

## FNI ECT-508-105-M

# IO Link Master IO Link Master Module User Manual





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1 Notes	
1.1 Manual structure	1 1 This manual is organized by organization, so the chapters are
1.1. Manual structure	interconnected.
Section 2: I	Basic Security Information.
Chapter 3:	Getting Started Guide
Chapter 4:	Technical Data
1.2. Typography The	e following typographic conventions are used in this manual.
Enumerate	The enumeration is displayed as a list with bullets.
Headword	11
• Headword	2
Action	Action descriptions are represented by a front triangle.
	Action description 1
	Action result
	Action description 2
	Step programs can also be displayed numerically in parent
	eses.
	(1) Step1 (2) Step2
Grammar number:	(2) Step2
	Decimal numbers are displayed without additional indicators
	(eg 123)
	Hexadecimal numbers are displayed with an additional indi ato r hex (eg: O0hex) or with the prefix "OX" (eg: 0x00)
Cross reference	
	Cross-references indicate where to find additional inform tio
	n on this topic.
1.3.Symbol -	
	Notes
	This symbol indicates a general comment.
	Notice!!
	This symbol indicates the most important safety notice.
1.4. acronym	FNI: FAS Network Interface
	I :standard input
	port
	ECT: EtherCAT EMC
Electromagnetic	Compatibility
	FE: functional ground
	0 standard output port
1.5. Perspecti	ve Deviations The product views and explanations in this manual
may deviate fr	rom the actual product. They are used only left and right to
explain the ma	iterial.



2.1.Expected usage This mar n to a	ual describes as a decentralized input and output module for connectio n industrial network.
2.2. Install and start Precaution Installation and sta d spe ar wit nece rized manu nsurin n reg	ons! art-up should only be carried out by trained an cialized personnel. A qualified individual is one who is famili th the installation and operation of the product and has the ssary qualifications to do so. Any damage caused by unautho operation or illegal and improper use is not covered by the facturer's warranty. Equipment operators are responsible for e ng compliance with appropriate safety and accident preventio ulations.
2.3. General security Debug a	nd check
Notes Before debuggir	ng, you should read the contents of the user manu
al car The system cannot sonne	efully. be used in applications where the safety of pe el depends on the functionality of the equipment.
intended use	
The manufacturer's caused	warranty coverage and limited liability statement do not cover damage by:
<ul> <li>Unauthorized ta</li> </ul>	mpering
<ul> <li>Improper use</li> <li>Handling install</li> </ul>	ation and operation that do not conform to the instructions provided in t
he us	er manual
Owner/Operator O	bligations
This device is an EN The o equip	AC Class A compliant product. This device generates RF noise. wner/operator must take proper precautions when using thi ment. This device can only use
only approved cables.	power supply compatible with this equipment, and connect
Fault	
If the defect or equ st be	ipment failure cannot be corrected, the operation of the equipment mu stopped in order to
prote Intended use can o	nly be ensured when the enclosure is fully installed.
2.4. Corrosion resistance	e Precautions! FNI modules generally have good chemical and oil resistan ce characteristics. When used in aggressive media (e.g. h igh concentrations of chemicals, oils, lubricants and coo lants (i.e. very low water content)), these media must be checked before the corresponding application material co mpatibility confirm. If the module fails or is damaged du
Dangerous voltage	Precautions! Disconnect all power sources before using the equipment!



# Fuyansheng Electronic (Fujian) Co. LTD 3 Getting Started Guide

#### 3.1. Module overview



1 Mounting holes	8 Port 5	15 Port Identification Board
2 Network port 2 status indicator	9 Port 7	16 Power input port
3Network port 2	10 Port 6	17 Module indicator
4 Power outlet	11 Port 4	18Network port 1
5 DIP switch	12 Port 2	19Network port 1status indicator
6 Port 1	13 Port Status Indicators	20 Ground connection
7 Port 3	14 Port 0	



3.2. Mechanical connection The modules are attached using 2 M6 bolts and 2 washers. Isolation pads are available as accessories.

