FNI_IOL-332-004-M12

FNI IOL-332-006-M12

manual

1. Connection diagram

As shown in the picture

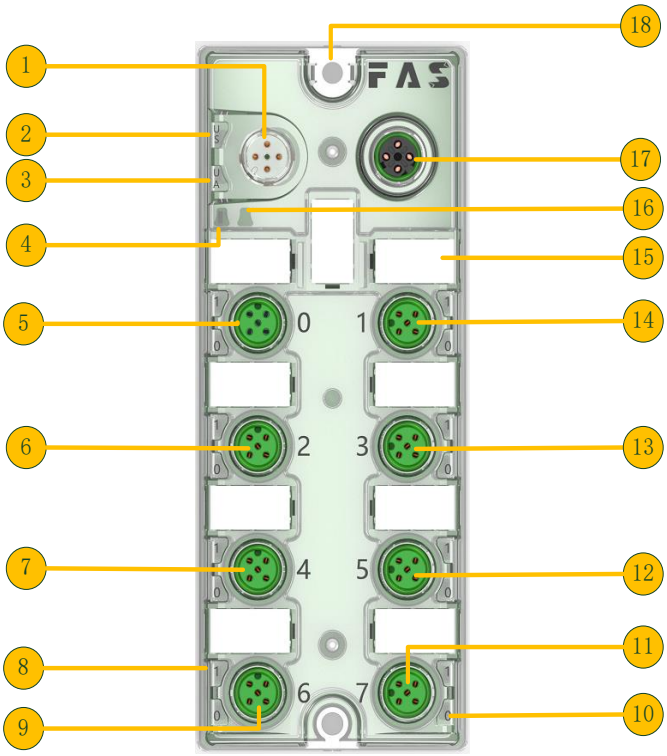


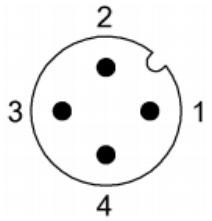
图 1

1 IO-Link port
2 state LED: power
3 state LED:Actuator
4 state LED:IO-Link
5 digital I/O port 0
6 digital I/O port 2
7 digital I/O port 4
8 state LED:digital I/O port 6 Pin2 18 Ground interface
9 digitalI/O port 6
10 state LED:digital I/O port7 Pin4
11 digitalI/O port 7
12 digitalI/O port 5
13 digital I/O port 3
14 digital I/O port 1
15 Label
16 Status LED: Abnormal
17 Expansioninterface

IO-Link Interface diagram

如图 2 所示。 as shown in picture 2.

M12,A类,公头　　M12 A-code Male



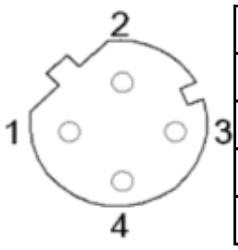
PIN	illustrate
1	Power supply +24v
2	Actuator power supply +24V
3	GND
4	C / Q, IO-Linkdata transmission channel

图 2

2. 扩展接口图

如图 3 所示。

M12,D-coded,母头　　M12 D-CODE Femlae



pin	
1	Power supply +24v
2	C/Q1
3	GND
4	C/Q2

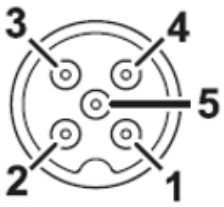
图 3

3. Digital input port connection diagram

Func

As shown in Figure 4.

M12,A类,母头　　M12 A-CODE Femlae



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

Note: FNI IOL-332-004-M12 (00B933) does not have digital output function.。

4. IO-Link data

5.1 parameter

As shown in Table 1-1.

Table 1-1

Data transmission baud rate	COM2 (38.4kbit/s)
Minimum cycle time	4.5ms
Process data cycle time	4.5msCorresponds to the minimum cycle time
Process data length	4 Byte input, 4-byte output

5.2 Process data/input data
As shown in Figure 5.
Note: 0 and 1 are the first level, 2 and 3 are the second level (expansion)

	0								1								2								3							
Byte	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
describe	port7 in Pin4	Port6 in Pin4	Port5 in Pin4	Port4 in Pin4	Port3 in Pin4	Port2 in Pin4	Port1 in Pin4	Port0 in Pin4	Por7 in Pin2	Port6 Pin2	Port5t in Pin2	Port4 in Pin2	Por3 in Pin2	Por2 in Pin2	Por1 in Pin2	Por0 in Pin2	Por7 in Pin4	Port in Pin4	Por5 in Pin4	Por4 in Pin4	Por3 in Pin4	Port2 in Pin4	Port1 in Pin4	Port 0 in Pin4	Port7 in Pin2	Port6 in Pin2	Por5 in Pin2	Port4 in Pin2	Port3 in Pin2	Por2 in Pin2	Port in Pin2	Port 0 in Pin2

Figure 5
Example: The input starting address assigned by the configuration project is 64, then the input address of the first-level module port 0 Pin2 is I65.0, and the input address of the second-level module port 0 Pin2 is I67.0.
5.3 Process data/output data

As shown in Figure 6.

