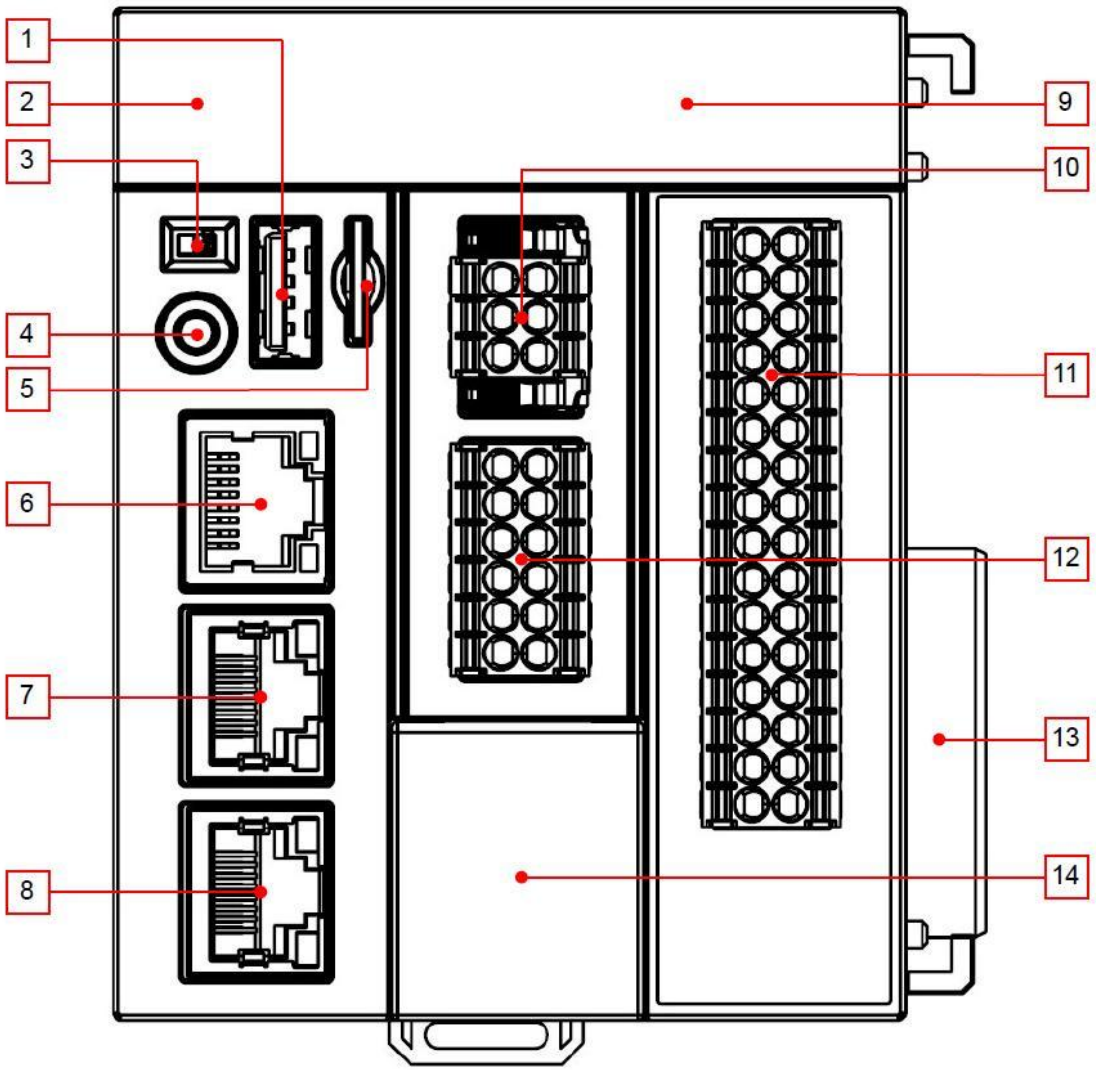
PX100-21N00 / PX100-21N01 / PX100P-21N00 / PX100P-21N01

Controller Interface View



1. USB
2. Digital Tube Indication
3. RUN/STOP Switch
4. FUNC Function Button
5. MicroSD Card Slot
6. EtherCAT Port
7. Ethernet1 Port
8. Ethernet2 Port
9. LED Indicator Display
10. CPU Power Supply
11. Local IO Terminal
12. RS232/RS485/CAN Port
13. Backplane Bus Interface
14. Battery Interface

