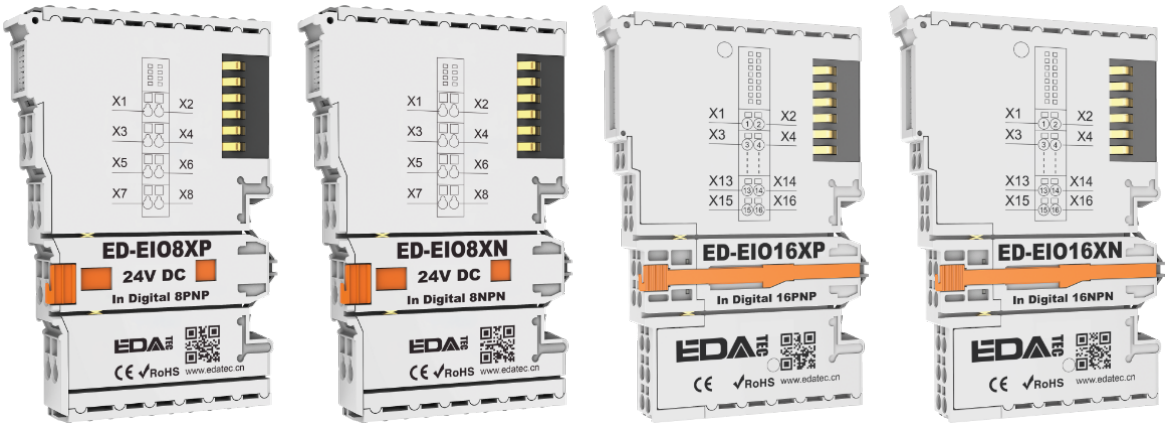


EtherCAT Digital Input Modules

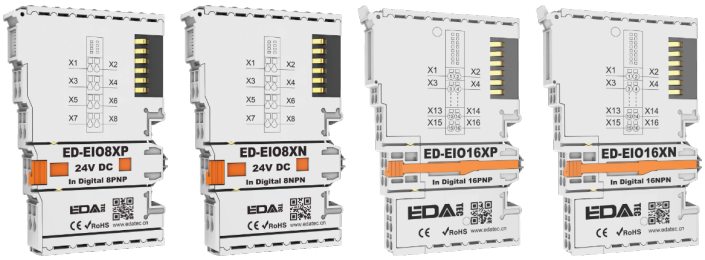
Datasheet

by EDA Technology Co., Ltd

built: 2025-12-22

EtherCAT Digital Input Modules

- 8-channel digital input or 16-channel digital input, equipped with the LED for an operation check
- Input type support PNP or NPN
- Opto-coupler isolated input
- Plug-in construction, DIN-rail installation
- PT removable terminal block for screwless wiring
- Support cascading up to 32 modules without additional power supply



Specifications

Input				
Input Type	PNP		NPN	
Number of input signal channels	8	16	8	16
Power Dissipation	25mA	35mA	25mA	35mA
Rated Input Voltage	24V DC (±25%)		0V DC (±3%)	
Input Logic 1 Signal	15V~30V		-3V~3V	
Input Logic 0 Signal	-3V~3V		15V~30V	
Input Filter	Configurable from 1ms to 10ms, the default is 3ms			
Isolation Voltage	AC 500V			
Isolation Type	Opto-coupler Isolation			

Software	
Fieldbus	EtherCAT
EtherCAT Master Software Platform	CODESYS

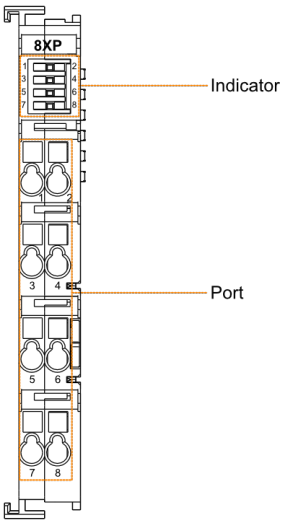
Mechanical Characteristics	
Dimensions	100mm x 67.6mm x 14.8 mm

Mechanical Characteristics	
Weight	About 51g
Wiring Specifications	0.2mm² ~ 1.5mm²
Wiring Method	Screwless
Installation	DIN-rail installation

Environmental & Regulatory	
Operating Temperature	-10℃ ~ 55℃
Storage Temperature	-20℃ ~ 85℃
Ambient Humidity	5% ~ 95% (non-condensing)
Air Pressure	≥ 795 hPa (altitude ≤ 2000 m), compliant with IEC 61131-2
Overvoltage Categories	I
Certifications	CE, RoHS

Interface Definition

8-channel digital input module (PNP):

