



EtherCAT Coupler

Datasheet

by EDA Technology Co., Ltd

built: 2025-12-22

EtherCAT Coupler

- EtherCAT Slave
- 2 x 100Mbps Ethernet ports
- Up to 100m transmission distance
- Support cascading up to 32 I/O modules
- Support cascading up to 65534 EtherCAT terminals



Specifications

Communication Parameters	
Fieldbus	EtherCAT
EtherCAT Master Software Platform	CODESYS
Adapter Type	Slave node
Mac/IP Address	Not needed
Expand the number of I/O	≤32
Maximum input bytes	1024 Byte
Maximum output bytes	1024 Byte
Bus Rate	100Mbps
Bus Interface	2 x RJ45
Distance Between Stations	≤100m
System Power	DC 24V (±20%)
System Current	2A (Max)
Power for I/O Module	DC 24V (±20%)

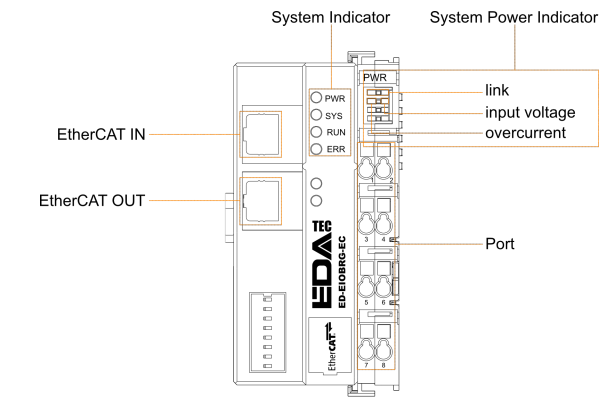
Communication Parameters	
Current for I/O Module	10A (Max)

Protection Parameter	
System Isolation Voltage	AC500V
Reverse Polarity Protection	Support
Overcurrent Protection	System power: support I/O power: not support
Overvoltage Protection	Support

Mechanical Characteristics	
Dimensions	100mm x 70mm x 50.5mm
Weight	About 240g
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



EtherCAT Port	
EtherCAT IN	EtherCAT input port for access to the EtherCAT network, supporting to connect to EtherCAT master or the EtherCAT OUT of EtherCAT slave.
EtherCAT OUT	EtherCAT output port for connecting other EtherCAT devices on the same network segment, supporting to connect the EtherCAT IN of EtherCAT slave.

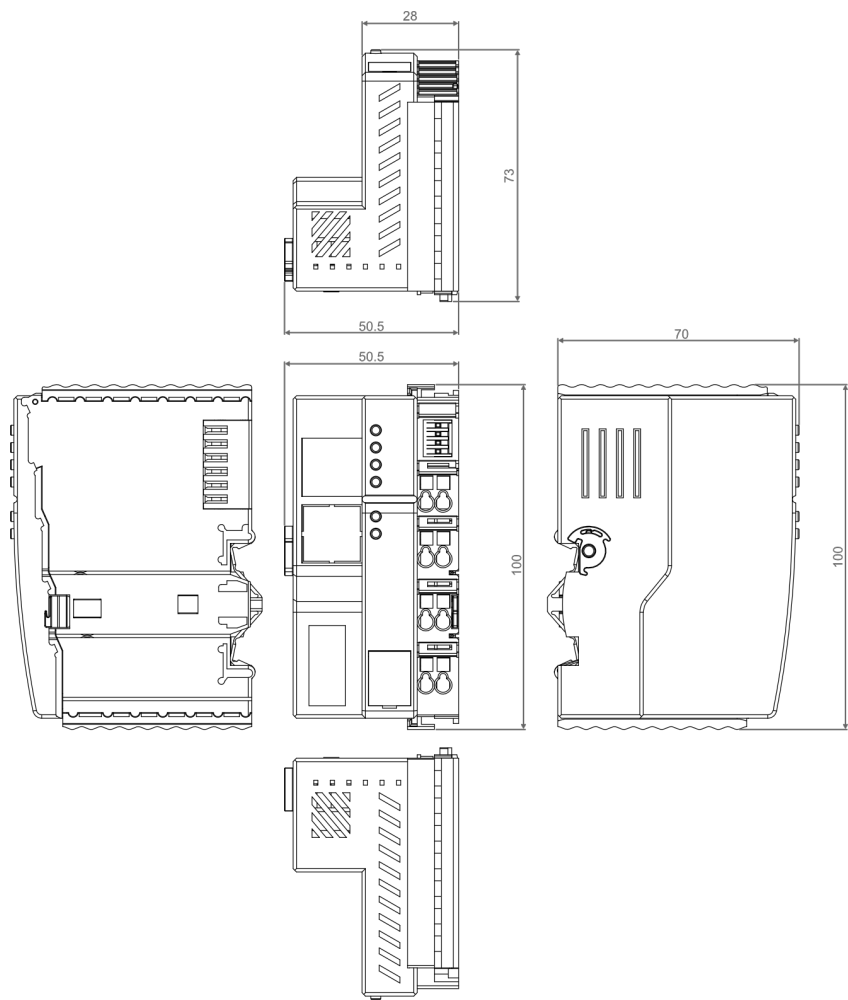
System Indicator	
PWR	2 x green power indicators, using to view the power status of coupler.
SYS	1 x green system tip indicator, using to check the operational status of coupler.
RUN	1 x green running indicator, using to check the running status of coupler.
ERR	1 x red fault indicator, using to see if the coupler is malfunctioning.

