



EC4-EP21

EtherCAT coupler with ID switch

Features

- Coupling EtherCAT low-profile modules to 100 BASE-TX Ethernet CAT networks
- 2 x RJ45 interface
- Distance between stations up to 100 m (100BASE-TX)
- External ID
- Support dual power input
- Provide over-voltage/under-voltage/over-current protection



Introduction

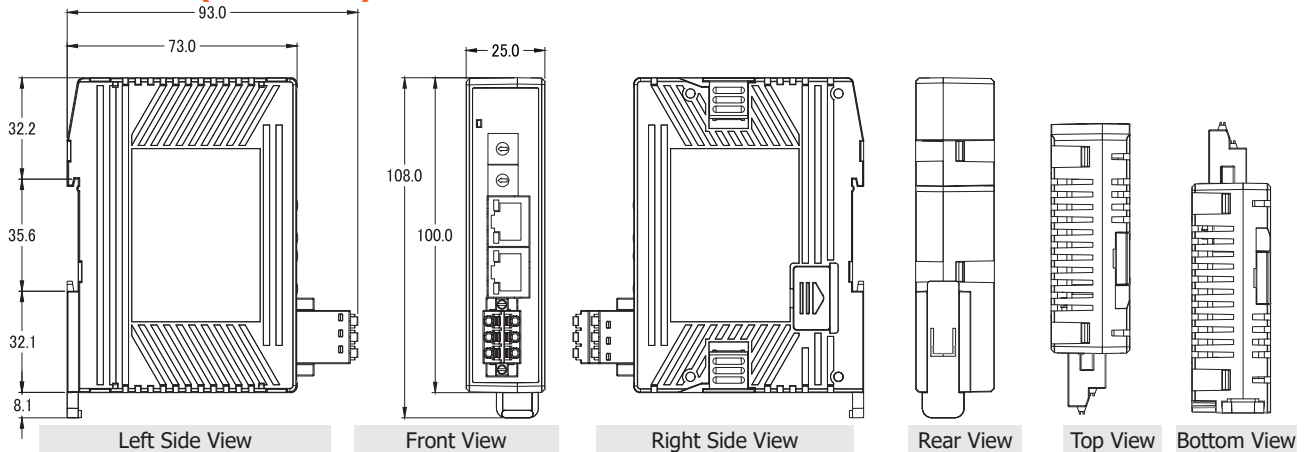
The EC4-EP21 EtherCAT coupler is the connection between the field bus grade EtherCAT protocol and the EtherCAT low-profile module. A station consists of a coupler and multiple EtherCAT Slim modules.

Specifications

EMS Protection	
EFT (IEC 61000-4-4)	Signal: 1 KV Class B; Power: 1 KV Class B
ESD (IEC 61000-4-2)	4 KV Contact for Each Terminal
Surge (IEC 61000-4-5)	1 KV Class A
Power monitoring	
Rated voltage	+24 VDC (-15%/+20%)
Double power input	Yes
Bus maximum current	2A
Over/under voltage and over current diagnostics	Yes
Reset Key	Power off reset button
LED indicator	
LED diagnostic light	PWR, RUN, BUS, Link/Act x2, Power Diagnosis LED

EtherCAT	
Ports	EtherCAT, 2 x RJ-45 (1 IN; 1-OUT)
Distance Between Stations	Max.100 m (100BASE-TX)
Node ID	Up to 256
Data Transfer Medium	Ethernet/EtherCAT Cable (Min. CAT 5), Shielded
Power	
Input Range	+24 VDC
Consumption	2W Max
Mechanical	
Casing	Plastic
Dimensions (mm)	25 x 108 x 93 (W x L x D)
Installation	DIN-Rail or Wall Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

Dimensions (Units: mm)



Ordering Information

EC4-EP21 CR	EtherCAT coupler with ID switch (RoHS)
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Applications

