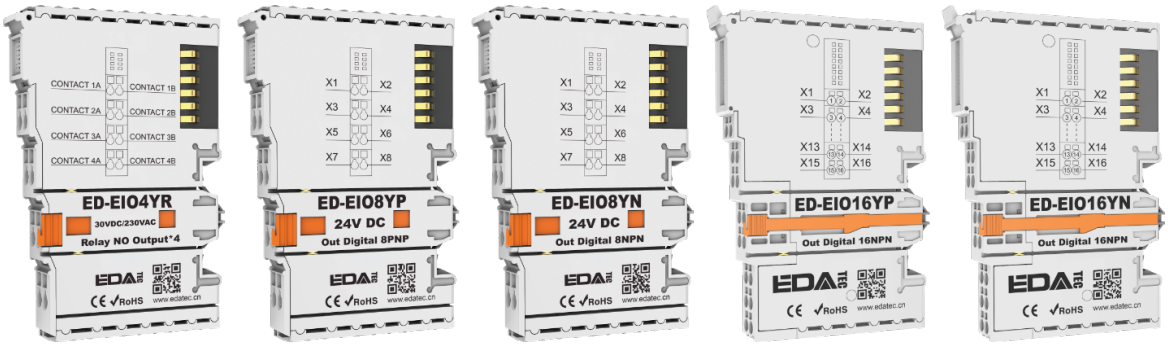


EtherCAT Digital Output Modules

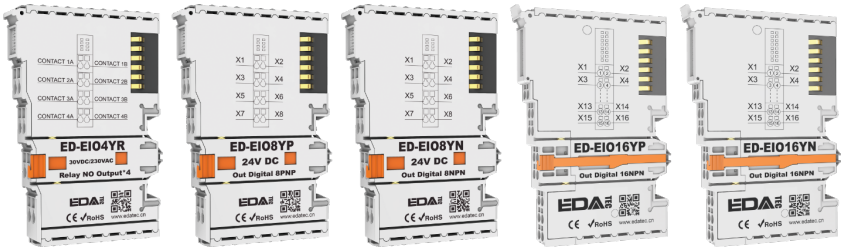
Datasheet

by EDA Technology Co., Ltd

built: 2025-12-22

EtherCAT Digital Output Modules

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



Specifications

Output (Relay)				
Number of output signal channels	4			
Power Dissipation	45mA			
Driving Ability	230V AC or 30V DC			
Load Type	Resistive load, Inductive load, Lamp load			
Isolation Voltage	AC 500V			
Isolation	Opto-coupler Isolation			

Output (Transistor)				
Signal Type	PNP		NPN	
Number of input signal channels	8	16	8	16
Power Dissipation	66mA	106mA	66mA	106mA
Rated Output Voltage	24V DC (±25%)		0V DC (±3%)	
Driving Ability	Single-channel load 500mA			
Load Type	Resistive load, Inductive load, Lamp load			
Isolation Voltage	AC 500V			

Output (Transistor)	
Isolation Type	Opto-coupler Isolation

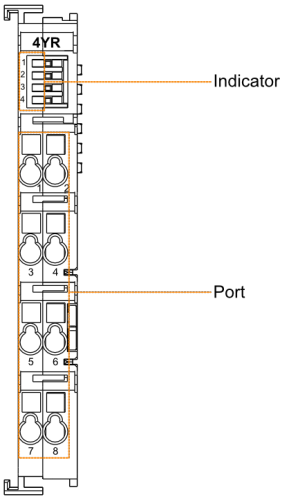
Software	
Fieldbus	EtherCAT
EtherCAT Master Software Platform	CODESYS

Mechanical Characteristics	
Dimensions	100mm x 67.6mm x 14.8 mm
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 and RoHS

Interface Definition

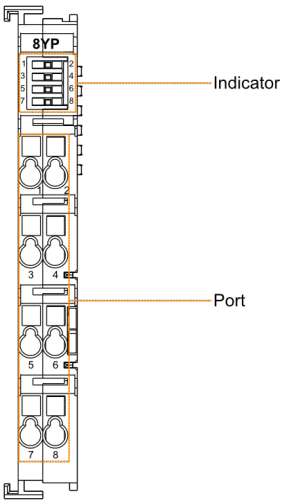
4-channel digital output module (Relay):