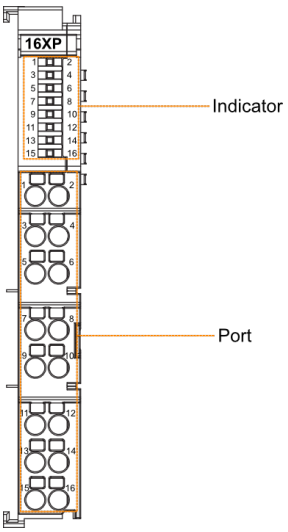


Indicator			
led No.	Input	Color	Description
1~8	X1~X8	Green	8 Indicators correspond to X1~X8, which are independent of each other. The states of indicators are on and off. • on: A high level signal received

Indicator			
			• off: No input signal

Port			
Pin No.	Input	Pin No.	Input
1	X1	2	X2
3	X3	4	X4
5	X5	6	X6
7	X7	8	X8

16-channel digital input module (PNP):

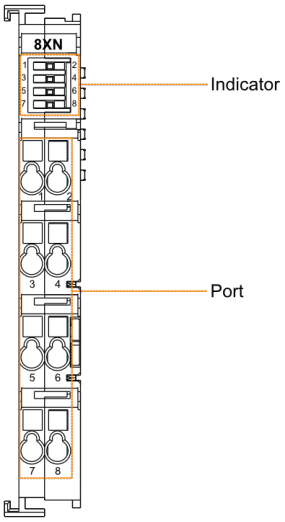


Indicator			
led No.	Input	Color	Description
1~16	X1~X16	Green	16 Indicators correspond to X1~X16, which are independent of each other. The states of indicators are on and off. • on: A high level signal received • off: No input signal

Port			
Pin No.	Input	Pin No.	Input
1	X1	2	X2
3	X3	4	X4
5	X5	6	X6
7	X7	8	X8

Port			
9	X9	10	X10
11	X11	12	X12
13	X13	14	X14
15	X15	16	X16

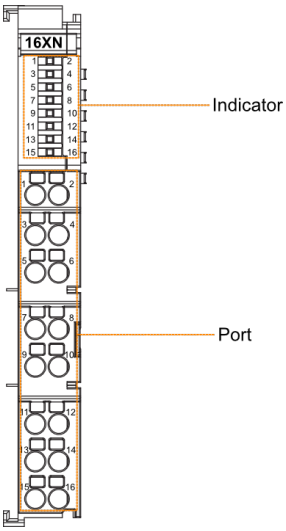
8-channel digital input module (NPN):



Indicator			
led No.	Input	Color	Description
1~8	X1~X8	Green	8 Indicators correspond to X1~X8, which are independent of each other. The states of indicators are on and off. • on: A low level signal received • off: No input signal

Port			
Pin No.	Input	Pin No.	Input
1	X1	2	X2
3	X3	4	X4
5	X5	6	X6
7	X7	8	X8

16-channel digital input module (NPN):



