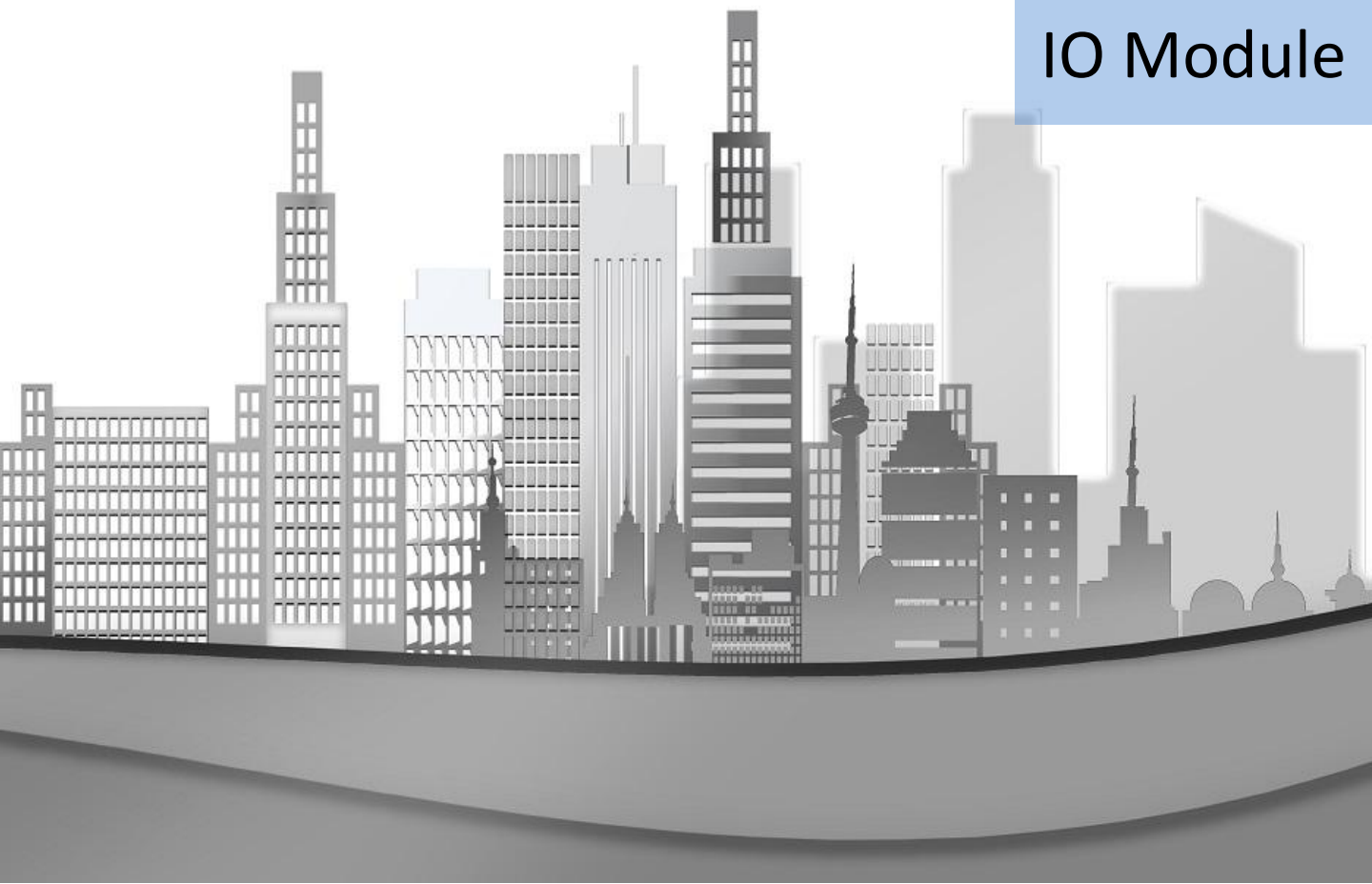




IO Module



FUKA help industrial automation to achieve seamless integration, interconnection, interoperability.

IO Module		
1	F-IOM12682	3
2	F-IOM16800	7
3	F-IOM8400	11
4	F-N8400	14
5	F-N6442	17

Product Model	BI/DI	BO/DO	AI	AO
F-IOM12682	12	6	8	2
F-IOM16800	16	8	0	0
F-IOM8400	8	4	0	0
F-N8400	8	4	0	0
F-N6442	6	4	4	2

IO Module Product Model:F-IOM12682

Overview:

This product uses the mainstream ARM kernel 32 bit microprocessor, Modbus RTU and BACnet MS/TP supports two protocols (choose one), can realize the rapid expansion of I/O module controller.

