FAS®

PRODUCT
USE INSTRUCTIONS

Ordering code: 00B831

Part number: FNI IOL-134-000-M12

[Technical support]

IO-Link Hub module user manual
16xDI PNP

Contents

Security

■ Expected use

This manual describes as decentralized input and output modules for connecting to an industrial network.

■ Installation and start-up

Precautions!

Installation and start-up may only be performed by trained personnel. A qualified individual is one who is familiar with the installation and operation of the product and has the necessary qualifications to perform such operations. Any damage caused by unauthorized operation or illegal and improper use is not covered by the manufacturer's warranty. The equipment operator is responsible for ensuring that appropriate safety and accident prevention regulations are observed.

■ Corrosion resistance

Precautions!

FNI modules generally have good chemical and oil resistance.When used in corrosive media (e.g. high concentrations of chemicals, oils, lubricants, coolants and other material media (i.e. very low water content), these media must be checked before the corresponding application material compatibility.If a module fails or is damaged due to this corrosive medium, a defect claim cannot be made.

■ Dangerous voltage

Precautions!

Disconnect all power before using the device!

■ General security

| Debugging and inspection	Trouble	Owner/operator obligations	Expected use
Before debugging, read the user manual carefully.	If the defect or equipment failure cannot be corrected, the operation of the equipment must be stopped to avoid damage that may be caused by unauthorized use.	This equipment is an EMC Class A compliant product. This device produces RF noise.	The warranty and limited liability statement provided by the manufacturer does not cover damage caused by: ·Unauthorized tampering ·Improper use operation ·The instructions provided in the user manual explain the use, installation and handling of discrepancies
This system cannot be used in an environment where the safety of personnel depends on the functionality of the equipment.	Only after the housing is fully installed can the intended use be assured.	The owner/operator must take appropriate precautions to use this equipment.	
		This device can only use the power supply that matches this device, and can only connect cables approved for application.	

1.Component function description

1.1 Module overview
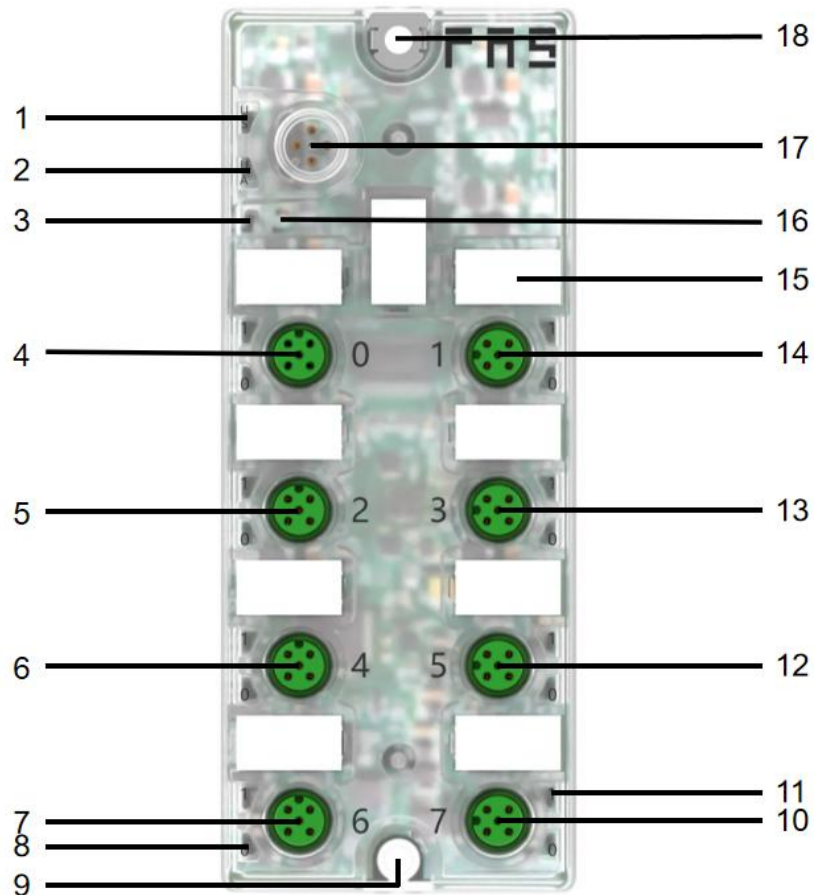
1	2	3	4	5	6
Status LED: Power	Status LED: Actuator	Status LED: IO-Link	Digital I/O port 0	Digital I/O port 2	Digital I/O port 4
7	8	9	10	11	12
Digital I/O port 6	Status LED: Digital I/O Port 4 Pin4	Fixing hole	Digital I/O port 7	Status LED: Digital I/O Port 4 Pin2	Digital I/O port 5
13	14	15	16	17	18
Digital I/O port 3	Digital I/O port 1	Label	Error status indicator	IO-Link interface	Fixing hole