#### 3.3. Electrical connections

3.3. 1 Power interface(L-code)





Pin	Features	Describe
1	Us+	+24V(BR)
2	Ua-*	OV(WH)
3	Us-	OV(BL)
4	Ua+*	+24V(BK)
FE	Functional ground*	FE(yellow-green)

Notes:

 If possible, supply sensor/module power and actuator power separately. Total current <9A, even if the actuator power supply is daisy chained, the total current of all modules is <9A.</li>

2. The FE connection from the housing to the machine must be low impedance and kept as short as possible.

#### **3.3.2** Network Interface(D-code)

pin	f	features
1	Tx+	Send data+
2	Rx+	receive data+
3	Tx-	Send data+
4	Rx-	receive data+

notes: Unused  $\mathrm{I}/\mathrm{O}$  port sockets must be covered with end caps to meet IP67 rating.



#### 3.3.3 I/O-port(A-code)

## Port0~Port7 define:



pin	Features
1	+24V (BR)
2	Input Output(White)
3	OV (BL)
4	Input/Output/IOLINK (BK
5	FE

Notes:

- 1. For digital sensor input, please follow the input guidelines of EN61131-2, Type 2.
- 2. The maximum output current of pins 2 and 4 is 2A. The total current of the module is <9A.
- 3. Unused I/O port sockets must be covered with end caps to meet IP67 protect

#### 4.1. Size





#### 4.2 Mechanical data

Shell material	Die-cast aluminum case, pearl nickel plated
Enclosure rating according to IEC 60529	IP67(Only in plug-in or plug-in style)
Power interface	L-Code(male and female)
Input port/output port	M12, A-Code(8* female)
Size(W*H*D)	65mm*222mm*25.8mm
Installation type	2-Through hole mounting
Ground Bus Accessories	M4
weight	Make an appointment670g

#### 4.3. Operating conditions

Operating temperature	-5° C ~ 70° C
Storage temperature	$-25^{\circ} C \sim 70^{\circ} C$

#### 4.4. Electrical data

voltage	18~30V DC, symbol EN61131-2
voltage fluctuation	<1%
Input current when supply voltage is 24V	<130mA

#### 4.5 Network port

port	2 x 10Base-/100Base-Tx	
port connection	M12, D-Code	
IEEE 802.3 Compliant Cable Types	Shielded twisted pair, minimum STP CAT 5/STP	
	CAT 5e	
Data transfer rate	10/100 M bit/s	
Maximum cable length	100m	
Flow control	Half condition/full condition (IEEE 802.3-	
	PAUSE)	

#### 4.6 function indicator

-	PT
-	RUN
30000	ERR
30000	US
3000	UA
-	

PI DLOL EtherCat letter of agreement		РТ	BLUE	EtherCat letter of agreement
--------------------------------------	--	----	------	------------------------------

#### $\mathsf{PN}$ Communication protocol module status

LED	show	Function			
	green light off	work normally			
RUN	green light flashing 2.5H <b>Z</b>	Pre-running: The device is in a pre- running state			
	green light flashing 1HZ	Safe operation: The device is in safe operation			
	Steady green	Running: The device is running			
	off	Device EtherCAT communication is active			
ERR	Red light flashing 2.5HZ	Invalid configuration			
	Red light flashing 1HZ	local error			
	red double flash	Application watch timeout			
US	green	input voltage is normal			
05	Res light flashing	input voltage is normal (<18 V)			
TTA	green	The output voltage is normal			
UA	Res light flashing	low output voltage (<18 V)			
	Red always on	no output voltage (<11 V)			