Protocol specification:

- 1. Modbus support RTU protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the Modbus RTU test tools.
- 2. BACnet support MS/TP protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the BACnet MS/TP test tools.

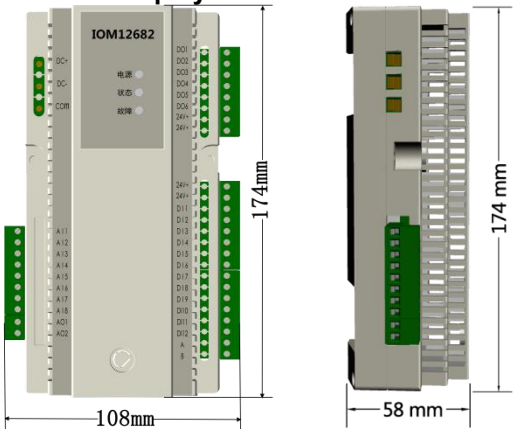
Main Parameter:

Processor	32 bit
Clock Frequency	72MHZ
Memory	64KB flash, 20KB random access memory
Power Supply	DC/AC 24V
Communication	Modbus RTU(2.4k/4.8k/9.6k/19.2k) BACnet MS/TP(9.6k/19.2k/38.4k/76.8k)
Digital Input	Support dry contact input
Digital Output	Support 24VDC <3A
Analog Input	12 bit resolution, support 0-10V, 0-20mA input
Analog Output	10 bit resolution, support 0-10V, 0-20mA output

Model specification:

Product Model	BI/DI	BO/DO	AI	AO
F-IOM12682	12	6	8	2

Product display:



Size/mm: 174*108*58(L*W*H)

Weight/g: 300

Material: plastic shell

Installation method: rail type installation

IO Module Product Model:F-IOM12682

Register definition specification:

1.Modbus RTU corresponding register

BI/DI---Input Status(0x02)

BI/DI Register Address	BI/DI	instruction
10001	1	Digital input port
10002	2	Digital input port
10003	3	Digital input port
10004	4	Digital input port
10005	5	Digital input port
10006	6	Digital input port
10007	7	Digital input port
10008	8	Digital input port
10009	9	Digital input port
10010	10	Digital input port
10011	11	Digital input port
10012	12	Digital input port

2. BACnet MS/TP corresponding register

BI/DI

BI/DI Register Address	BI/DI	instruction
0	1	Digital input port
1	2	Digital input port
2	3	Digital input port
3	4	Digital input port
4	5	Digital input port
5	6	Digital input port
6	7	Digital input port
7	8	Digital input port
8	9	Digital input port
9	10	Digital input port
10	11	Digital input port
11	12	Digital input port

BO/DO—Coil Status(0x01/0x05)

BO/DO Register Address	BO/DO	instruction
00001	1	Digital output port
00002	2	Digital output port
00003	3	Digital output port
00004	4	Digital output port
00005	5	Digital output port
00006	6	Digital output port

BO/DO

BO/DO Register Address	BO/DO	instruction
0	1	Digital output port
1	2	Digital output port
2	3	Digital output port
3	4	Digital output port
4	5	Digital output port
5	6	Digital output port

F-IOM12682

F-IOM16800

F-IOM8400

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model:F-IOM12682

1.Modbus RTU corresponding register

AI---Input Register(0x04)

AI Register Address	AI port	Instruction
30001	1	Analog input port
30002	2	Analog input port
30003	3	Analog input port
30004	4	Analog input port
30005	5	Analog input port
30006	6	Analog input port
30007	7	Analog input port
30008	8	Analog input port

AO---Holding Register(0x03/0x06)

AO Register Address	AO port	Instruction
40001	--	Device address 1 (1-127)
40002	--	baud rate 9600 (19200/9600/4800/2400)
40003	--	Parity bit without (0- no /1- odd /2- even)
40011	1	Analog output port
40012	2	Analog output port

2. BACnet MS/TP corresponding register

AI

AI Register Address	AI port	Instruction
0	1	Analog input port
1	2	Analog input port
2	3	Analog input port
3	4	Analog input port
4	5	Analog input port
5	6	Analog input port
6	7	Analog input port
7	8	Analog input port

AO

AO Register Address	AO port	Instruction
0	1	Analog output port
1	2	Analog output port

AV

AV Register Address	AV port	Instruction
0	--	baud rate 38400 (76800/38400/19200/9600)

IO Module Product Model:F-IOM12682

Common Question

1.ModbusRTU common question:

Q① : What is the default communication parameter for the module?

