XINJE

EtherCAT

PROFINET

XF Series Blade IO System

Ultrathin | Large capacity | High timeliness | Stable and reliable

Automation Trust Partner

XINJE Wechat

XINJE

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XF Series

New Generation Distributed I/O System

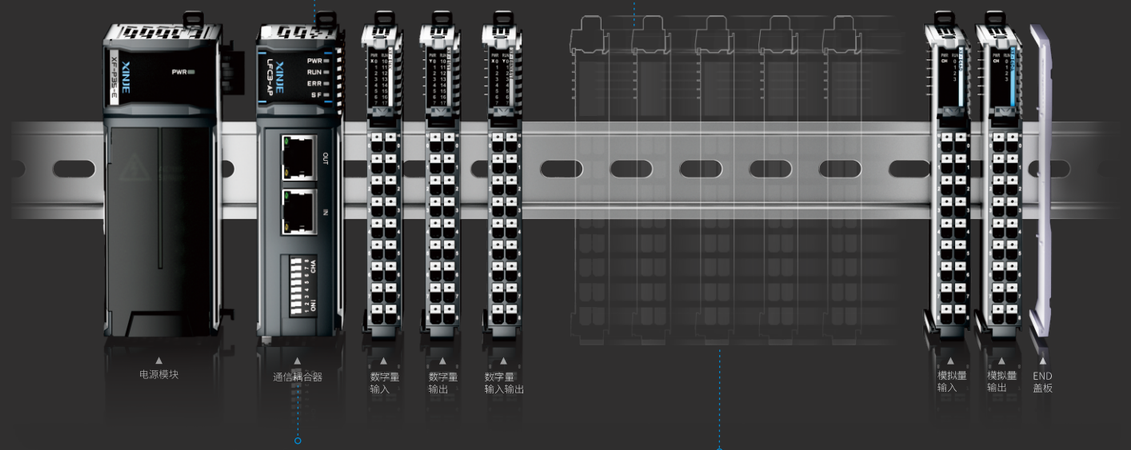
- Supports multiple system configurations
- Rich module types and large capacity expansion
- Simple installation and easy maintenance
- Blade style design, visible thin at a glance
- High reliability design, connection stabilization and high real-time performance

Multi system composition

Support communication with EtherCAT and PEOFINET bus protocol master station devices

Rich IO models

Supports digital, analog, temperature, communication, technology, and pulse units



Low maintenance costs

Modules can be self updated through the CPU unit or communication coupler to reduce the field debugging maintenance cost

Large capacity expansion

Supports **32** expansion units

Module type differentiation

Digital input | Digital output | Digital input and output | Analog input | Analog output

*Note 1 : The Profinet bus function is expected to be launched in September 2023.
*Note 2 : Temperature, communication, technology, and pulse units will be launched in the later stage. Stay tuned!

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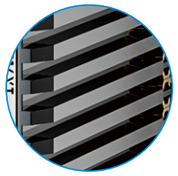
Easy maintenance

Detachable terminal block, replacement of modules of the same model, no need to disassemble, saving maintenance time.



High reliability and high real-time performance

Clip type backplane communication connector for more stable connection and improved overall reliability;
High speed backplane and ensuring real time communication.

Tool free installation

Using PUSH IN terminals, the wiring is simple and direct, and tool free installation is required.

XF series IO saves 1/2 installation space compared to XL series IO.

Ultra thin body

Blade structure design, the thickness of the 1U module is as thin as **12mm**, save more installation space, suitable for harsh volume application scenarios.

Comprehensive industry applications

Advanced manufacturing field


Lithium battery


Photovoltaic


Semiconductor


3C


Electron


Logistics


Laser

Traditional industries


Spin


Printing


Package

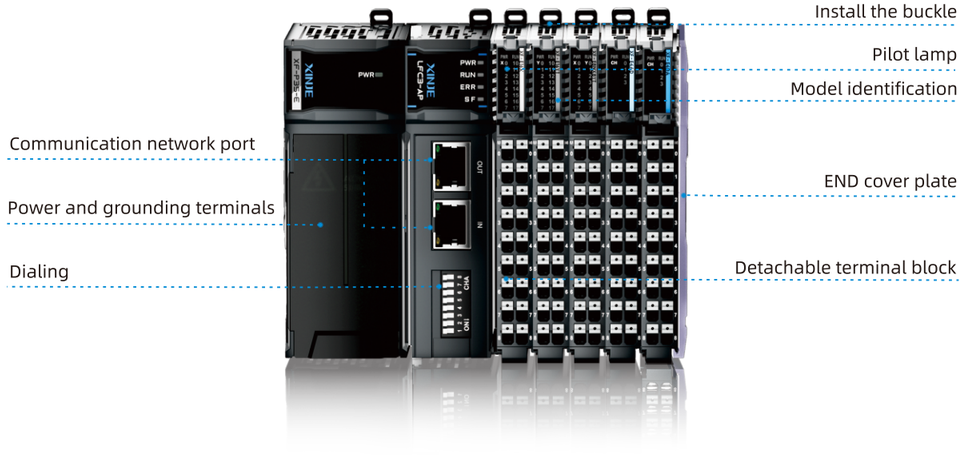

Filling


Heating and ventilation


Machine tool


Engineering equipment

Product composition



IO System Model Naming

I/O unit - DIO module model naming

XF- E ○ □ X □ ○ Y □
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Series name