I/O	State	Features
port		
status		
LED		
1	Closure	The status of Pin4 input or output is 0
1	Yellow	The status of Pin4 input or output is1
1	Red	Port is configured as input: Pin1 overcurrent
		Port configured as output: Pin4 overcurrent
1	Flashing red	Port configured as output: Pin1 overcurrent
1	Green	IO Link connected
1	Flashing	IO Link not connected
	green	
2	Closure	The status of Pin2 input or output is0
2	Yellow	The status of Pin2 input or output is1
2	Red	Port is configured as input: Pin1 overcurrent
		Port configured as output: Pin2 overcurrent
2	flashing red	Port configured as output: Pin1 overcurrent



## Network port status

LED	State	Features
IN(L/A)	Flashing green	Data transmission
OUT (L/A)	Flashing green	Data transmission

4.7 EtherCAT node address setting

1. Set by dial code (1~192 or 401~499)

a. Switch to the EtherCAT communication protocol, the X100 dial is the hundreds digit of the address, the X10 dial is the tens digit of the address, and the X1 dial is the ones digit of the address

b. After dialing the code in the power-on state, it needs to be powered on again. 2. Set by PLC

a. Switch to the EtherCAT communication protocol, the X100 dial is 0, the X10 dial is 0, and the X1 dial is 0

b. Set node address through PLC software

#### 5 Technical data

#### 5.1 PLC integrated

**5.1.1** OmronNX1P2 Sysmac Studio integrated 这里, You will see how to integrate this module into an Omron PLC Example, take Omron NX1P2 PLC as an example

Install the ESI file: Configuration and Settings --- EtherECT --- Right-click the main device --- Click to display the ESI library --- Click "Install File" in the pop-up window --- Select the corresponding product ESI file



Create a module: Click on the right toolbox---find FAS Fieldbus Modules---select the product model FNI ECT-508-105-M

Double-click the corresponding product to add it to the main device



Module slot data (IOLINK mode): Right click on the module — select edit module configuration — drag the required data into the module slot — if the slave station has an output signal, open the master station PIN2 — Click on I/O Mapping — Give Digital Output Mapping\_Output Pin 2 a variable — Set Output Pin 2, the port that uses output signals in the program, to 1 — the configuration is successful!



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V @ EtherCA1		<ul> <li>Divide Company Managing Change Rin 2, 7100, 02</li> </ul>		AREAND TIOF BOOL		1.	10 Tel Dur 1 tel 2
VIO TERT: INTECT-S	98 <u>-</u>	Dontal insut Manpien Insut Pin 4 6100 01		ARRAND TI OF BOOL			
L C 0:10LJ0,8,8	7	Digital Input Mapping Input Pin 2 6100 02	B	ARRANIO 71 OF BOOL			1771
L = 1:10L10_8_8	9/	Digital lepst Mapping Actuator Stutdown Pin 4 6100 03		AREAND. 71 OF BOOL			2 (0 88)
	N3	Digital Input Mapping Actuator Shutdown Pin 2 6100 04	8	ARRAND, TOF BOOL			
L = 3 : Digital_N(N		Digital Input Mapping Sensor Supply Short Circuit 6100.05		ARRAND, 71 OF BOOL			▶ ◎ 透动控制设置
	45	Digital Input Mapping Device Status 6100.06		ARRAN 0.7 OF BOOL			e' Cembleium
	46	IO-Link Device State Status Of ID-Link Port 0 6110 01		USINT	Timrout		▶ 事件设置
L C 5: Digital IND	47	IO-Link Device State, Status Of IO-Link Port 1, 6110, 02		USINT	Timeout		<ul> <li>任务设置</li> </ul>
L C 7 Distal NO	24	IO-Link Device State Status Of IO-Link Port 2, 6110, 03		USINT	Timeout		い教育時齢企業
L C 8-District Off	0.8	IO Link Device State_Status Of IO Link Port 3_6110_04		USINT	Tennoul		
		IO-Link Device State_Status Of IO-Link Port 4_6110_05		USINT	Timpout		
C C Stolgardon		IO-Link Device State_Status Of IO-Link Port 5_6110_06		USINT	Imeout		- 10 Ma
C C TO: Ugaz IN	M	IO-Link Device State_Status Of IO-Link Port 6_6110_07		USINT	Timeout		
C = 11: Digitar IN	M	IO-Link Device State_Status OF IO-Link Fort 7_6110_08		USINT	Timedul		- regime
L C 12 Digital IN	M MARKS	IOL ID 8 Royle					a177
L ⊂ 13 : Digitai [N	M 82461	IOL_IO_& Boyte					
	M 18882	DgtaLN					上冠 功能快
L C 15: Digital_IN	M	Digital_IN					▶ □ 教護
▶ 51 CPU/F 飛机課	122844	DigitaLN					▼ In 任务
10 stat	34485	Digital IN					V In PrimeryTask
► R. 2010202	11486	Digital IN					L # Program
► @ SECTOR 0	13/47	Data N					