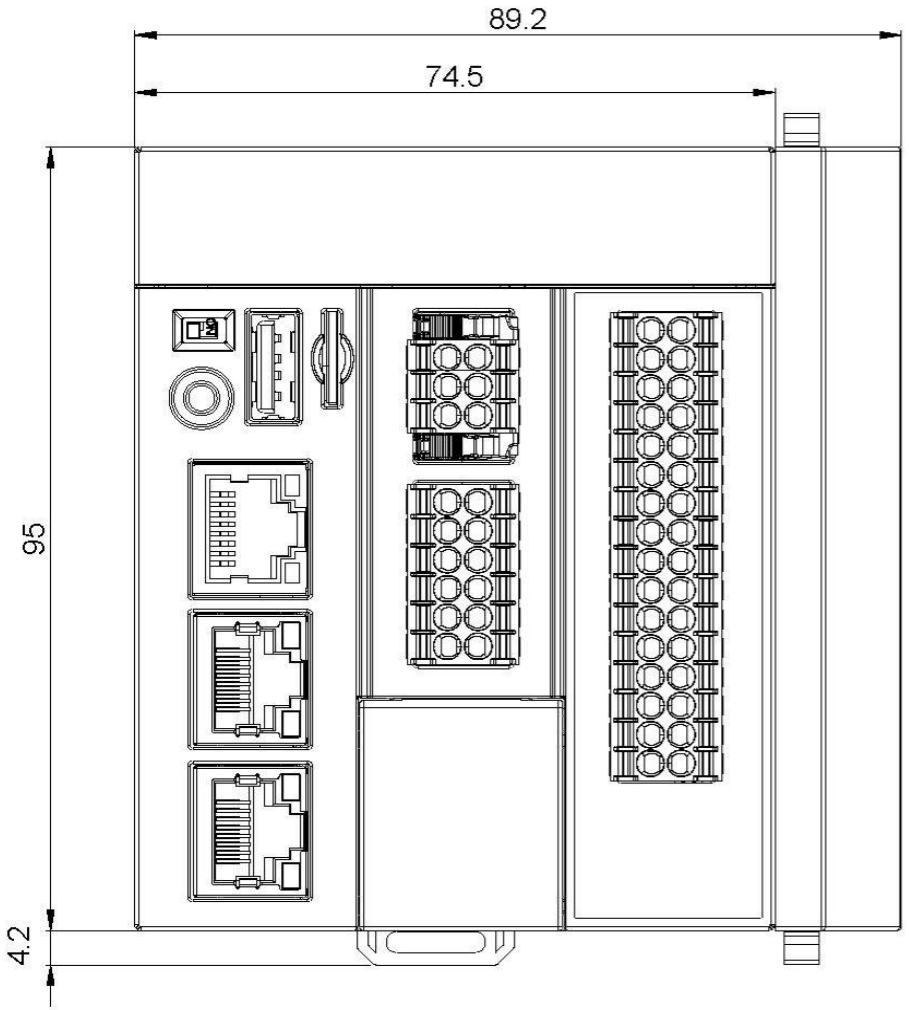
PX100-21N00 / PX100-21N01 / PX100P-21N00 / PX100P-21N01

