FNI IOL-106-004-K20 manual

1. Connection diagram

As shown in Figure 1.

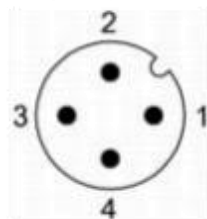Picture 1

1 IO-Link interface

2 Digital I/O Terminal Blocks
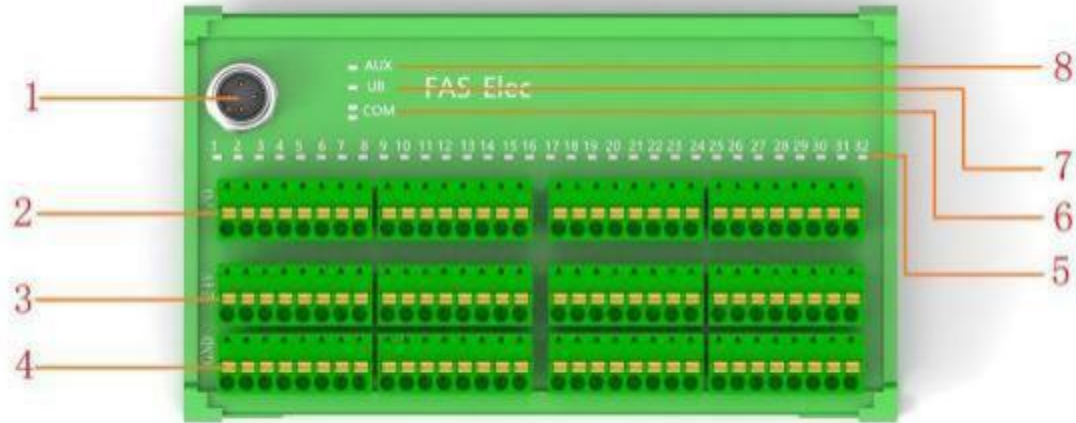
3 24V terminal block

4 GND terminal

5 Status LED: Digital I/O point 32

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	4 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 point 8	Digital input point 7	Digital input point 6	Digital input point 5	Digital input point 4	Digital input point 3	Digital input point 2	Digital input point 1	Digital input point 16	Digital input point 15	Digital input point 14	Digital input point 13	Digital input point 12	Digital input point 11	Digital input point 10	Digital input point 9

	2								3							
Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Describe	Digital input point 24	Digital input point 23	Digital input point 22	Digital input point 21	Digital input point 20	Digital input point 19	Digital input point 18	Digital input point 17	Digital input point 32	Digital input point 31	Digital input point 30	Digital input point 29	Digital input point 28	Digital input point 27	Digital input point 26	Digital input point 25

Picture 3

E.g:

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

The 32nd point address is 67.7.

3.3 Parameter data/request data

As shown in Figure 4。

	DPP Index	SPDU Index	Subindex	Object name	length	Scope	Defaults
				Supplier ID	2		0x0454
				Device ID	3		0x099CE8
Identification data		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-106-004-K20
		0x13	0	Product ID	6		00BS13
		0x14	0	Product text	44		IO-Link IP20 NPN 32DI
		0x16	0	Hardware version	8		20200529
Parameter data		0x17	0	Firmware version	4		2.00
		0x40	0	Bit reversal	4	00000000-FFFFFFFF	0x00000000

Picture 4

Note::

0x40 Set bit reverse: 0-bit is not reversed, 1-bit is reversed, such as external input is 0x00000000, when 0x40 is 0x00000000, the value is 0x00000000 (not reversed), when 0x40 is 0xFFFFFFFF, the value is 0xFFFFFFFF (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