Module I/O Variables: Digital Output Mapping\_Output Pin 4 Digital Output Mapping\_Output Pin 2 Digital Input Mapping\_Input Pin 4 Digital Input Mapping\_Input Pin 2 Digital Input Mapping\_Actuator Shutdown Pin 4 Digital Input Mapping\_Actuator Shutdown Pin 2 Digital Input Mapping\_Sensor Supply Short circuit Digital Input Mapping\_Device Status

数字输出映射\_输出引脚 2 数字输入映射\_输入引脚 2 数字输入映射\_输入引脚 2 输入引脚 4 短路检测 输入引脚 2 短路检测 输入引脚 1 引脚 3 短路检测 设备过程输入状态

herto			Equi	ipment l	Process	Input S	tate Fi	unctiona	1
byte	Function Description	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
0	Standard IO input O= no signal 1=have no	Port7 Pin4	Port6 Pin4	Port5 Pin4	Port4 Pin4	Port3 Pin4	Port2 Pin4	Portl Pin4	Port0 Pin4
1	Standard IO input O= no signal 1=have signal	Port7 Pin2	Port6 Pin2	Port5 Pin2	Port4 Pin2	Port3 Pin2	Port2 Pin2	Portl Pin2	Port0 Pin2
2	<pre>short circuit detection  (Pin4 overcurrent) 0= no overcurrent 1= overcurrent</pre>	-	-	-	_	Port3 Pin4	Port2 Pin4	Portl Pin4	Port0 Pin4

	short								
2	circuit	-	-	-	-	Port3 Pin2	Port2 Pin2	Port1 Pin2	PortO Pin2
3	detection								
	(Pin?								
	(TINZ								
	over current								
	) 0- no								
	signal								
	1=have								
	signal								
	short								
	sirouit	Port7	Port6 Pin1	Port5 Pin1	Port4 Pin1	Port3 Pin1	Port2 Pin1	Port1 Pin1	Port0 Pin1
4	detection	Pin1							
	(Pini								
	overcurrent								
	) 0= no								
	signal								
	1=have								
	signal								
5	10L1nk	Port7	Port6	Port5	Port4	Port3	Port2	Port1	Port0
0	communication								
	status								
	0=unconnected								
	1=connected								

6	IOLink PD efficient O= prohibit 1= Enable	Port7	Port6	Port5	Port4	Port3	Port2	Port1	Port0
7	module status	_	_	_	Usovervo ltage	Ua overvolt age	overvo ltage	Us undervol tage	Ua undervol tage

Module slot data (common IO mode): right click on the module ---- select edit module configuration ---- drag the required data into the module slot (0~7: Pro0~7 PIN4 pin function, 8~15: Pro0~7 PIN2 pin function) --- click I/O mapping --- set the input and output variables of PIN2 and PIN4 pins of the port

2件(F) 機構(E) 模範(V) 插入(I) 工程(P) 控制器(C) 種類(S) 工具(T) 整口(W) 解散(H)	文性的 网络图 视图仪 插入的 卫程的 發物器の 建制成 正星的 第四份 单称化
	X B B B 5 C B B B A M II B H A B B A M H H 5 6 0 5 2 II 4 4 5
ALSCHEIMEN CONTRACT CON	Filter         Table           Filter         Table         Table           Filter         Table         Table           Filter         Table         Table         Table           Filter         Table <t< th=""></t<>

As shown above, Pro0~7 PIN4 is the input setting, and Pro0~7 PIN2 is the output setting, that is, in the I/O var iable

Digital Output Mapping\_Output Pin 2 Digital Input Mapping\_Input Pin 4 Fill in the variables and then program in the program ---- Configuration is complete!