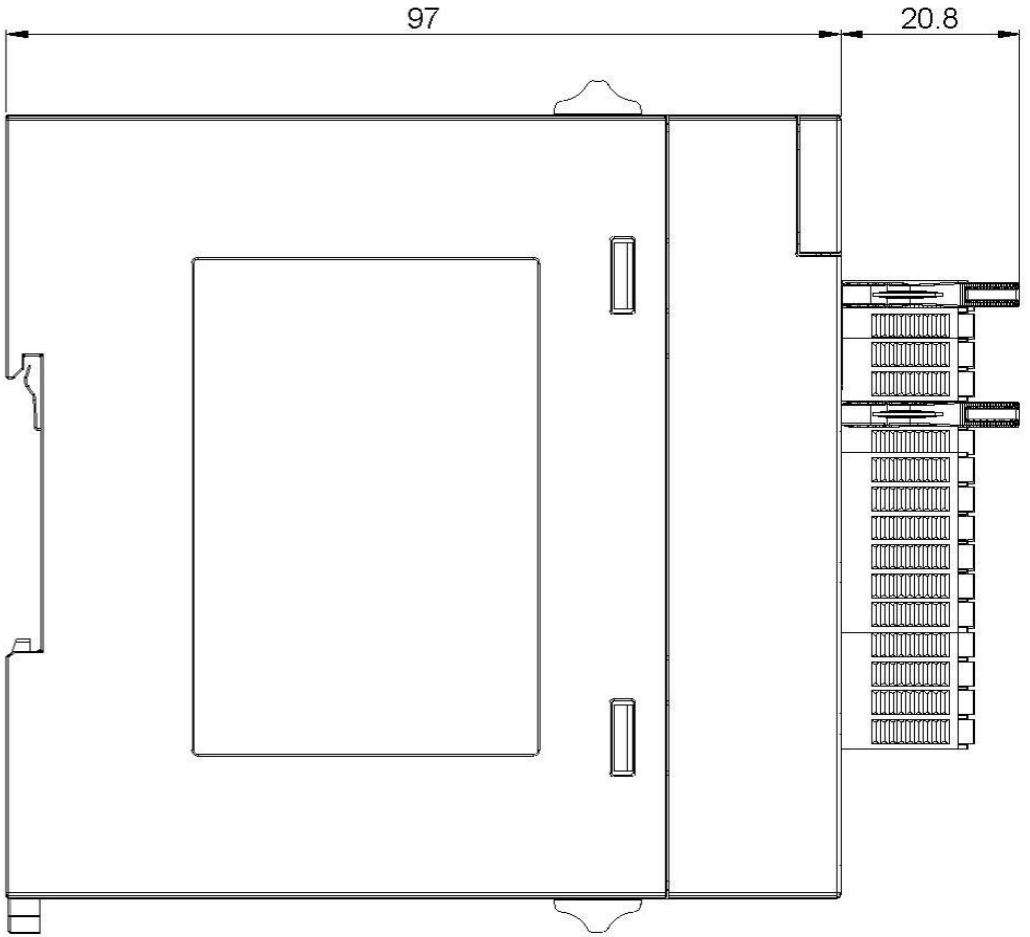
Interface Defination

Number	Interface Name	Description
1	USB	On-site maintenance and debugging (other functions can be customized according to users' needs, such as USB expansion network card, USB Wifi module, USB authorization module, etc.)
2	Digital Tube Indication	Display operation status and fault information
3	Run/Stop Switch	Program RUN/STOP switch
4	FUNC Function Button	Multifunctional key
5	MicroSD Card Slot	It can be extended to 32G MicroSD card, which is used for firmware update, application and data storage (not open to the public).
6	EtherCAT Port	1*100M/1000Mbps(EtherCAT) adaptive Ethernet interface Support EtherCAT protocol.
7 - 8	Ethernet 1 / 2 Port	2*independent 10/100Mbps(EtherNET1/ EtherNET2), EtherNET 1:192.168.1.92, EtherNET 2:192.168.2.92. Support Ethernet(Modbus TCP) protocol.
9	LED Indication Display	Inputs & Output Status LED
10	CPU Power Supply	24VDC power input of CPU (CN4)
11	Local IO Terminal	Local IO I/O wiring (CN6)
12	RS232/RS485/Can Port	RS232/RS485 interface, supporting Modbus protocol. CAN interface, supporting CANopen protocol. Standard 1 RS232, 2 RS485 and 1 CAN (CN5)
13	BackPlane Bus Interface	Up to 8 IO modules can be expanded when adapting to PX series IO.
14	Battery Interface	Battery Interface For Real Time Clock Purpose Only

PX100-21N00 / PX100-21N01 / PX100P-21N00 / PX100P-21N01

Controller Dimension





PX100-21N00 / PX100-21N01 / PX100P-21N00 / PX100P-21N01

LED Status Defination

Indicator Light	Function	Meaning
PWR	Power supply Indication	On : Normal Power Supply. Off : There Is No Power Supply.
RUN	Program Running Indicator	On : The Program Run Normally. Off : The Program Has Stops.
ERR	Error Indicator	On : Error. Blick : The Program Is Abnormal. Off : No Error, Normal.
0...15 0...7	0 - 15 Is DI0-15(Digital Input) 0 - 7 Is DO0-7(Digital Output)	On : The Channel Has Input/Output Off : The Channel Has No Input/Output