Symbol	Name
XF	XF series expansion module

② Referral extension module

Symbol	Expansion module
E	Right expansion module

③ Input channel

Symbol	Input channel
4	4 channels
8	8 channels
16	16 channels
32	32 channels
64	64 channels

④ Input point type

Symbol	Input point type
Empty	Digital input PNP&NPN compatible
N	Digital input NPN type
P	Digital input PNP type

⑤ Type

Symbol	Type
X	Digital input

⑥ Output channel

Symbol	Output channel
4	4 channels
8	8 channels
16	16 channels
32	32 channels
64	64 channels

⑦ Output point type

Symbol	Output point type
Empty	Digital output NPN type
P	Digital output PNP type

⑧ Type

Symbol	Type
Y	Digital output

⑨ Output point type

Symbol	Output point type
T	Digital output transistor type
R	Digital output relay type

I/O unit - AIO module model naming

XF- E ○ AD □ DA - ○ - □
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series name

Symbol	Name
XF	XF series expansion module

② Referral extension module

Symbol	Expansion module
E	Right expansion module

③ Input channel

Symbol	Input channel
1	1 channel
2	2 channels
4	4 channels
6	6 channels
8	8 channels

④ Type

Symbol	Input point type
AD	Represents analog voltage or current input

⑤ Output channel

Symbol	Output channel
1	1 channel
2	2 channels
4	4 channels
6	6 channels
8	8 channels

⑥ Type

Symbol	Output point type
DA	Indicating analog voltage or current output

⑦ Analog type

Symbol	Output point type
Empty	Indicating current and voltage type
A	Indicating current type
V	Indicating voltage type

⑧ Module type

Symbol	Output point type
Empty	Ordinary type
H	Interchannel isolation
S	High precision
U	High speed

LFC3-AP

High performance EtherCAT communication coupler

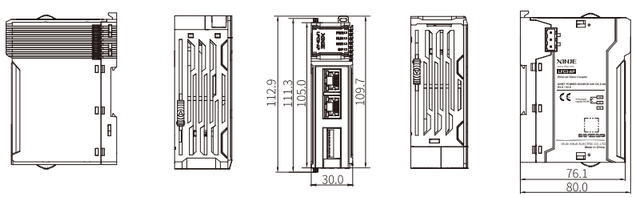
Product Features

1. Blade expansion, diversified combination
2. Compact structure, saving installation space
3. Straight plug terminals, easy and reliable wiring
4. Support firmware upgrade for network ports
5. Support hardware static station number settings
6. High speed bus microsecond response
7. Maximum support for 32 expansion IO modules

Product specification

Project	Specification
Model	LFC3-AP
Rated voltage	DC24V
Voltage allowable range	DC21.6V~26.4V
Input Current	120mA DC24V
Allow instant power outage time	10ms DC24V
Inrush Current	10A DC26.4V
Power protection	Anti reverse protection, overcurrent protection, surge absorption
Network protocol	EtherCAT
Single AP process data	Input maximum 1024 bytes, output maximum 1024 bytes
Network interface	2 RJ45 ports
Physical layer	100BASE-TX
Synchronization cycle	Support 250us, 500us, 1000us, 2000us, 4000us
Connection Rate	100Mbps, full duplex
Transmission distance	≤ 100m between two nodes
Topological structure	Linetype
Transmission medium	Category 5 and above
No configuration required when replacing devices	Support (EtherCAT modules of the same type)
Number of expansion modules	Supports 32 modules
Firmware upgrade	Support
Address setting	Configured by dial switch (0-255) or assigned by the main station

Product Dimensional Drawing (Unit: mm)



XF-E16X

Ordinary digital input module

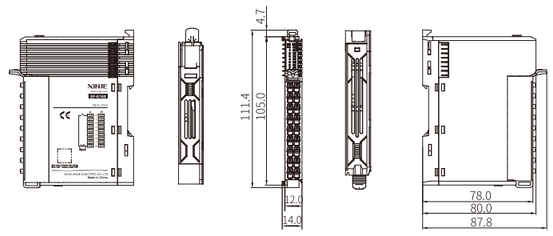
Product Features

1. 16 channel digital input
2. NPN, PNP bipolar input
3. 12mm width design

Product specification

Project	Specification
Model	XF-E16X
Input points	16
Rated input voltage	DC24V
Rated input current	6mA
Input ON voltage	11V
Input ON current	2.5mA
Input OFF voltage	5V
Input OFF current	1mA
Input resistor ON→OFF response time (hardware)	20us
Input resistor OFF→ON response time (hardware)	100us

Product Dimensional Drawing (Unit: mm)