A ① : ModbusRTU module default communication parameters are baud rate 9600, data bit 8, stop bit 1, no checksum, device default ID number is 1.

Q ② : How to modify the communication parameters of the module?

A② : The use of third party software tool ModbusPoll, the control of the 3 register definition Instruction "section 40001, 40002, 40003, read three register data sequentially represents the device address, baud rate, parity check, modify according to" Instruction ", a list of parameters, communication module. After the power is restarted, the set parameters become effective.

2.BACnet MSTP common question:

Q① : What is the default communication parameter for the module?

A ① : BACnet MSTP module default communication parameters are baud rate 38400, data bit 8, stop bit 1, no checksum, device default ID number is 1.

Q ② : How to modify the device number (i.e. address) of the module?

A②: Computer connected to the module of A, B port through the USB 485 communication lines, using BACnetScan tool to scan the module point, right click on the name of " (Device, 1) ", select " 修改设备ID... ", you can modify the module device number (i.e., address).

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model:F-IOM16800

Overview:

This product uses the mainstream ARM kernel 32 bit microprocessor, Modbus RTU and BACnet MS/TP supports two protocols (choose one), can realize the rapid expansion of I/O module controller.

Protocol specification:

- 1. Modbus support RTU protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the Modbus RTU test tools.
- 2. BACnet support MS/TP protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the BACnet MS/TP test tools.

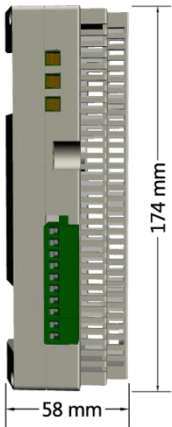
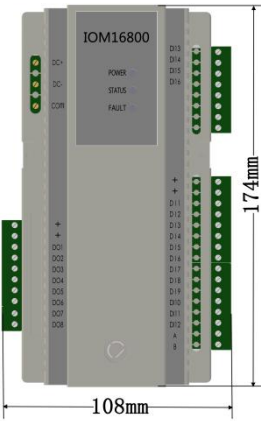
Main Parameter:

Processor	32 bit
Clock Frequency	72MHZ
Memory	64KB flash, 20KB random access memory
Power Supply	DC/AC 24V
Communication	Modbus RTU(2.4k/4.8k/9.6k/19.2k) BACnet MS/TP(9.6k/19.2k/38.4k/76.8k)
Digital Input	Support dry contact input
Digital Output	Support 24VDC <3A

Model Instruction:

Product Model	BI/DI	BO/DO	AI	AO
F-IOM16800	16	8	0	0

Product display:



Size/mm: 174*108*58(L*W*H)

Weight/g: 300

Material: plastic shell

Installation method: rail type installation

IO Module Product Model:IOM16800

Register definition specification:

1.Modbus RTU corresponding register

BI/DI---Input Status(0x02)

BI/DI Register Address	BI/DI	Instruction
10001	1	Digital input port
10002	2	Digital input port
10003	3	Digital input port
10004	4	Digital input port
10005	5	Digital input port
10006	6	Digital input port
10007	7	Digital input port
10008	8	Digital input port
10009	9	Digital input port
10010	10	Digital input port
10011	11	Digital input port
10012	12	Digital input port
10013	13	Digital input port
10014	14	Digital input port
10015	15	Digital input port
10016	16	Digital input port

2. BACnet MS/TP corresponding register

BI/DI

BI/DI Register Address	BI/DI	Instruction
0	1	Digital input port
1	2	Digital input port
2	3	Digital input port
3	4	Digital input port
4	5	Digital input port
5	6	Digital input port
6	7	Digital input port
7	8	Digital input port
8	9	Digital input port
9	10	Digital input port
10	11	Digital input port
11	12	Digital input port
12	13	Digital input port
13	14	Digital input port
14	15	Digital input port
15	16	Digital input port

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model:F-IOM16800

Register definition specification:

1.Modbus RTU corresponding register

BO/DO—Coil Status(0x01/0x05)

BO/DO Register Address	BO/DO port	Instruction
00001	1	Digital output port
00002	2	Digital output port
00003	3	Digital output port
00004	4	Digital output port
00005	5	Digital output port
00006	6	Digital output port
00007	7	Digital output port
00008	8	Digital output port