Note: 0 and 1 are the first level, 2 and 3 are the second level (expansion).

	0								1								2								3							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
port 7 Pin4	Port Out 6 Pin4	Port Out5 Pin4	Port Out4 Pin4	Port Out3 Pin4	Port Out2 Pin4	Port Out1 Pin4	Port Out0 Pin4	Port Out7 Pin2	Port Out6 Pin2	Port Out5 Pin2	Port Out4 Pin2	Port Out3 Pin2	Port Out2 Pin2	Port Out1 Pin2	Port Out0 Pin2	Port Out7 Pin4	Port Out6 Pin4	Port Out5 Pin4	Port Out4 Pin4	Port Out3 Pin4	Port Out2 Pin4	Port Out1 Pin4	Port Out0 Pin4	Port Out7 Pin2	Port Out6 Pin2	Port Out5 Pin2	Port Out4 Pin2	Port Out3 Pin2	Port Out2 Pin2	Port Out1 Pin2	Port Out0 Pin2

Figure 6
Example: The output start address assigned by the configuration project is 64, then
The first-level module port 0 Pin2 output address is Q65.0,
The output address of second-level module port 0 Pin2 is Q67.0.
NOTE: First level output is only available with FNI IOL-332-006-M12.

5.4 Parameter data/request data

As shown in Figure 7.

	DPP index	SPDU index	SPDU subindex	object name	length	scope	default value
identification data				supplier ID	2		0x0454
				device ID	3		0x099EE1 0x099EDF
		0x10	0	Supplier name	19	只读	FAS(Fujian)Co.,LTD
		0x11	0	Supplier name	16		www.fas-elec.com
		0x12	0	product name	19		FNI IOL-332-004-M12 FNI IOL-332-006-M12
		0x13	0	productI D	6		00B933 00B936
		0x14	0	product text	44		IO-Link M12 NPN extended with other
		0x16	0	hardware version	3		20220323
		0x17	0	Firmware version	8		2.02
parameter data		0x40	0	bit inversion	4	0x00000000-0xFFFFFFFF	0x00000000
		0x41	0	direction	4	0x00000000-0xFFFFFFFF	0x00000000
		0x55	0	Equipment type	1	0x01-0x05	FNI IOL-332-004-M12 0x01 FNI IOL-332-006-M12 0x05

Note:

0x40 sets the bit reverse: 0-bit is not reversed, 1-bit is reversed. For example, the external input is 0x0000. When 0x40 is 0x00000000, the value is 0x00000000 (not reversed). When 0x40 is 0xFFFFFFFF, the value is 0xFFFFFFFF (reverse).

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

Index 0x55	illustrate
value 0x00	FNI IOL-302-004-M12 (Master) FNI IOL-302-006-M12 (Master)
0x01	Master with FNI IOL-302-004-M12
0x02	Master with IP20 Device (Reserve)
0x03	Master with Valve Device (Reserve)
0x04	Master with FNI IOL-302-S04-M12
0x05	Master with FNI IOL-302-006-M12

5.5 error

As shown in Figure 7.

error code	Additional code
Device application error 0x80	Index not available0x11
	Index not available 0x12
	value out of range 0x30

Figure 8

5.6 event

As shown in Figure 9.

class/qualifier			Code (high + low)			
model	type	Example				
Appear	error	AL	Device hardware	供电	供电低压	U2=供电+24V
0xC0	0x30	0x03	0x5000	0x0100	0x0010	0x0002
0xF3			0x5112			
disappear	error	AL	Device hardware	供电	供电低压	U2=供电+24V
0x80	0x30	0x03	0x5000	0x0100	0x0010	0x0002
0xB3			0x5112			
Appear	error	AL	Device hardware	供电	外设供电	
0xC0	0x30	0x03	0x5000	0x0100	0x0060	
0xF3			0x5160			
disappear	error	AL	Device hardware	供电	外设供电	
0x80	0x30	0x03	0x5000	0x0100	0x0060	
0xB3			0x5160			

图 9