Indicator			
led No.	Output	Color	Description
1~4	CONTACT 1~CONTACT 4	Green	4 Indicators correspond to CONTACT 1~CONTACT 4, which are independent of each other. The states of indicators are on and off. • on: Relay is closed • off: Relay is open

Port			
Pin No.	Output	Pin No.	Output
1	CONTACT 1A	2	CONTACT 1B
3	CONTACT 2A	4	CONTACT 2B
5	CONTACT 3A	6	CONTACT 3B
7	CONTACT 4A	8	CONTACT 4B

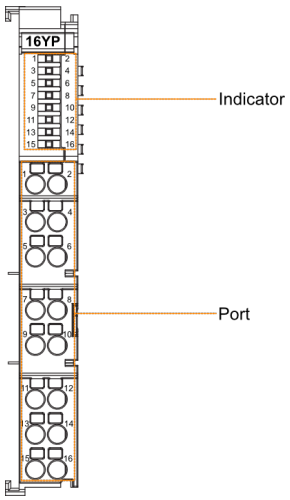
8-channel digital output module (PNP):



Indicator			
led No.	Output	Color	Description
1~8	Y1~Y8	Green	8 Indicators correspond to Y1~Y8, which are independent of each other. The states of indicators are on and off. • on: Output a high level signal • off: No output signal

Port			
Pin No.	Output	Pin No.	Output
1	Y1	2	Y2
3	Y3	4	Y4
5	Y5	6	Y6
7	Y7	8	Y8

16-channel digital output module (PNP):

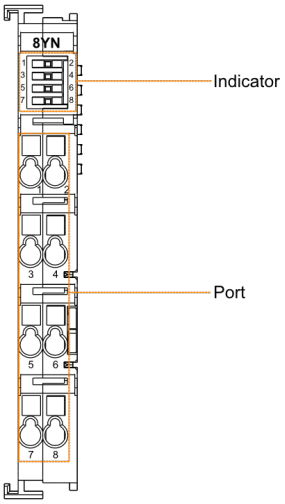


Indicator			
led No.	Output	Color	Description
1~16	Y1~Y16	Green	16 Indicators correspond to Y1~Y16, which are independent of each other. The states of indicators are on and off. • on: Output a high level signal • off: No output signal

Port			
Pin No.	Output	Pin No.	Output

Port			
1	Y1	2	Y2
3	Y3	4	Y4
5	Y5	6	Y6
7	Y7	8	Y8
9	Y9	10	Y10
11	Y11	12	Y12
13	Y13	14	Y14
15	Y15	16	Y16

8-channel digital output module (NPN):

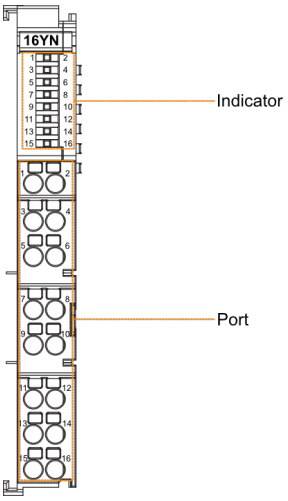


Indicator			
led No.	Output	Color	Description
1~8	Y1~Y8	Green	8 Indicators correspond to Y1~Y8, which are independent of each other. The states of indicators are on and off. • on: Output a low level signal • off: No output signal

Port			
Pin No.	Output	Pin No.	Output
1	Y1	2	Y2
3	Y3	4	Y4
5	Y5	6	Y6

Port			
7	Y7	8	Y8

16-channel digital output module (NPN):