AO---Holding Register(0x03/0x06)

AO Register Address	AO port	Instruction
40001	--	Device address 1 (1-127)
40002	--	baud rate 9600 (19200/9600/4800/2 400)
40003	--	Parity bit free (0- no /1- odd /2- pairs)

2. BACnet MS/TP corresponding register

BO/DO

BO/DO Register Address	BO/DO port	Instruction
0	1	Digital output port
1	2	Digital output port
2	3	Digital output port
3	4	Digital output port
4	5	Digital output port
5	6	Digital output port
6	7	Digital output port
7	8	Digital output port

AV

AV Register Address	AV port	Instruction
0	--	baud rate 38400 (76800/38400/192 00/9600)

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model:F-IOM16800

Common Question

1.ModbusRTU common question:

Q① : What is the default communication parameter for the module?

A ① : ModbusRTU module default communication parameters are baud rate 9600, data bit 8, stop bit 1, no checksum, device default ID number is 1.

Q ② : How to modify the communication parameters of the module?

A② : The use of third party software tool ModbusPoll, the control of the 3 register definition Instruction "section 40001, 40002, 40003, read three register data sequentially represents the device address, baud rate, parity check, modify according to" Instruction ", a list of parameters, communication module. After the power is restarted, the set parameters become effective.

2.BACnet MSTP common question:

Q① : What is the default communication parameter for the module?

A ① : BACnet MSTP module default communication parameters are baud rate 38400, data bit 8, stop bit 1, no checksum, device default ID number is 1.

Q ② : How to modify the device number (i.e. address) of the module?

A②: Computer connected to the module of A, B port through the USB 485 communication lines, using BACnetScan tool to scan the module point, right click on the name of " (Device, 1) ", select "  ", you can modify the module device number (i.e., address).

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model:F-IOM8400

Overview:

This product uses the mainstream ARM kernel 32 bit microprocessor, Modbus RTU and BACnet MS/TP supports two protocols (choose one), can realize the rapid expansion of I/O module controller.

Protocol specification:

- 1. Modbus support RTU protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the Modbus RTU test tools.
- 2. BACnet support MS/TP protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the BACnet MS/TP test tools.

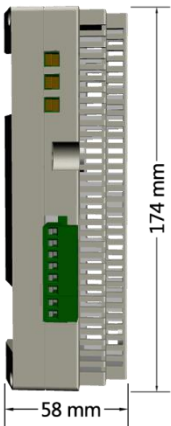
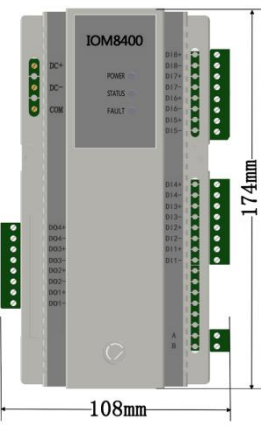
Main Parameter:

Processor	32 bit
Clock Frequency	72MHZ
Memory	64KB flash, 20KB random access memory
Power Supply	DC/AC 24V
Communication	Modbus RTU(2.4k/4.8k/9.6k/19.2k) BACnet MS/TP(9.6k/19.2k/38.4k/76.8k)
Digital Input	Support dry contact input
Digital Output	Support 24VDC <3A

Model Instruction:

Product Model	BI/DI	BO/DO	AI	AO
F-IOM8400	8	4	0	0

Product display:



Size/mm: 174*108*58(L*W*H)

Weight/g: 300

Material: plastic shell

Installation method: rail type installation

Register definition specification:

1.Modbus RTU corresponding register

BI/DI---Input Status(0x02)

BI/DI Register Address	BI/DI	Instruction
10001	1	Digital input port
10002	2	Digital input port
10003	3	Digital input port
10004	4	Digital input port
10005	5	Digital input port
10006	6	Digital input port
10007	7	Digital input port
10008	8	Digital input port

BO/DO—Coil Status(0x01/0x05)

BO/DO Register Address	BO/DO port	Instruction
00001	1	Digital output port
00002	2	Digital output port
00003	3	Digital output port
00004	4	Digital output port

AO---Holding Register(0x03/0x06)

AO Register Address	AO port	Instruction
40001	--	Device address 1 (1-127)
40002	--	baud rate 9600 (19200/9600/4800/24 00)
40003	--	Parity bit free (0- no /1- odd /2- pairs)

2. BACnet MS/TP corresponding register

BI/DI

BI/DI Register Address	BI/DI	Instruction
0	1	Digital input port
1	2	Digital input port
2	3	Digital input port
3	4	Digital input port
4	5	Digital input port
5	6	Digital input port
6	7	Digital input port
7	8	Digital input port

BO/DO

BO/DO Register Address	BO/DO port	Instruction
0	1	Digital output port
1	2	Digital output port
2	3	Digital output port
3	4	Digital output port

AV

AVRegister Address	AO port	Instruction
0	--	baud rate 38400 (76800/38400/192 00/9600)

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

Common Question

1.ModbusRTU common question:

Q① : What is the default communication parameter for the module?