System Power Indicator	
Link	1 x green link indicator, using to see if the connection of common terminal is normal.
Input Voltage	1 x green input voltage indicator, using to see if the input voltage is normal.
Overcurrent	1 x red overcurrent indicator, using to see if the coupler exceeds the maximum operating current.

Power Port			
Pin No.	Description	Pin No.	Description
1	24V SYS	2	24V SYS
3	24V Field	4	24V Field
5	0V Field	6	0V Field
7	PE	8	PE

Dimensions

Unit: mm



Ordering Code

Model	Description
ED-EIOBRG-EC	EtherCAT Coupler, 2 x EtherCAT Ports

Adapted PLC Unit

Model	Description
ED-PLC2010	EtherCAT Master based on CODESYS

Expandable I/O Modules

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

Model	Description
ED-EIO16XP	16-channel digital input module (PNP)
ED-EIO16XN	16-channel digital input module (NPN)
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)
ED-EIO4YR	4-channel digital output module (Relay)
ED-EIO4ADV	4-channel analog input module (voltage), -5~5V/0~10V/-10~10V, configurable
ED-EIO4ADA	4-channel analog input module (current), 4-20mA/0-20mA, configurable
ED-EIO8ADA	8-channel analog input module (current), 4-20mA/0-20mA, configurable
ED-EIO4AD	4-channel analog input module (voltage/current mixed), -5~5V/0~10V/-10~10V/4-20mA/0-20mA, configurable
ED-EIO4DAV	4-channel analog output module (voltage), -5 ~ 5V/0 ~ 10V/-10 ~ 10V, configurable
ED-EIO4DAA	4-channel analog output module (current), 4-20mA/0-20mA, configurable
ED-EIO4RTD	4-channel RTD Module
ED-EIO4TC	4-channel TC Module
ED-EIO2HCD	2-channel High Speed Counter Module
ED-EIOPWR	Power Expansion Supply Module
ED-EIOTERM	Bus End Cover

Packing List

- 1 x EtherCAT Coupler

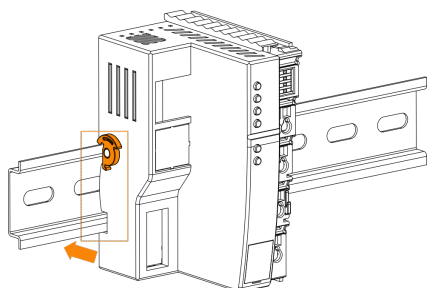
Installation

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 coupler.

Step

Slip the notches on the back of the EtherCAT Coupler over the DIN-rail, then press it and push in the DIN snap pin to secure the EtherCAT Coupler to the DIN rail.



Dismantling

TIP

- Before you start installing, please turn off the power and disconnect the cable to the coupler.

Step

Hold the snap pin of the coupler by hand and then pull it out in the direction of the arrow to disengage the coupler from the DIN-rail.

