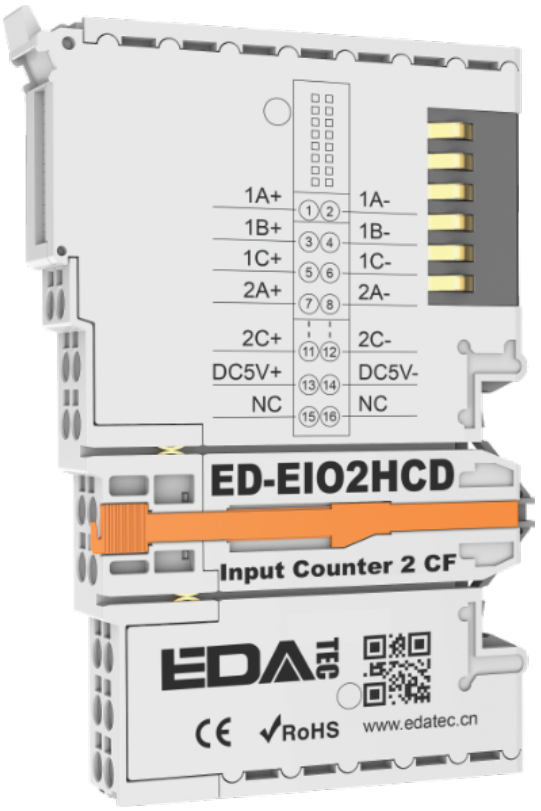


EtherCAT High-Speed Counter Module

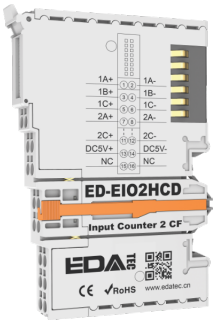
Datasheet

by EDA Technology Co., Ltd

built: 2025-12-22

EtherCAT High-Speed Counter Module

- 2-channel differential high-speed counter module
- Each channel is equipped with the LED for an operation check
- Encoder input 5V DC
- Up to 1MHz input frequency
- Plug-in construction, DIN-rail installation
- PT removable terminal block for screwless wiring
- Support cascading up to 32 I/O modules without additional power supply



Specifications

Input	
Number of Input Signal Channels	2
Pulse Output Mode	Differential (5V)
Powe Input	Voltage: 5V DC(±10%) Current Dissipation: 210mA
Input Frequency	Up to 1MHz
Counting Mode	Linear Counting, Ring Counting
Counting Range	Linear Counting: -2147483648~2147483648
Encoder Mode	X1 (default), X2, X4
Input Impedance	> 500KΩ
Isolation Type	Opto-coupler Isolation
Connection Distance	10m (Max)