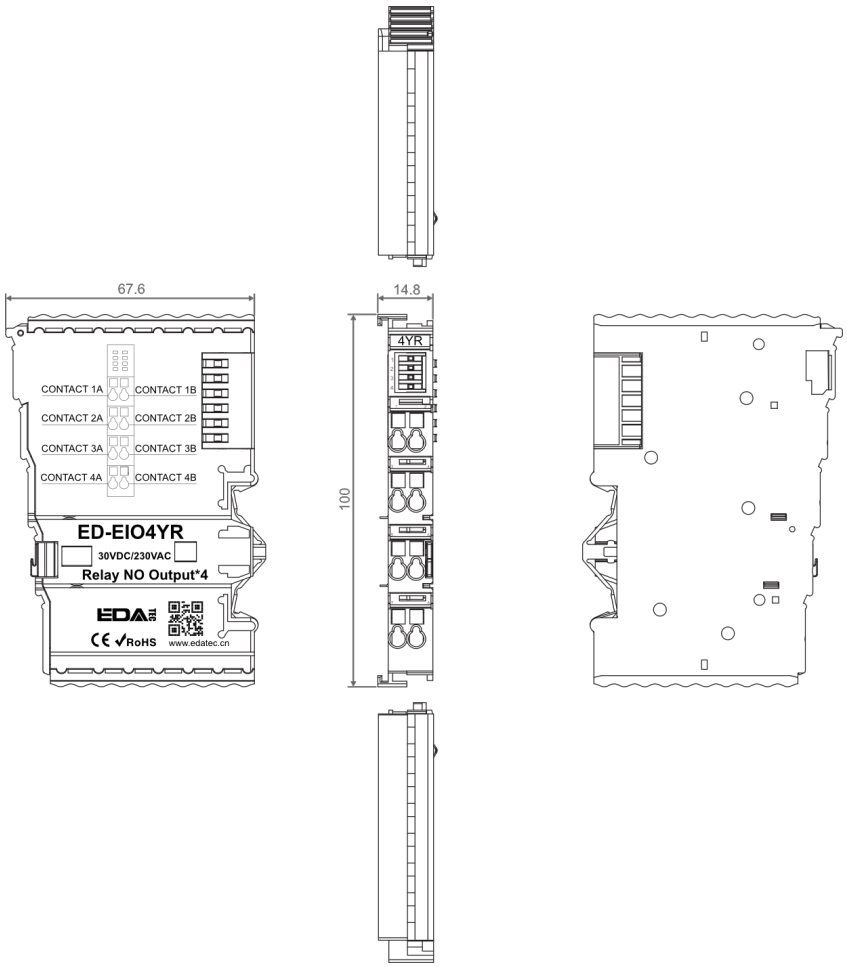
Indicator			
led No.	Output	Color	Description
1~16	Y1~Y16	Green	16 Indicators correspond to Y1~Y16, which are independent of each other. The states of indicators are on and off. • on: Output a low level signal • off: No output signal

Port			
Pin No.	Output	Pin No.	Output
1	Y1	2	Y2
3	Y3	4	Y4
5	Y5	6	Y6
7	Y7	8	Y8
9	Y9	10	Y10
11	Y11	12	Y12
13	Y13	14	Y14
15	Y15	16	Y16