#### 5.1.2 In BECKHOFF TwinCAT XAE 5.1.2 In BECKHOFF TwinCAT XAE

Add PLC path: Right-click the TwinCAT icon in the lower right corner to open Edit Routes



Click Add...; Add Route (Add Route Dialog)

oute	Connected	AmsNetId	Address	Туре	Comment

#### Broadcast Search-select PLC(CX-3D0A4)-Add Route

Enter Host Name / IP:			3	Refresh Status		Broadcast Search
Host Name Connected CX-3DB0A4	Address 169.254.196.80	AMS NetId 5.61.176.164.1.1	TwinCAT 3.1.4024	OS Version Win CE (6.0)	Fingerpr EE34BAF	rint F81AC3E868A0B891DBA
< Noute Name (Target):	CX-3DB0A4		Rout	e Name (Remot	e): D	> DESKTOP-6GGGT9H
< toute Name (Target): wmsNetId: 'ransport Type: uddress Info:	CX-3DB0A4 5.61.176.164.1 TCP_IP 169.254.196.80	.1	Rout Targ	te Name (Remot get Route Project Static	e): []	> DESKTOP-6GGGT9H Remote Route None / Server Static
Koute Name (Target): AmsNetId: 'ransport Type: Uddress Info: Host Name IP A 'annection Timeout (s):	CX-3DB0A4 5.61.176.164.1 TCP_IP 169.254.196.80 Address		Rout Tary O O	ie Name (Remot get Route Project Static Temporary dvanced Settings	e): []	> DESKTOP-6GGGT9H Remote Route None / Server Static Temporary Unidirectional

 $\label{eq:entropy} \mbox{Enter the default password "1" - click OK to complete adding the PLC path$ 

Add Remote Route			×
Secure ADS (TwinCA Self Signed Certifica Check Fingerprint Compare with:	NT 3.1 >= 4024) te EE34BAF81AC3E868A0B891DBABF5A7I	F9397D0BBBB9871	D12202DE429EA0810C0E
Shared Certificate A	uthority (CA)		Ignore Common Name
Remote User Credentials User:	Administrator	Password:	हास 1

Add device configuration file: FAS FNI-ECT-508-105 (provided by FAS) Copy the file to the following path to complete the configuration file addition: C:\TwinCAT\3.1\Config\I0\EtherCAT

