

Installation Manual

1. Product parameters

This product adopts the mainstream ARM core 32-bit microprocessor, supports the BACnet MS/TP protocol, and can realize the rapid expansion of the Controller's I/O module. Processor: 32-bit, clock frequency: 72MHz

Flash: 64KB

RAM: 20KB

Power supply: DC 24 V

Communications: BACnet MS/TP (Default 38400、8、1、N)

DI: Dry contact input

DO: Support dry contact output, max. 220V / 8A

AI: 12 bit resolution, support 0-10V、4-20mA input (corresponding value 800~4000)

NTC10K(B=3950), Virtual dry contact input.

AO: 10 bit resolution, support 0-10V、4-20mA output(corresponding value 200~1000)

Note: Analog AI defaults to current signal and analog Ao defaults to voltage signal. If the access signal needs to be modified, the shell needs to be disassembled for frame skipping.

2. Model

	BI/DI	BO/DO	AI	AO
IOM12684	12	6	8	4

3. Register Definition

BI/DI

BI/DI Register address	BI/DI Port	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

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

AI

Current voltage mode AI Register address	NTC10K Resistance mode AI Register address	AI Port	Instruction
0	10	1	Analog input port
1	11	2	Analog input port
2	12	3	Analog input port
3	13	4	Analog input port
4	14	5	Analog input port
5	15	6	Analog input port
6	16	7	Analog input port
7	17	8	Analog input port

AO

AO Register address	AO Port	Instruction
0	1	Analog output port (Voltage mode)
1	2	Analog output port (Voltage mode)
2	3	Analog output port (Voltage mode)
3	4	Analog output port (Voltage mode)
4	1	Analog output port (Current mode)
5	2	Analog output port (Current mode)
6	3	Analog output port (Current mode)
7	4	Analog output port (Current mode)

AV

AV Register address	AO Port	Instruction
0		Baud rate 38400 (76800/38400/19200/9600)

4. Wiring instructions

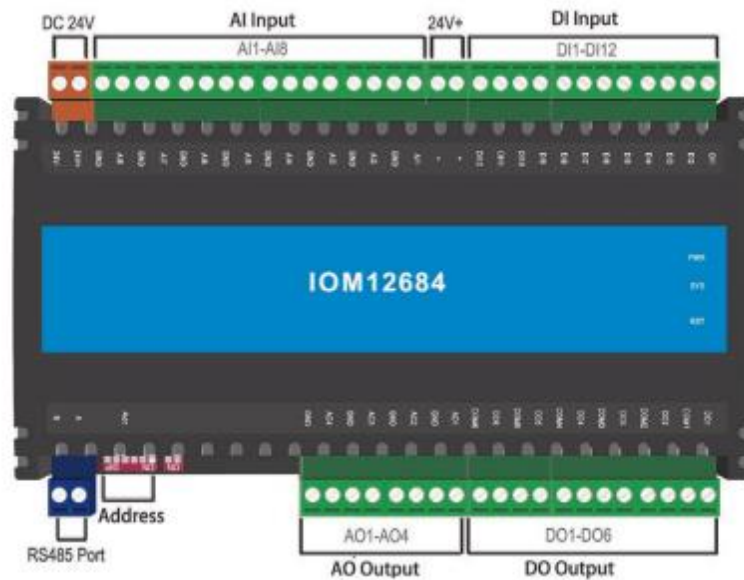


Figure 1 DI Input Wiring



Figure 2 DO Output Wiring



Figure 3 AO Output Wiring

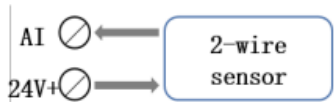


Figure 4 AI input two-wire system

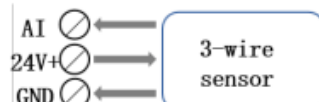


Figure 5 AI input three-wire system

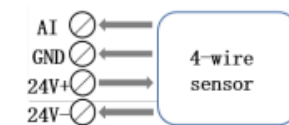


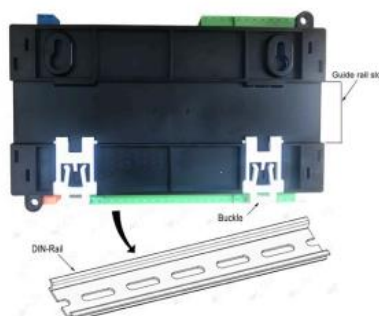
Figure 6 AI input four-wire system



Figure 7 Power supply

5. Installation method:

DIN-Rail 【Size: 185mm*119mm*42mm Weight:350】




Push the white buckle down and pull it into the guide rail, then press the white. buckle upward to fix it,as shown in the figure above.

6. FAQ

A1: The default communication parameters of the BACnet MSTP module is the baud rate of 38400, the data bit 8, stop bit 1, no calibration, and the default ID number of the device is 1. Q2: How to modify module parameters?

A2: The computer connects is connected to ports A and B of the module via the USB to 485 communication line, After scanning the point of the module with BACnetScan

software. Right-click the name  (Analog Value, 0) to expand and click the present value to write the current value modification Baud rate (After power off and restart, the parameters set will take effect.)

Q 3: How to modify the device number (i.e. address) of the module?

A 3: Dial the internal dial of the hardware please refer to the table below

Dial the slice	1	2	3	4	5
Device ID	1	2	4	8	16
Dial the slice	12	123	1234	12345	123456
Device ID	3	7	15	31	63

The free software: BACnetScan scanning software, OPC2WEB software, X2OPC_Free software,MBus scanning tools, Lumiscan green rice smart home scanning tools

7. Contact

OneFex Industrial Technology Co.,Ltd

Email: info@onefexindustrial.com

Website: www.onefexindustrial.com