A ① : ModbusRTU module default communication parameters are baud rate 9600, data bit 8, stop bit 1, no checksum, device default ID number is 1.

Q ② : How to modify the communication parameters of the module?

A② : The use of third party software tool ModbusPoll, the control of the 3 register definition Instruction "section 40001, 40002, 40003, read three register data sequentially represents the device address, baud rate, parity check, modify according to" Instruction ", a list of parameters, communication module. After the power is restarted, the set parameters become effective.

Q③:How to modify the device ID?

A③:The hardware: toggle internal paddles.

Toggle No.	1	2	3	4	5	6	7	8
Device ID	1	2	4	8	16	32	64	128

Toggle No.	12	123	1234	12345	123456	1234567
Device ID	3	7	15	31	63	127

2.BACnet MSTP common question:

Q① : What is the default communication parameter for the module?

A ① : BACnet MSTP module default communication parameters are baud rate 38400, data bit 8, stop bit 1, no checksum, device default ID number is 1.

Q ② :How to modify the device ID (i.e., address)?

A ② :The hardware: toggle internal paddles.

Toggle No.	1	2	3	4	5	6	7	8
Device ID	1	2	4	8	16	32	64	0

Toggle No.	12	123	1234	12345	123456	1234567
Device ID	3	7	15	31	63	127

IO Module Product Model: F-N8400

Overview:

This product uses the mainstream ARM kernel 32 bit microprocessor, Modbus TCP and UDP supports two protocols (choose one), can realize the rapid expansion of I/O module controller.

Protocol specification:

Modbus support Modbus TCP/UDP protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the Modbus RTU test tools.

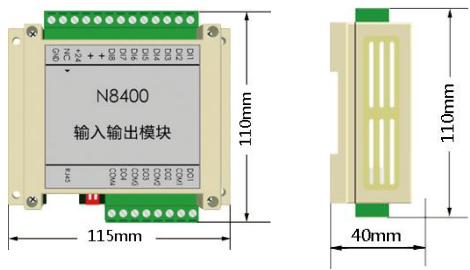
Main Parameter:

Processor	32 bit
Clock Frequency	72MHZ
Memory	64KB flash, 20KB random access memory
Power Supply	DC/AC 24V
Communication	Modbus TCP 10/100M Modbus UDP 10/100M
Digital Input	Support dry contact input
Digital Output	Support 24V AC/DC ≤3A

Model Instruction:

Product Model	BI/DI	BO/DO	AI	AO
N8400	8	4	0	0

Product display:



Size/mm: 145*110*40 (L*W*H)

Weight/g: 150

Material: plastic shell

Installation method: rail type installation

IO Module Product Model: F-N8400

Register definition specification:
1.Modbus TCP/UDP corresponding register

BI/DI---Input Status(0x02)

BI/DI Register Address	BI/DI	Instruction
10001	1	Digital input port
10002	2	Digital input port
10003	3	Digital input port
10004	4	Digital input port
10005	5	Digital input port
10006	6	Digital input port
10007	7	Digital input port
10008	8	Digital input port

BO/DO—Coil Status(0x01/0x05)

BO/DO Register Address	BO/DO port	Instruction
00001	1	Digital output port
00002	2	Digital output port
00003	3	Digital output port
00004	4	Digital output port

IO Module Product Model: F-N8400**Common Question****1.ModbusTCP common question:**

Q① : What is the default communication parameter for the module?

A ① : The default IP of ModbusTCP module is 192.168.1.88, port number 502.

Q ② : How to modify the module's IP address?

A② : In the browser input module IP enters the backstage web page to modify IP.

Configure network parameters

Firmware version number: 1.0

MAC address: 00:08:DC:11:11:11

IP address: 192.168.1.100

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.1

Save and restart

Q③: If forgot IP , how to restore IP?