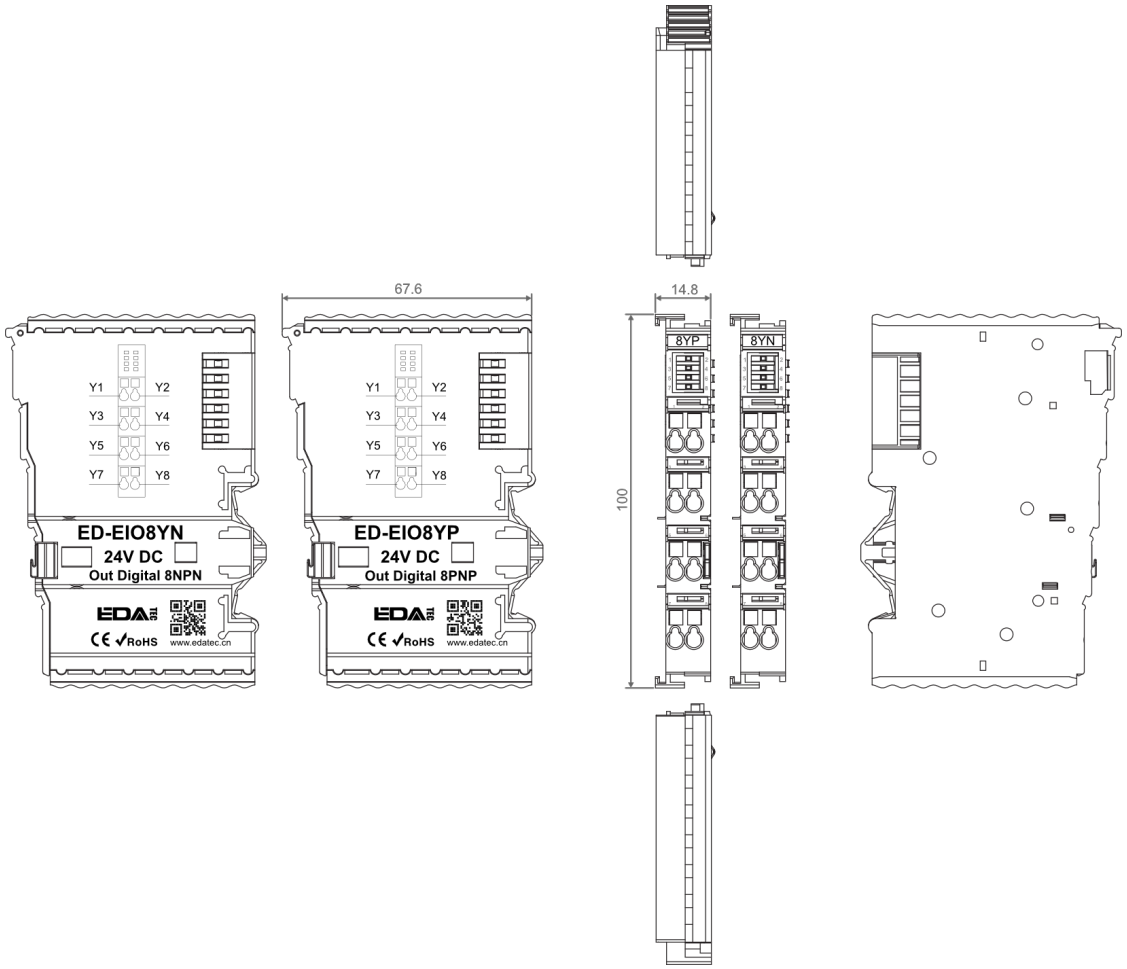
Dimensions

Unit: mm

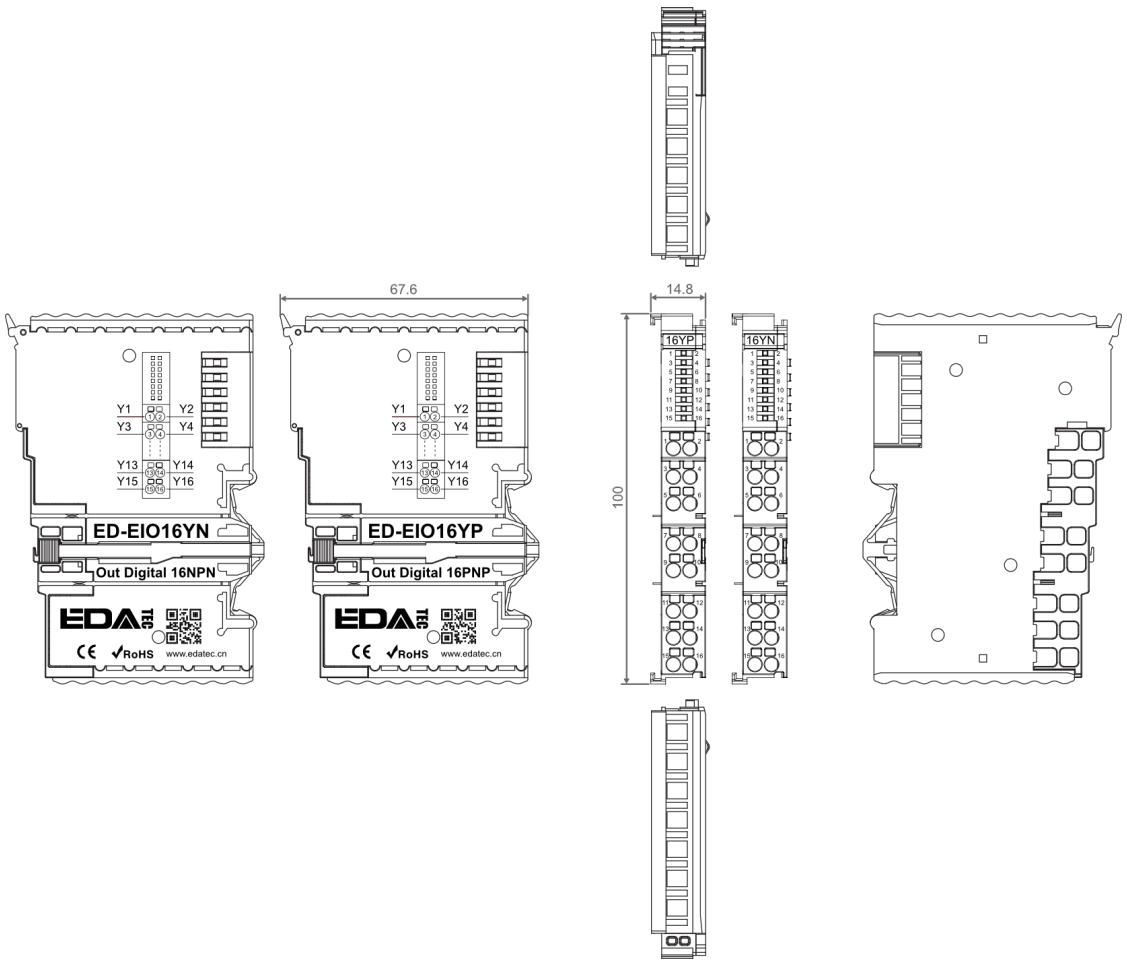
4-channel digital output module (Relay):