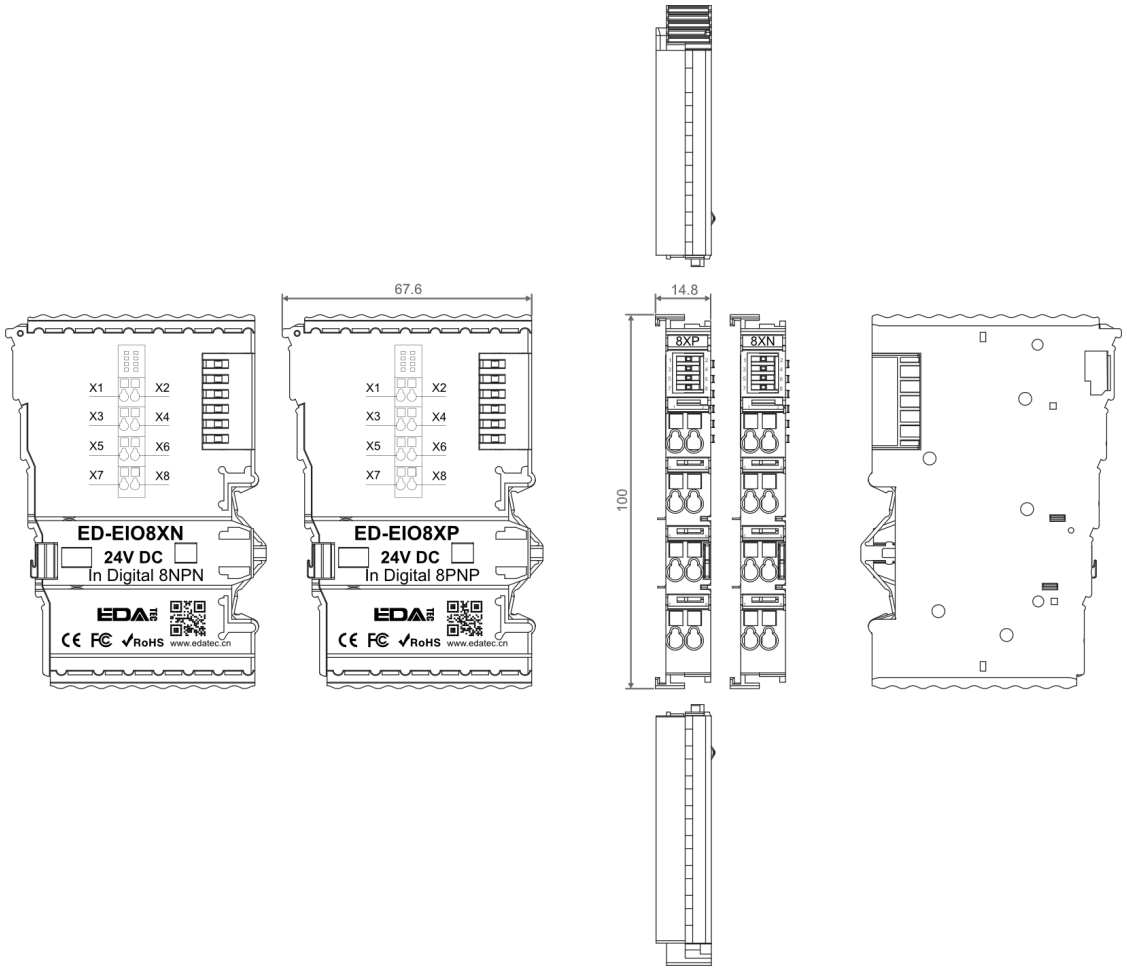
Indicator			
led No.	Input	Color	Description
1~16	X1~X16	Green	16 Indicators correspond to X1~X16, which are independent of each other. The states of indicators are on and off. • on: A low level signal received • off: No input signal

Port			
Pin No.	Input	Pin No.	Input
1	X1	2	X2
3	X3	4	X4
5	X5	6	X6
7	X7	8	X8
9	X9	10	X10
11	X11	12	X12
13	X13	14	X14
15	X15	16	X16