Digital Tube Indication Description

Digital Tube Status Display	Meaning	Debug
C1	EtherCAT slave ECAT communication error	Check whether the hardware link of the slave station is connected normally. After locking the wrong slave station, you can check the error information of the digital tube on the slave station to analyze the specific error.
C3	EtherCAT slave fault	1.Check whether the EtherCAT slave station is faulty; 2.Check whether the network cable is connected normally; 3.The controller networking configuration is inconsistent with the actual networking.
C4	CAN master station error	Check CANopen manager
C5	CAN slave error	Check CANopen local device
C6	Ethernet/IP local adapter communication error.	Check whether the IP of the network adapter is correct
C7	Ethernet/IP module communication error	Check whether the EDS file of the remote module is correct.
C8	Local IO module failure	1.Check whether the module configuration is consistent with the actual situation. 2.Check the module for communication errors.
C9	Backplane bus fault	See the error ID of the master station for details.
5A	PLC program stop	The PLC program is in a stopped state, waiting to be started.
5B	Abnormal PLC program	Check whether the program is divided by zero or null pointer, etc.
00	The PLC program runs normally.	-

Digital Tube Indication Description

Digital Tube Status Display	Meaning	Debug
R0	There is no PLC program	1. Check whether dip switch is in the "RUN" position. 2. You need to download the program.
E0	Program scheduling exception	Check whether the program is overloaded, and if it is overloaded, increase the task cycle.
E1	Controller not activated.	Please contact Manufacturer.
E2	EtheCAT does not match the model	The number of EtherCAT axes is out of the range specified by the controller model.
SS	UPS trigger.	Power-down signal detected
H0	CPU0 load display	The load of CPU0 exceeds 80%, which may be risky. Please check the program and reasonable task configuration.
H1	CPU1 load display	The load of CPU1 exceeds 80%, which may be risky. Please check the program and reasonable task configuration.
H2	CPU2 load display	The load of CPU2 exceeds 80%, which may be risky. Please check the program and reasonable task configuration.
H3	CPU3 load display	The load of CPU3 exceeds 80%, which may be risky. Please check the program and reasonable task configuration.

FUNC Function Key Operation

When dip switch dials RUN, press the multifunction button to display IP.
When dip switch dials STOP, press the multifunction button to enter the menu, and long press to execute the corresponding function.

P0: IP is restored to factory settings.
P1: Import user programs

After the offline program is generated by CODESYS project, put the Application.app and Application.crc files in the newly-built Application folder, and then put the Application folder in the root directory of the U disk.

P2-P6: Reservation.
P7: Upgrade the firmware

just put the file with the. des suffix provided by the supplier in the root directory of the U disk, and it will automatically restart after the upgrade;

P8: Delete user program.
P9: Delete program user.
Pa: Restore factory settings (IP reset, clear application, user configuration, etc.)

After the factory settings are restored, the system will automatically restart, and the network information is:

EtherNET1: IP 192.168.1.92 | Mask 255.255.255.0 | Gateway 192.168.1.1
EtherNET2: IP 192.168.2.92 | Mask 255.255.255.0 | Gateway 192.168.2.1
EtherCAT: IP 192.168.0.92 | Mask 255.255.255.0 | Gateway 192.168.0.1

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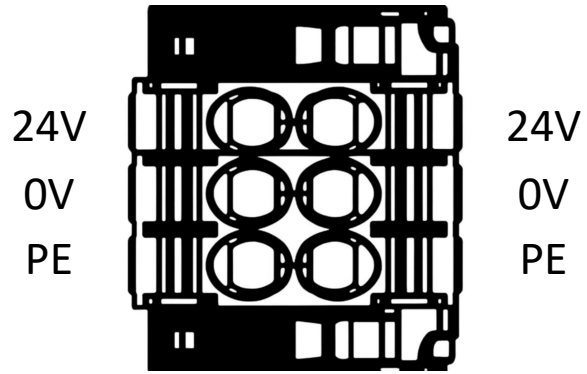
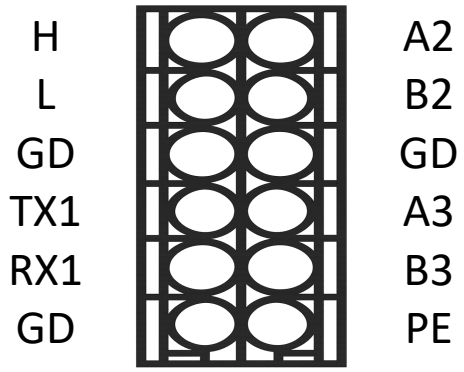
Power Supply Connector CN4