2.Interface definition

2.1 IO-Link interface

M12,A-Coded,Male
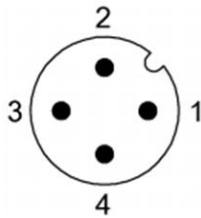
Pin	Illustrate
1	Power supply, +24 V
2	NC
3	GND
4	C/Q, IO-Link data transmission channel

2.2 Digital input port connection diagram

M12,A-Coded,Female

Pin	Function
1	Power supply 24 V
2	Digital input (PNP)
3	Power supply GND
4	Digital input (PNP)
5	FE

PNP Input

3-wire system   2-wire system
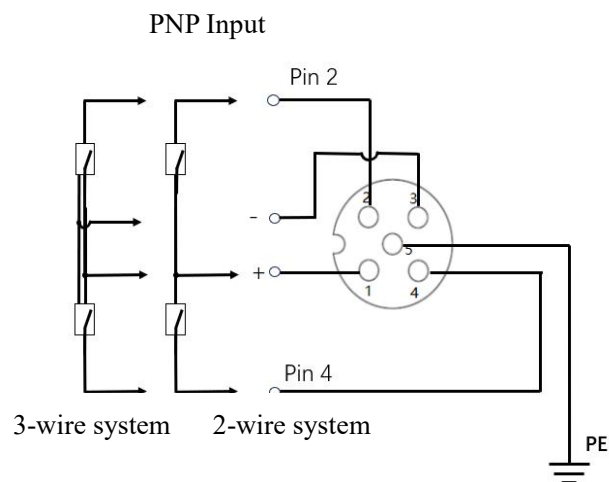
2.3 Status LED meter

State LED	State	Describe
US	Steady green	Module power supply is normal
	Destroy	Module is not powered
UA	Steady green	Auxiliary power supply is normal
	Destroy	No auxiliary power supply
COM	Green intermittent slow flash	Communication abnormality
	Green flashes intermittently quickly	Communication is normal
Error status indicator	Steady red	Auxiliary power supply abnormality
	Red flash	Auxiliary power supply voltage is too high (>DC30V)
	Flashing red slowly	Auxiliary power supply voltage is too low (<DC18V)
	Destroy	There is no exception in the module

2.4 Mechanical dimensions

Project	Specification
Dimensions (Width xHeight x Depth)	58MMx143.2MMx28.7MM
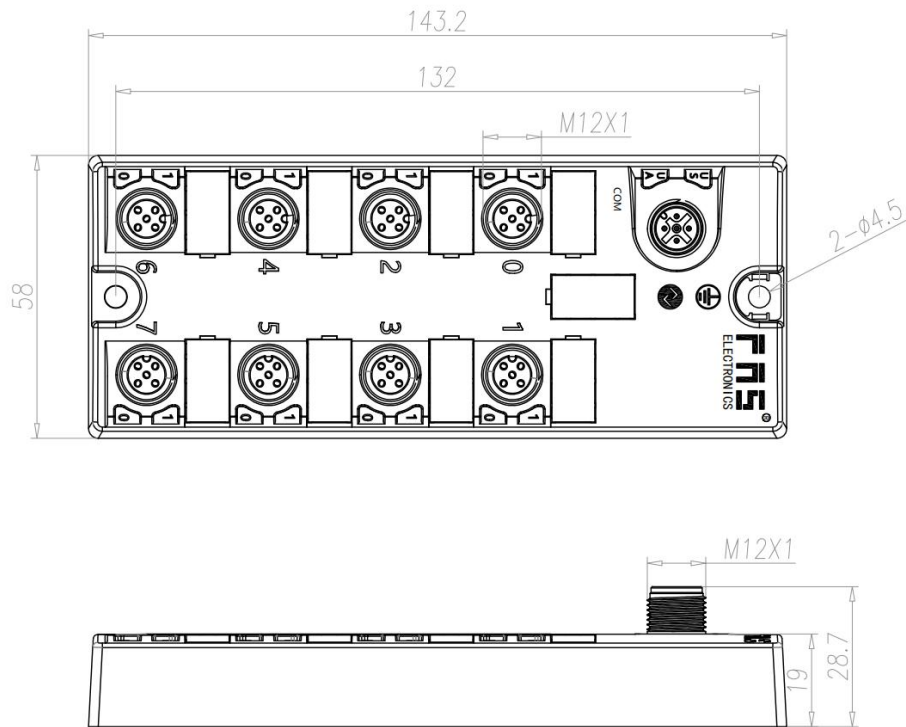
3.IO-Link data