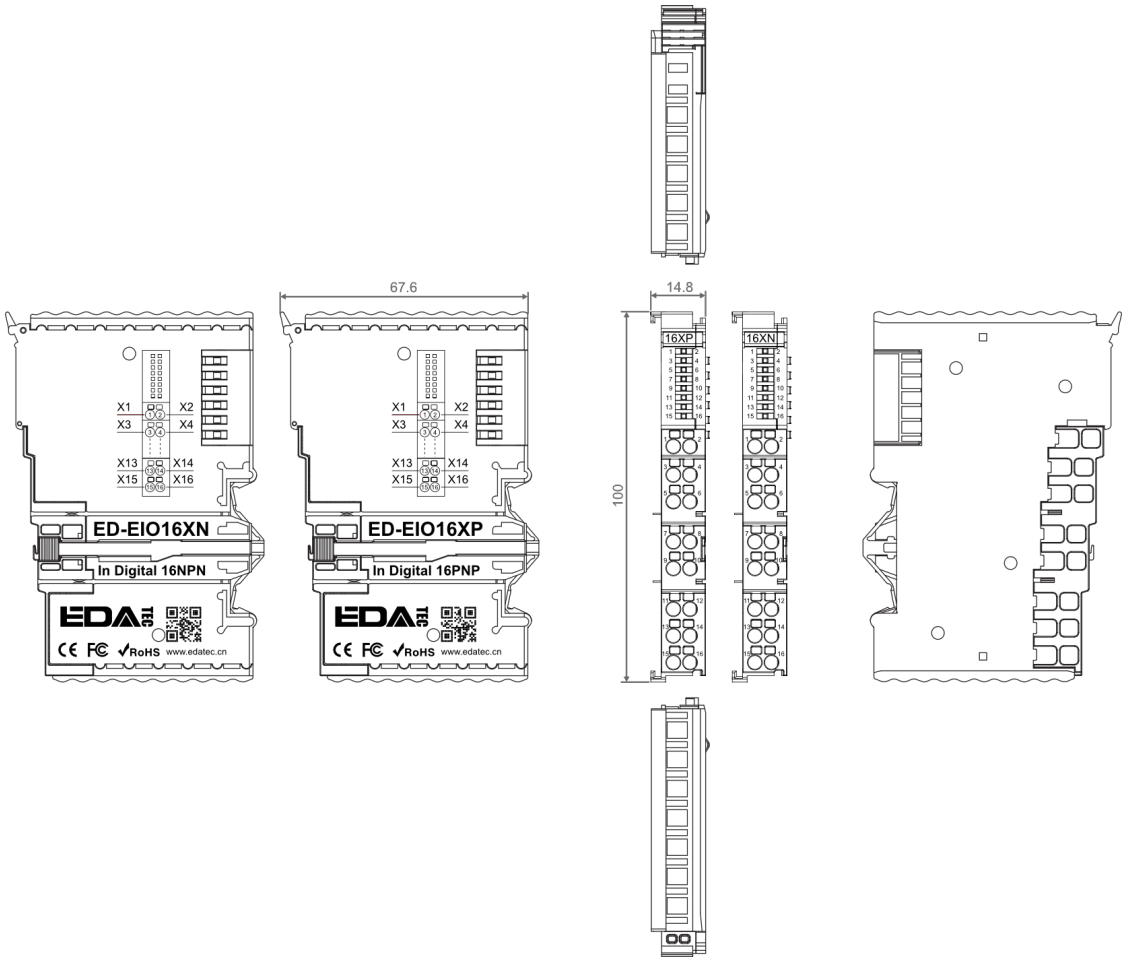
Dimensions

Unit: mm

8-channel digital input module:



16-channel digital input module:



Ordering Code

Model	Description
ED-EIO8XP	8-channel digital input module (PNP)
ED-EIO8XN	8-channel digital input module (NPN)
ED-EIO16XP	16-channel digital input module (PNP)
ED-EIO16XN	16-channel digital input module (NPN)

Adapted PLC Unit or EtherCAT Coupler

Model	Description
ED-PLC2010	EtherCAT Master based on CODESYS
ED-EIOBRG-EC	EtherCAT Coupler

Packing List

- 1 x EtherCAT Digital Input Module

Installation

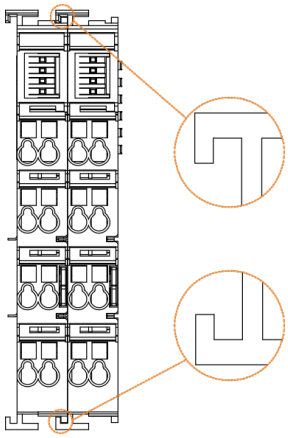
TIP

- DIN-rail is not included in the box, the following is intended as an installation illustration only.
- Before you start installing, please turn off the power to the module.
- If you encounter a situation where the module cannot be installed, please do not force the installation to avoid damaging the module.

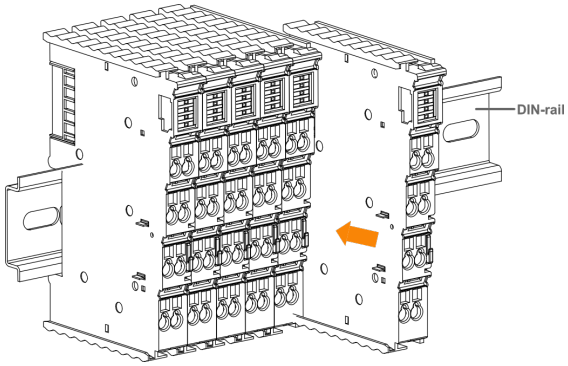
Steps

The following is an example of the installation of an 8-terminal module only.

1. Align the notches in the I/O module.



2. Secure the I/O module to the DIN-rail by pushing the I/O module in the direction of the arrow onto the DIN snap pin.

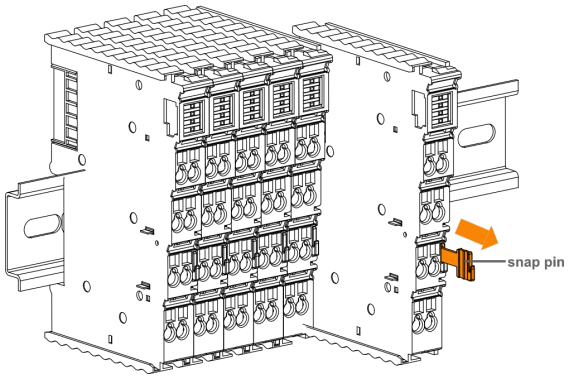


Dismantling

TIP

- Before you start installing, please turn off the power and disconnect the cable to the module.
- If you encounter a situation where the module cannot be installed, please do not force the installation to avoid damaging the module.

Steps

The following is an example of the dismantling of an 8-terminal module only.

1. Hold the snap pin of the I/O module by hand and then pull it out in the direction of the arrow to disengage the module from the DIN-rail.