XF-E16YT

Ordinary digital output module

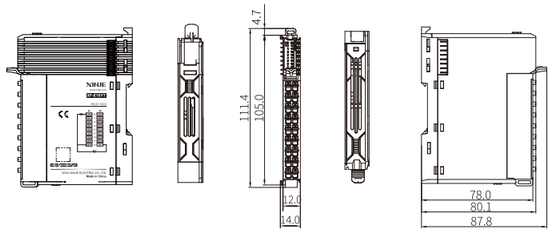
Product Features

1. 16 channel digital output
2. NPN transistor output
3. 12mm width design

Product specification

Project	Specification
Model	XF-E16YT
Output channel	16
Rated load voltage	DC24V(DC10.2V-28.8V)
Maximum load current	0.5A/1 point, 4A/module
Surge current protection	Support
Leakage current at OFF	Below 0.1mA
Maximum voltage drop at ON	0.5V-1V
Output ON→OFF response time (hardware)	0.1ms
Output OFF→ON response time (hardware)	0.1ms
Derating	Derate by 50% when operating at 55 ° C (while the output current of ON does not exceed 2A), or by 10 ° C when the output point is fully ON

Product Dimensional Drawing (Unit: mm)



XF-E8NX8YT

Ordinary digital input/output module

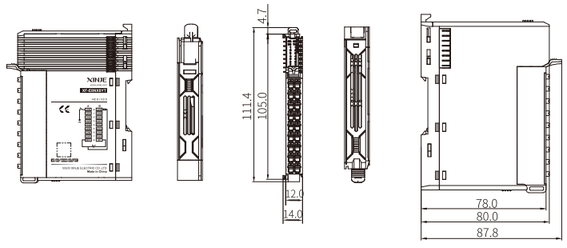
Product Features

1. 8 channel digital input
2. NPN input
3. 8 channel digital output
4. NPN transistor output
5. 12mm width design

Product specification

Project		Specification
Model		XF-E8X8YT
Input specification	Input channel	8
	Input type	NPN
	Rated input voltage	DC24V
	Rated input current	6 mA
	Input ON voltage	11V
	Input ON current	2.5 mA
	Input OFF voltage	5V
	Input OFF current	1 mA
	Input resistor ON→OFF response time (hardware)	20 us
	Input resistor OFF→ON response time (hardware)	100 us
Output specification	Output channel	8
	Output type	Transistor (NPN)
	Rated load voltage	DC24V(DC10.2V~28.8V)
	Surge current protection	Support
	Leakage current at OFF	Below 0.1mA
	Maximum voltage drop at ON	0.5A
	Output ON→OFF response time (hardware)	0.1 ms
	Output OFF→ON response time (hardware)	0.1 ms

Product Dimensional Drawing (Unit: mm)



XF-E4AD

Ordinary analog input module

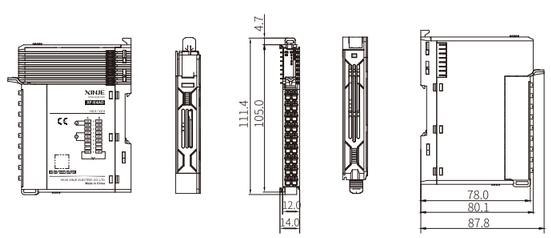
Product Features

1. 4 channel analog input
2. Channel conversion speed 60us/channel
3. 16 bit resolution
4. Maximum 0.2% error
5. Current and voltage bipolar input
6. 12mm width design

Product specification

Project			Specification
Input channel			4
Analog input range (rated)	Voltage	Input range	0V～5V（0～64000）
			0V～10V（0～64000）
			-5V～5V（-32000～32000）
			-10V～10V（-32000～32000）
			1V～5V（12800～64000）
	Current	Input range	0mA～20mA（0～32000）
			4mA～20mA（12800～64000）
			-20mA～20mA（-32000～32000）
Conversion Speed			**60us/CH**
Resolution ratio			**1/64000（16Bit）**
Module power supply	Rated input		**DC24V±10%，150mA**
	Protect		**Reverse polarity protection**
Error	Ordinary temperature 25℃**±5**℃		±0.1%（25±5**℃**）
	Full temperature end -20~55℃		±0.2%
Isolate			Channel non isolated, power isolated

Product Dimensional Drawing (Unit: mm)



XF-E4DA

Ordinary analog output module

Product Features

1. 4 channel analog output
2. Channel conversion speed 60us/channel
3. 16 bit resolution
4. Maximum 0.2% error
5. Current and voltage bipolar output
6. 12mm width design

Product specification

Project			Specification
Output channel			4
Analog input range (rated)	Voltage	Input range	0V～5V
			0V～10V
			-5V～5V
			-10V～10V
			1V～5V
	Current	Input range	0mA～20mA
			4mA～20mA
Conversion Speed			60us/CH
Resolution ratio			1/64000（16Bit）
Module power supply	Rated input		DC24V±10%，150mA
	Protect		Reverse polarity protection
Error	Ordinary temperature 25℃**±5**℃		±0.1%（25±5**℃**）
	Full temperature end -20~55℃		±0.2%
Isolate			Channel non isolated, power isolated

Product Dimensional Drawing (Unit: mm)