FNI IOL-332-S01-M12 manual

1. Connection diagram

As shown in Figure 1.

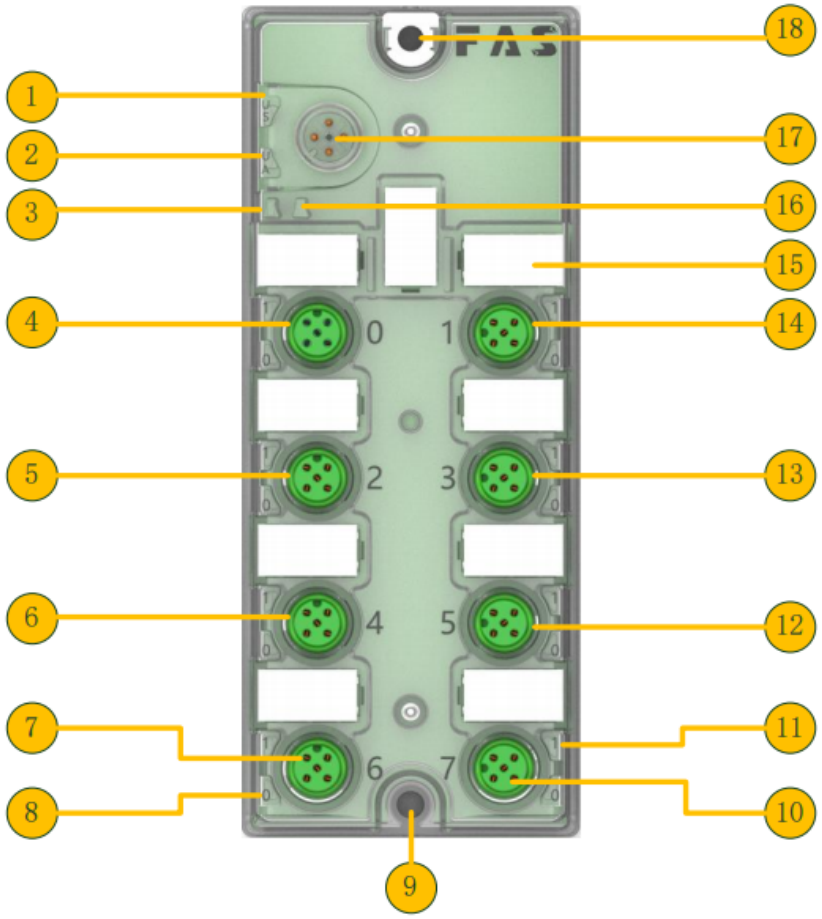


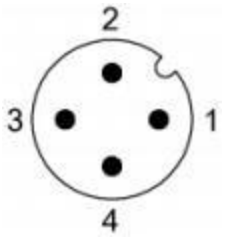
Figure 1

1 Status LED: Power
2 Status LED: Actuator power supply
3 Status LEDs: IO-Link
4 Digital I/O Port 0
5 Digital I/O port 2
6 Digital I/O Ports 4
7 Digital I/O Port 6
8 Status LED: Digital I/O Port 4 Pin4
9 Fixing holes
10 Digital I/O Port 7
11 Status LED: Digital I/O port 4 Pin2
12 Digital I/O port 5
13 Digital I/O Port 3
14 Digital I/O port 1
15 Labels
16 Status LED: Abnormal
17 IO-Link Interface
18 Fixing holes

2. IO-Link interface diagram

as shown in picture 2.

M12,class A, male



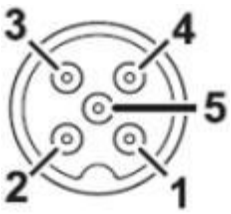
pin	Illustrate
1	Power supply,+24V
2	Actuator power supply,+24V
3	GND
4	C / Q, IO-Link data transmission channel

Figure 2

3. Digital Port Connection Diagram

As shown in Figure 3.

M12,Class A, female



pin	Function
1	Max 350mA,+24V
2	Digital input/output
3	0V, GND
4	Digital input/output
5	FE

Figure 3

4. IO-Link data

4.1 Parameter

As shown in Table 1-1.

Table 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 in, 2 bytes out

4.2 Process data/input data

As shown in Figure 4.

	0								1							
bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Describe	input port7 Pin4	input port6 Pin4	input port5 Pin4	input port4 Pin4	input port3 Pin4	input port2 Pin4	input port1 Pin4	input port0 Pin4	input port7 Pin2	input port6 Pin2	input port5 Pin2	input port4 Pin2	input port3 Pin2	input port2 Pin2	input port1 Pin2	input port0 Pin2

Figure 4

For example: If the assigned starting address is 64, then the port 0 Pin2 is 65.0, and the port 0 Pin4 is 64.0.

4.3 Process data/output data

As shown in Figure 5.

	0								1							
bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Describe	output port7 Pin4	output port6 Pin4	output port5 Pin4	output port4 Pin4	output port3 Pin4	output port2 Pin4	output port1 Pin4	output port0 Pin4	output port7 Pin2	output port6 Pin2	output port5 Pin2	output port4 Pin2	output port3 Pin2	output port2 Pin2	output port1 Pin2	output port0 Pin2

Figure 5

For example: If the assigned starting address is 64, then the port 0 Pin2 is 65.0, and the port 0 Pin4 is 64.0.

4.4 parameter data/request data

As shown in Figure 6.

	DPP	SPDU		Object name	length	Scope	Defaults
	Index	Index	Subindex				
Identifying data				Supplier ID	2		0x0454
				Device ID	3		0x0994C8
		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-332-S01-M12
		0x13	0	Product ID	5		00BE31
		0x14	0	Product text	44		IO-Link M12 PNP 16_DI/DO
		0x16	0	Hardware version	3		20211010
		0x17	0	Firmware version	3		2.01
parameter Data		0x40	0	Bit inversion	2	0000-FFFF	0x0000
		0x41	0	Direction	2	0000-FFFF	0x0000

Figure 6

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).

0x41 Set direction: 0-input, 1-output.

4.5 Mistake

As shown in Figure7.

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

Figure 7

4.6 Event

As shown in Figure8.

Class/qualifier			Code (high + low)			
Model	tT	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	Peripheral power supply	
0xC0	0x30	0x03	0x5000	0x0100	0x0060	
0xF3			0x5160			
Disappear	mistake	AL	Device hardware	Powered by	Peripheral power supply	
0x80	0x30	0x03	0x5000	0x0100	0x0060	
0xB3			0x5160			

Figure 8