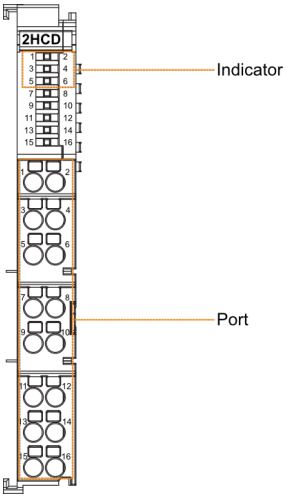
Software	
Fieldbus	EtherCAT
	CODESYS

Software	
EtherCAT Master Software Platform	

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



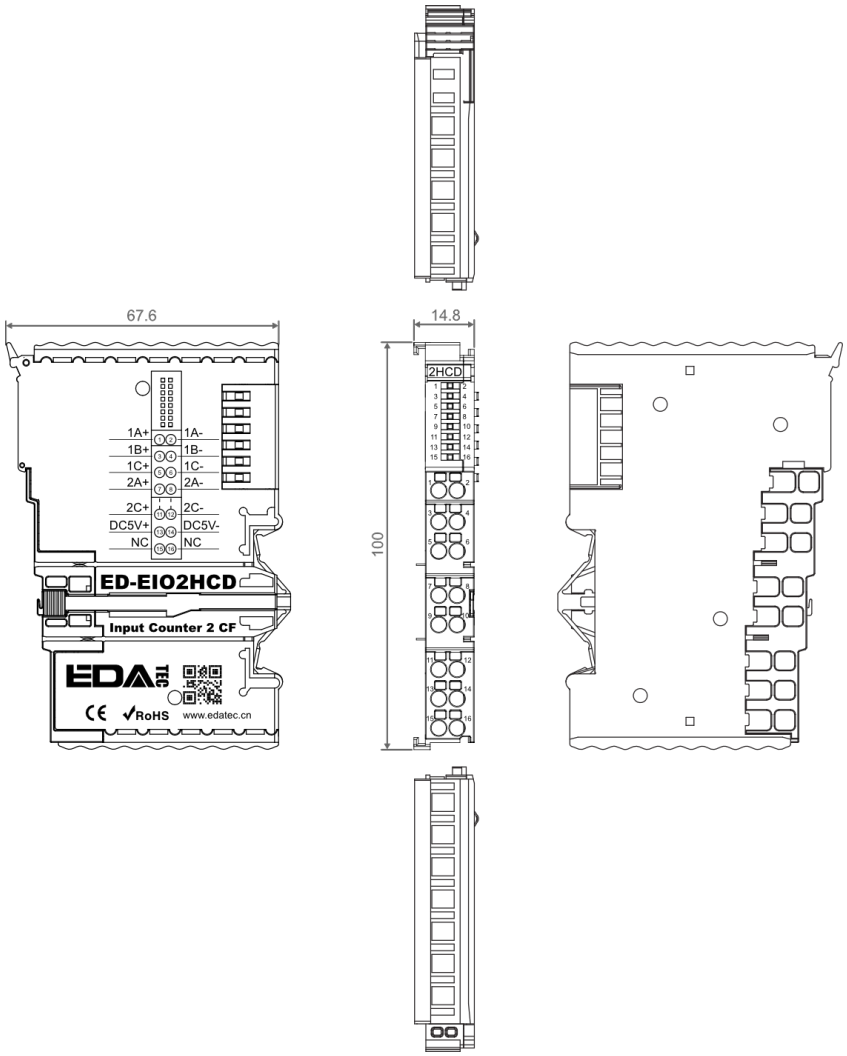
Indicator			
LED No.	Input	Color	Description

Indicator			
1~6	1, 3 and 5 corresponds to channel 1 2, 4 and 6 corresponds to channel 2	Green	The states of indicators are on, blink and off. • on (5, 6): The module is powered on • blink (1~4): An encoder signal input for corresponding channel • off(1~4): No signal input for corresponding channel • off (5, 6): An encoder signal input for corresponding channel

Port			
Pin No.	Input	Pin No.	Input
1	1A+	2	1A-
3	1B+	4	1B-
5	1C+	6	1C-
7	2A+	8	2A-
9	2B+	10	2B-
11	2C+	12	2C
13	DC5V+	14	DC5V-
15	NC	16	NC

Dimensions

Unit: mm



Ordering Code

Model	Description
ED-EIO2HCD	2-channel High-Speed Counter Module

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 High-Speed Counter Module

Installation

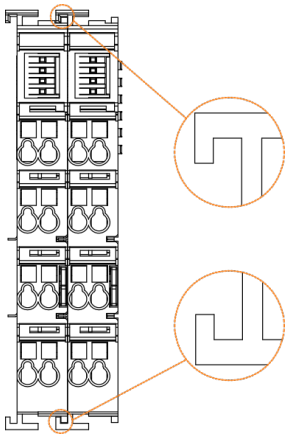
TIP

- 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.

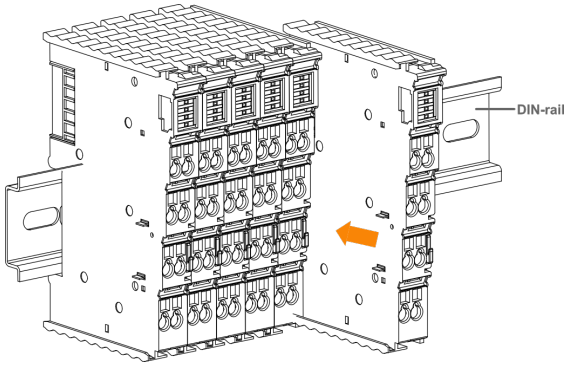
Steps

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.

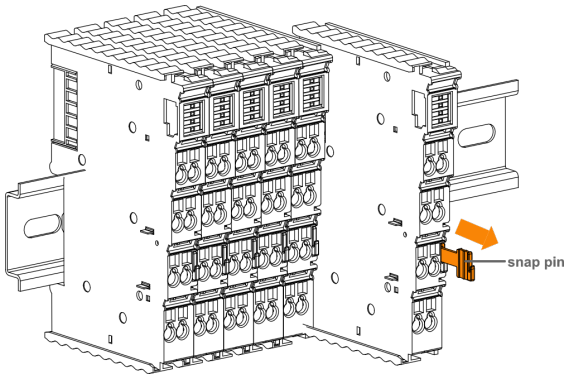


Dismantling

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.

Step

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.