A③: In the case of power supply, dial the red dial key 2 to NO and reset, then restart after power failure. IP will revert to the default factory IP.

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model: F-N6442

Overview:

This product uses the mainstream ARM kernel 32 bit microprocessor, Modbus TCP and UDP supports two protocols (choose one), can realize the rapid expansion of I/O module controller.

Protocol specification:

Modbus support Modbus TCP/UDP protocol, can quickly realize the controller with the support of the implementation of the protocol of network connection, fast I/O port expansion. Please refer to the specific use of the Modbus RTU test tools.

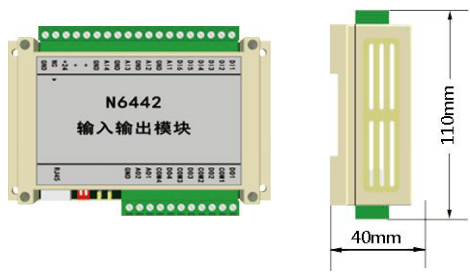
Main Parameter:

Processor	32 bit
Clock Frequency	72MHZ
Memory	64KB flash, 20KB random access memory
Power Supply	DC/AC 24V
Communication	Modbus TCP 10/100M Modbus UDP 10/100M
Digital Input	Support dry contact input
Digital Output	Support 24V AC/DC ≤3A
Analog Input	12 bit resolution, support 0-10V, 4-20mA input and NTC10K (B=3950) input
Analog Output	10 bit resolution, support 0-10V, 4-20mA output

Model Instruction:

Product Model	BI/DI	BO/DO	AI	AO
F-N6442	6	4	4	2

Product display:



Size/mm: 145*110*40 (L*W*H)

Weight/g: 200

Material: plastic shell

Installation method: rail type installation

IO Module Product Model: F-N6442

Register definition specification:
1.Modbus TCP/UDP corresponding register

BI/DI---Input Status(0x02)

BI/DI Register Address	BI/DI	Instruction
10001	1	Digital input port
10002	2	Digital input port
10003	3	Digital input port
10004	4	Digital input port
10005	5	Digital input port
10006	6	Digital input port

BO/DO---Coil Status(0x01/0x05)

BO/DO Register Address	BO/DO port	Instruction
00001	1	Digital output port
00002	2	Digital output port
00003	3	Digital output port
00004	4	Digital output port

AI---Input Register (0x04)

AI Register Address	AI Port	Instruction
30001	1	Analog input port
30002	2	Analog input port
30003	3	Analog input port
30004	4	Analog input port

A0---Holding Register (0x03/0x06)

A0 Register Address	A0 Port	Instruction
40001	1	Analog output port
40002	2	Analog output port

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

IO Module Product Model: F-N6442

F-IOM12682

F-IOM16800

F-IOM8400

F-N8400

F-N6442

Common Question

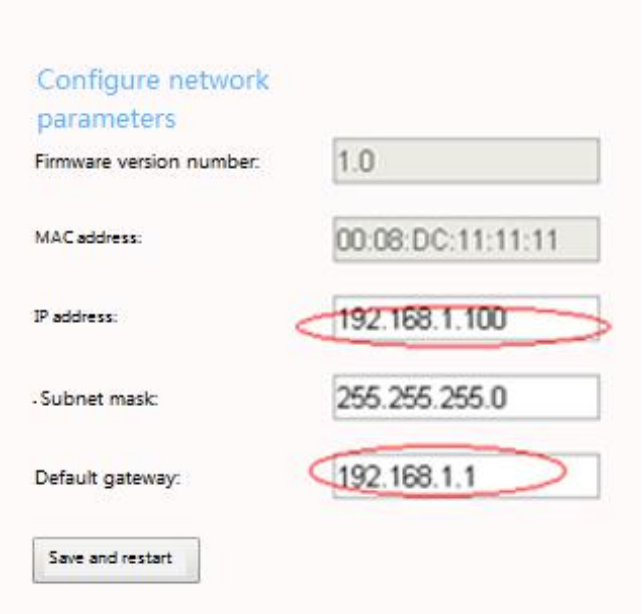
1.ModbusTCP common question:

Q① : What is the default communication parameter for the module?

A ① : The default IP of ModbusTCP module is 192.168.1.88, port number 502.

Q ② : How to modify the module's IP address?

A② : In the browser input module IP enters the backstage web page to modify IP.



Q③: If forgot IP , how to restore IP?

A③: In the case of power supply, dial the red dial key 2 to NO and reset, then restart after power failure. IP will revert to the default factory IP.

FUKA

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