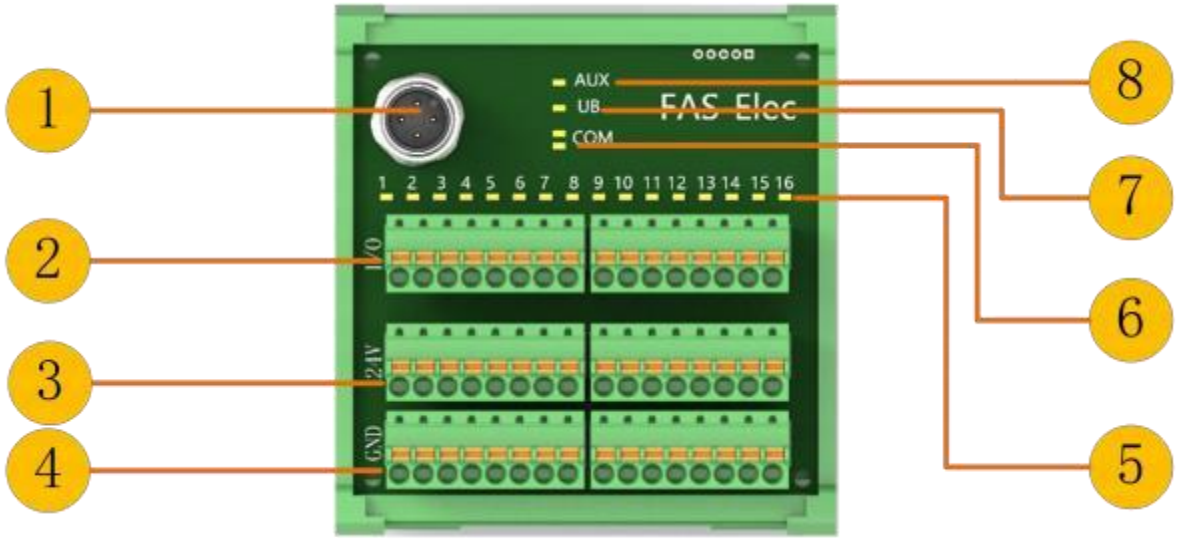
FNI IOL-106-000-K20 manual

1. Connection diagram

As shown in Figure 1.



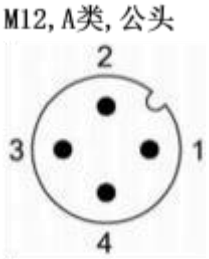
Picture 1

1 IO-Link interface
2 Digital I/O Terminal Blocks
3 24V terminal block
4 GND terminal
5 Status LED: Digital I/O point 16
6 Status LEDs: IO-Link
7 Status LED: Power
8 Status LEDs: Actuator

2. IO-Link interface diagram

As shown in Figure 2.

M12, class A, male



Pin	Illustrate
1	Power supply, +24V
2	Actuator power supply, +24V
3	GND
4	C/Q, IO-Link data transfer channel

Picture 2

3. IO-Link data

3.1 Parameter

As shown in Table 1-1.

Surface 1-1

Data transmission baud rate	COM2 (38 4kbit/s)
Frame type	2 V
Minimum cycle time	3ms
Process data cycle time	3ms, consistent with minimum cycle time
Process data length	2 bytes input

3.2 Process data/input data

As shown in Figure 3.

	0								1							
Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Describe	Digital input point8	Digital input point7	Digital input point6	Digital input point5	Digital input point4	Digital input point3	Digital input point2	Digital input point1	Digital input point16	Digital input point15	Digital input point14	Digital input point13	Digital input point12	Digital input point11	Digital input point10	Digital input point9

Picture 3

E.g:

The input start address assigned in the configuration project is 64, then the first point address is 64.0 The 16th point address is 65.7.

3.3 Parameter data/request data

As shown in Figure 4.

	DPP	SPDU		Object name	length	Scope	Defaults
	Index	Index	Subindex				
Identification data				Supplier ID	2		0x0454
				Device ID	3		0x099CE3
		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-106-000-K20
		0x13	0	Product ID	6		00BS11
		0x14	0	Product text	44		IO-Link IP20 NPN 16DI
		0x16	0	Hardware version	8		20201028
		0x17	0	Firmware version	4		2.00
Parameter data		0x40	0	Bit inversion	2	0000-FFFF	0x0000

Picture 4

Note:

0x40 Set bit reverse: 0-bit is not reversed, 1-bit is reversed, such as external input is 0x0000, when 0x40 is 0x0000, the value is 0x0000 (not reversed), when 0x40 is 0xFFFF, the value is 0xFFFF (reverse).

3.4 Mistake

As shown in Figure 5。

Error code	Additional code
Device app error 0x80	Index unavailable 0x11
	Subindex unavailable 0x12
	Value out of range 0x30

Picture 5

3.5 Event

As shown in Figure 6。

Class/Qualifier			Code(High Bit + Low Bit)			
Pattern	Type	Instance				
Appear	Error	AL	Hardware	Powered by	Power supply low voltage	U2=Power supply+24V
0xC0	0x30	0x03	0x5000	0x0100	0x0010	0x0002
	0xF3		0x5112			
Disappear	Error	AL	Hardware	Powered by	Power supply low voltage	U2=Power supply+24V
0x80	0x30	0x03	0x5000	0x0100	0x0010	0x0002
	0xB3		0x5112			
Appear	Error	AL	Hardware	Powered by	Peripheral power supply	
0xC0	0x30	0x03	0x5000	0x0100	0x0060	
	0xF3		0x5160			
Disappear	Error	AL	Hardware	Powered by	Peripheral power supply	
0x80	0x30	0x03	0x5000	0x0100	0x0060	
	0xB3		0x5160			

Picture 6