CN4

Pin	Description	Pin	Description
24V	24V DC input	24V	24V DC output
0V	DC input ground	0V	DC output ground
PE	Protective grounding	PE	Protective grounding

Communication Connector CN5

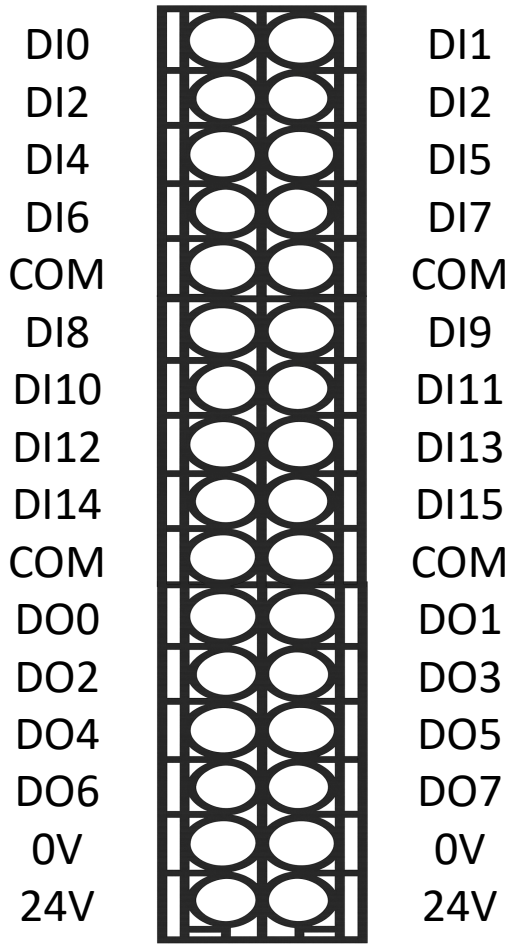


CN5

Pin	Description	Pin	Description
H	High potential signal of CAN0	A2	COM2,RS485 positive terminal
L	Low potential signal of CAN0	B2	COM2,RS485 negative terminal
GD	CAN0 ground	GD	RS485 ground
TX1	COM1,RS232 transmitter	A3	COM3,RS485 positive terminal
RX1	COM1,RS232 receiver	B3	COM3,RS485 negative terminal
GD	RS232 ground	PE	Protective grounding

Inputs & Outputs Connector CN6

Pin	Function	Pin	Function
DI0	Input (IN0)	DI1	Input (IN1)
DI2	Input (IN2)	DI3	Input (IN3)
DI4	Input (IN4)	DI5	Input (IN5)
DI6	Input (IN6)	DI7	Input (IN7)
COM	Input common terminal (DI0, DI2, DI4, DI6)	COM	Input common terminal (DI1, DI3, DI5, DI7)
DI8	Input (IN8)	DI9	Input (IN9)
DI10	Input (IN12)	DI11	Input (IN11)
DI12	Input (IN14)	DI13	Input (IN13)
DI14	Input (IN16)	DI15	Input (IN15)
COM	Input common terminal (DI8, DI10, DI12, DI14)	COM	Input common terminal (DI9, DI11, DI13, DI15)
DO0	0V output (OUT0)	DO1	0V output (OUT1)
DO2	0V output (OUT2)	DO3	0V output (OUT3)
DO4	0V output (OUT4)	DO5	0V output (OUT5)
DO6	0V output (OUT6)	DO7	0V output (OUT7)
0V	Output common terminal (connect to 0V)	0V	Output common terminal (connect to 0V)
24V	Output common terminal (connect to 24V)	24V	Output common terminal (connect to 24V)



CN6