8-channel digital output module:



16-channel digital output module:



Ordering Code

Model	Description
ED-EIO4YR	4-channel digital output module (Relay)
ED-EIO8YP	8-channel digital output module (PNP)
ED-EIO8YN	8-channel digital output module (NPN)
ED-EIO16YP	16-channel digital output module (PNP)
ED-EIO16YN	16-channel digital output 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 Output Module

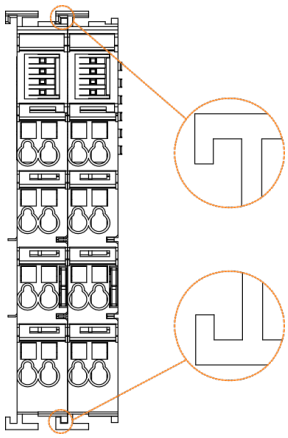
Installation

> 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.

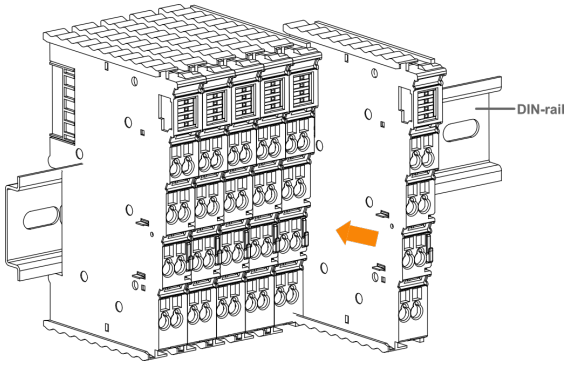
Steps

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

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



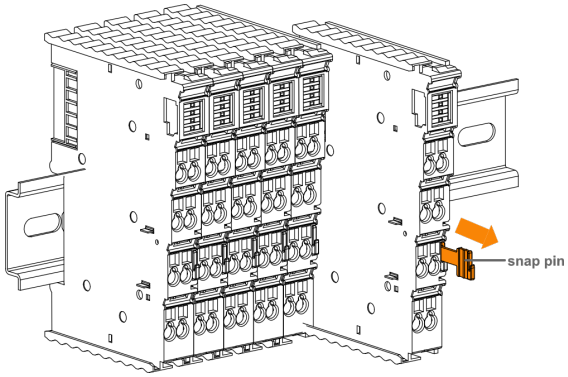
2. Secure the I/O module to the DIN-rail by pushing the I/O module in the direction of the arrow onto the DIN snap pin.



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.