🛃 📕 =								
文件 主英	共交	五台						~ (
+	■ > #0	电脑 > 本地磁盘 (C:) > TwinCAT > 3.1 >	$Config \Rightarrow Io \Rightarrow EtherCA$	т		~ 0	樱素*EtherCAT*	P
		名称 ^	修动口期	※四	大小			
🖈 快速访问		Beckhoff EPP7xxx	2019/11/25 11:36	XML 3288	2.215 KB			
- 東西	1	Beckhoff EPP9xxx	2019/10/15 14:54	XML文档	197 KB			
- 下戦	38.	Beckhoff EPx9xx	2019/11/19 8:25	XML文档	629 KB			
1 文档	1	Beckhoff EQ1xxx	2015/11/12 14:24	XML文档	22 KB			
- 四片	1	Beckhoff EQ2xxx	2016/11/23 10:42	XML 3288	73 KB			
	10	Beckhoff EQ3xxx	2016/11/22 11:22	XML 3288	1,386 KB			
IDHEBA		Beckhoff ER1xxx	2016/11/21 15:46	XML 文档	165 KB			
🧳 网络		Beckhoff ER2xxx	2016/11/21 14:32	XML文档	259 KB			
		Beckhoff ER3xxx	2017/6/9 13:35	XML 文档	1,177 KB			
		Beckhoff ER4xxx	2016/11/22 12:58	XML文档	318 KB			
		Beckhoff ER5xxx	2016/3/14 11:52	XML 228	273 KB			
		Beckhoff ER6xxx	2016/3/14 11:52	XML X84	494 KB			
		Beckhoff ER7xxx	2019/2/14 8:50	XML 1285	2.717 KB			
		Beckhoff ER8xxxx	2016/3/14 11:52	XML 文档	207 KB			
		Beckhoff EtherCAT EvaBoard	2015/2/4 12:57	XML文档	72 KB			
		Beckhoff EtherCAT Terminals	2015/2/4 12:57	XML 文档	53 KB			
		Beckhoff FB1XXX	2017/5/24 12:26	XML 文明	49 KB			
		Beckhoff FCxxxx	2015/2/4 12:57	XML 文档	21 KB			
		Beckhoff FM3xxx	2018/6/29 15:05	XML 文档	367 KB			
		Beckhoff ILxxxx-8110	2015/2/4 12:57	XML文档	8 KB			
		# FAS CTEU-ECT V4.6.0	2020/10/10 10:01	XML文档	14 KB			~
101 个项目 动	中1个项目	8 13.5 KB						Bee Mar

#### New Construction:

Open TwinCAT XAE software---File-New-Project---select TwinCAT XAE Projectenter name-OK



#### Select target system:

SYSTEM-Choose Target System-slect PLC(CX-3DBOA4)-OK

解決方案资源管理器	+ # × TEST1030 + ×
Control C	De         Ceneral Settings Additional Files           2         TwinCAT Soutem Manager         Choose Target           v2.1 (Build 4309)         Versit         Choose Target           Versit         Choose Target System         X           Eng         Image: Choose Target System
	Connector Timenut (s): 4

#### add module:

Pull down the IO option-DEVICES-SCAN; search for the master station, select Device  $2\,(\mbox{EtherCAT})\,-\mbox{OK}$ 



Module slot data (IOLINK mode):

Find the module FNI-ECT-508-105-M under the resource manager, select Slots, select the required slot data for configuration, slots  $0^7$  are PIN4 functions, slots  $8^15$  are PIN2 functions