3.1 Communication parameters

Data transmission baud rate	COM2 (38.4kbit/s)
Minimum cycle time	3ms
Process data cycle time	3ms,corresponds to the minimum cycle time
Process data length	2 bytes input

3.2 Process data

3.2.1 Process data/input data

Byte	0								1							
Bits	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
PIN	输入端口7 PIN4	输入端口6 PIN4	输入端口5 PIN4	输入端口4 PIN4	输入端口3 PIN4	输入端口2 PIN4	输入端口1 PIN4	输入端口0 PIN4	输入端口7 PIN2	输入端口6 PIN2	输入端口5 PIN2	输入端口4 PIN2	输入端口3 PIN2	输入端口2 PIN2	输入端口1 PIN2	输入端口0 PIN2

Note：“输入端口”Translate“ Input port”.

For example:

the allocated starting address is 64, then port 0 Pin2 is 65.0 and port 0

Pin4 is 64.0.

3.3 Electrical parameters

Rated working voltage	18...30V DC
Maximum current of each port (Pin1)	1A
Total current Us	＜1.2A

3.4 Service data

	DPP	SPDU		Object name	length	Scope	Defaults
	Index	Index	Subindex				
Identification data				Supplier ID	2		0x0454
				Device ID	3		0x099406
		0x10	0	Supplier name	19	Read only	FAS(Fujian)Co.,LTD
		0x11	0	Supplier text	16		www.fas-elec.com
		0x12	0	Product name	13		FNI IOL-134-000-M12
		0x13	0	Product ID	5		00B831
		0x14	0	Product text	44		IO-Link M12 PNP 16DI
		0x16	0	Hard ware version	3		20211010
		0x17	0	Firmware version	3		2.01
Parameter data		0x40	0	Bit reversal	2	0000-FFFF	0x0000

Note:

0x40 setting bit inversion: 0-bit is not inverted, 1-bit is inverted. For example, the external input is 0x0000. When 0x40 is 0x0000, the value is 0x0000 (not inverted). When 0x40 is 0xFFFF, the value is 0xFFFF (inverted).

3.5 Error code

Error code	Additional code
Device application error 0x80	Index not available 0x11
	Subindex not available 0x12
	Value out of range 0x30

3.6 Event

Class/qualifier			Code (high + low)			
Model	Type	Example				
Appear	Mistake	AL	Device hardware	Powered by	Power supply low voltage	U2=Powered by+24V
0xC0	0x30	0x03	0x5000	0x0100	0x0010	0x0002
0xF3			0x5112			
Disappear	Mistake	AL	Device hardware	Powered by	Power supply low voltage	U2=Powered by+24V
0x80	0x30	0x03	0x5000	0x0100	0x0010	0x0002
0xB3			0x5112			
Appear	Mistake	AL	Device hardware	Powered by	Power supply for peripherals	
0xC0	0x30	0x03	0x5000	0x0100	0x0060	
0xF3			0x5160			
Disappear	Mistake	AL	Device hardware	Powered by	Power supply for peripherals	
0x80	0x30	0x03	0x5000	0x0100	0x0060	
0xB3			0x5160			

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