TwinCAT Project27 - TcXaeShell           (年行) 編集(E) 税恩(V) 项目(P) 生成(B) 編武(D)           ● - ○ 12 - 12 = 12 = 12 = 12 = 12 = 12 = 12 =	TwinCAT Twin Release	SAFE PLC 肥乩(M) Scor • TwinCAT RT (x64) • AT Project27 • 《Local》	ce I具(T) 彀□(W) ▶ R510 Untitl	編的(H) - 月 ed2 •	<ul><li>(王) =</li></ul>	- ନ୍ମ୍ନ ସା:୧:୩	± ¥ © ඞ ○  ☆ ☆ ≅	100.	¥
決方室资源管理器	P × MAIN	TwinCAT Project27 🙂	×						
0 0 1 H • 1 0 • 8 1 🖋 🗕	Gener	ral EtherCAT DC Proces	s Data Pic Slots St	artup CoE - Online Online	•				
DUTs	^ Slo	ot	Module	ModuleIdent	1	Module	ModuleId	Description	^
A DODS		IO-Link Port 0	IOL_IO_8_8byte IOL_IO_8_8byte	0x0000130B 0x0000130B		IO Digital_IN IOL_I_1byte	0x00001101 0x00001102	Digital-IN IO-Link 1 Byte Input Process Data	
VISUs		<ul> <li>IO-Link Port 2</li> <li>IO-Link Port 3</li> </ul>	IOL_IO_8_8byte IOL_IO_8_8byte	0x0000130B 0x0000130B	x	OL_1_2byte	0x00001103 0x00001104	IO-Link 2 Byte Input Process Data IO-Link 4 Byte Input Process Data	
MAIN		O-Link Port 4	IOL IO_8_8byte	0x0000130B		OL_I_6byte	0x00001105 0x00001106	IO-Link 6 Byte Input Process Data IO-Link 8 Byte Input Process Data	
Q Untitled2 Instance		O-Link Port 6	IOL_IO_8_8byte	0x0000130B		OIL 1 10byte	0x00001107	IO-Link 10 Byte Input Process Data	
C++		IO Function Port 0 Pin 2	Digital_OUT	0x00001201		OIOL 1_24byte	0x00001109	IO-Link 24 Byte Input Process Data	
		IO Function Port 1 Pin 2 IO Function Port 2 Pin 2	Digital_OUT	0x00001201		IO Digital_OUT	0x0000110A	Digital-OUT	-
<ul> <li>Device 2 (EtherCAT)</li> </ul>		IO Function Port 3 Pin 2 IO Function Port 4 Pin 2	Digital_OUT Digital_OUT	0x00001201 0x00001201		IOL_O_1byte IOL_O_2byte	0x00001202 0x00001203	IO-Link 1 Byte Output Process Data IO-Link 2 Byte Output Process Data	
Image Info		IO Function Port 5 Pin 2 IO Function Port 6 Pin 2	Digital_OUT Digital_OUT	0x00001201 0x00001201		OIOL_O_4byte	0x00001204 0x00001205	IO-Link 4 Byte Output Process Data IO-Link 6 Byte Output Process Data	
<ul> <li>SyncUnits</li> <li>Inputs</li> </ul>		IO Function Port 7 Pin 2	Digital_OUT	0x00001201		OIOL O 8byte	0x00001206	IO-Link 8 Byte Output Process Data	
Cotputs     Frm0Ctrl						OIOL_0_16byte	0x00001207	IO-Link 16 Byte Output Process Data	
Ev FrmOWcCtrl DevCtrl						10L_0_24byte	0x00001209	IO-Link 24 Byte Output Process Data	~
<ul> <li>DevCtrl</li> <li>InfoData</li> <li>Box 1 (FNI ECT-508-105-M)</li> </ul>	-	1			_	A101.0.23hida	0-00001203	10 Link 23 Ride Outnut Bracese Data	

Module slot PIN2 data setting:

If the slave station module has output signal access, the master station module PIN2 must be opened, and assigned in the program ----- configuration is complete! When the variable Output PIN2 is set to 1, PIN2 is enabled; when it is set to 0, PIN2 is disabled

TwinCAT Project27 - TcXaeShell	
文件(F) 編輯(E) 视图(V) 项目(P) 生成(B) 调试(D)	TwinCAT TwinSAFE PLC 图队(M) Scope 工具(T
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<ul> <li>Box 1 (FNI ECT-508-105-M)</li> </ul>	
Digital Input Mapping	
IO-Link Device State	
🔺 🧧 Digital Output Mapping	
Output Pin 4	
🔺 📂 Output Pin 2	
Cutput Pin 2[0]	
Output Pin 2[1]	
Cutput Pin 2[2]	
Output Pin 2[3]	
Output Pin 2[4]	
Output Pin 2[5]	
Output Pin 2[6]	
Uutput Pin 2[7]	
P W Module 1 (IOL IO 8 8byte )	
<ul> <li>Wiodule 2 (IOL_IO_8_8byte)</li> </ul>	
P IO-Link Input process data mapping	ng
Internet output process data mapping and the second sec	ping

Module slave station data setting (COE setting): Find the module FNI-ECT-508-105-M under the resource manager and click COE-On-line

1				····-		
	-	81(	00:0	IO-Link Service Data Port.0		> 6 <
			8100:01	Index	RW	0x0041 (65)
			8100:02	Subindex	RW	0x00 (0)
			8100:03	Length	RW	0x02 (2)
			8100:04	Data	RW	FF FF 00 00 00 00 00 00 00
			8100:05	Control	RW	0x00 (0)
		i	8100:06	Error Code	RO	0x0000 (0)
	÷	81	10:0	IO-Link Service Data Port.1		> 6 <
	÷	812	20:0	IO-Link Service Data Port.2		> 6 <
€ 813		81	30:0	IO-Link Service Data Port.3		> 6 <
		814	40:0	IO-Link Service Data Port.4		> 6 <
	€ 8150:0		50:0	IO-Link Service Data Port.5		> 6 <
	÷	81(	60:0	IO-Link Service Data Port.6		> 6 <
	+	817	70:0	IO-Link Service Data Port.7		> 6 <

- 8100: 0 :master Pro O Port Data Settings
- 8110: 0 :master Pro 1 Port Data Settings
- 8120: 0 :master Pro 2 Port Data Settings
- 8130: 0 :master Pro 3 Port Data Settings
- 8140: 0 :master Pro 4 Port Data Settings
- 8150: 0 :master Pro 5 Port Data Settings
- 8160: 0 :master Pro 6 Port Data Settings
- **8170: 0** :master **Pro 7** Port Data Settings

Set parameters and data according to the manual of the slave station moduleIndex: index Subindex: sub-index Length: Data length BYTE Type (When reading or writing, fill in the data length first) Data: data mapping Control: 1= read 2= to write Error code: error code IOLINK slave station configuration (this function is online configuration, the slave station and the master station should maintain normal communication)

(1) When you need to configure the IOLINK slave station, you should write to set Pin4 as the IOLINK function, and write Control 2 to complete the configuration of the slave station;

Note that the input value of Index and Subindex is decimal, and the input and output value of Data is hexadecimal;

(2) Commonly used indexing functions of FAS slaves:

Example: a. Input and output configuration: Index =65, Subindex=0; the following figure is an example of slave station configuration:



For example: the DI/DO requirement of the slave station module is full output (FFFF) Index=65 (from the station manual) Subindex=0 Length=2 Data=FFFF Contex=1=2 - Fortex

Control=2 →Enter

The writing is successful, and the module configuration becomes full output

## 5.1.2 In Huichuan AM600-CPU1608TP/TN integrated

Here you will see an example of how to integrate this module into Inproshop, taking AM600-CPU1608TP/TN PLC as an example:

Add new project:

Select the corresponding PLC model for the new project



Add module:

Double-click the network configuration----click to import ECT file----select the master station description file FNI-ECT-508-105-M



Click PLC----check the EtherCAT master station----choose the device on the left side ------right click ETHERCAT-----scan the device



Module slot data:

Double-click the left device frame module FNI-ECT-508-105-M ------Slot configuration -----Select the required slot data to configure Slot  $0^7$  is PIN4 function Slot  $8^15$  For PIN2 function



#### Module slot PIN2 data setting

If the slave station module has output signal access, the PIN2 of the master station module must be opened, and assigned in the program----- configuration is complete! When the variable Output PIN2 address is set to 1, PIN2 is enabled; when set to 0, PIN2 is disabled



#### 6 appendix

## ${\bf 6.1.}$ Included materials FNI ECT contains the following components

• I/O-blocks

4 blind plugs M12

- Ground busbar
- Thread M4x6
- 20 tags

6.2. order code

	FNI MPL-50x-105-N
FAS Network Interface	
Various industrial communication protocols —	
Features	
506= IP 67 IO-Link master module, 8 IO-Link ports Port4~7 no 10 output	uts
508 = IP 67 IO-Link master module, 8 IO-Link ports	
Version	
105 = show version	
Mechanical parameters	
M = die-cast zinc housing	
Data transmission: 2xM12xl female thread	
Power Connection: Male/Female (L-Code)	
Sensor connection: 8 x M12xl female thread	

#### $6.3\ {\rm ordering}\ {\rm information}$

Product order code	order code
FNI ECT-508-105-M	006B11