Create your own I/O module

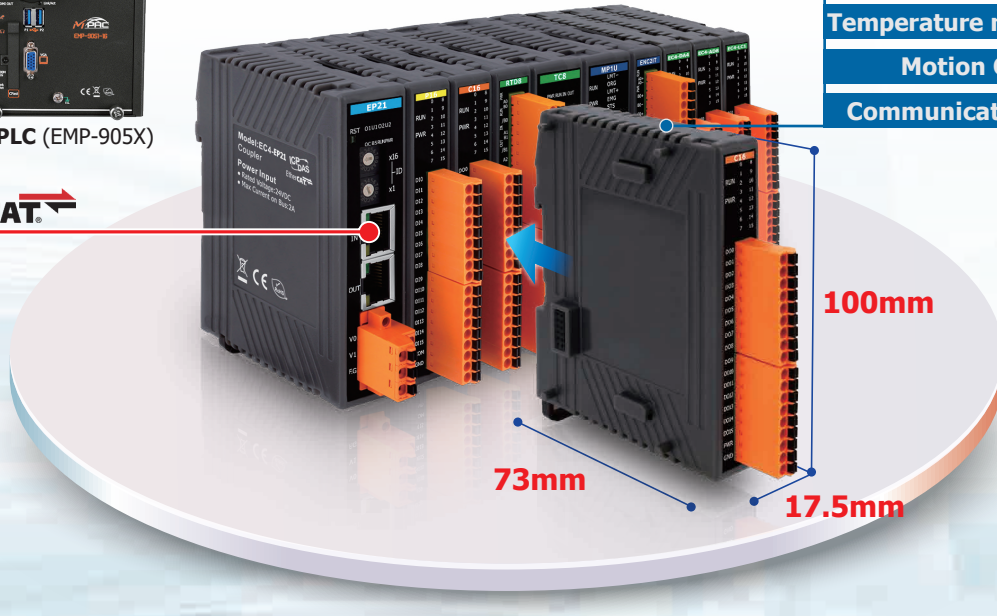
Maximize your I/O system and applications in limited space



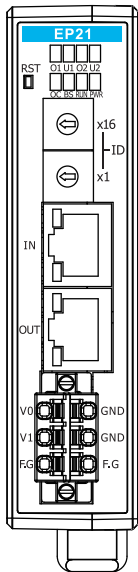
▲ PAC/PLC (EMP-905X)

EtherCAT

- Digital I/O
- Analog I/O
- Strain measurement
- Temperature measurement
- Motion Control
- Communication coupler

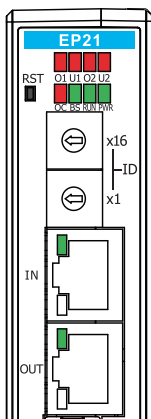


Pin Assignments



Name	Signal	Description
F.G	Frame ground (GND)	
V0	V0 Power supply: +24 VDC(from positive power contact)	Dual power supply
V1	V1 Power supply: +24 VDC(from positive power contact)	
GND	Power supply: Ground 0V(from negative power contact)	
IN	EtherCAT signal input	Incoming EtherCAT cable
OUT	EtherCAT signal output	Outgoing EtherCAT cable
RST	Reset Key	Undervoltage/overvoltage/overcurrent reset button
ID	Range (HEX)	Description
X1	ID:0-F	Rotary Switch is Hex ID is double digits X16 is High digit X1 is Low digit
X16	ID:0-F	

LED indication



LED	Color	Description	state
PWR	Green	ON	Power On
RUN	Green	Flashing	BUS Link/Act 1 LED
BS	Green	ON	BUS Power On
IN	Green	Flashing	Link/Act 0 LED
OUT	Green	Flashing	Link/Act 2 LED
OC	Red	ON	BUS Over Current 2A
O1	Red	ON	Vin1 Over Voltage (30.0V)
O2	Red	ON	Vin2 Over Voltage (30.0V)
U1	Red	ON	Vin1 Under Voltage (20.0V)
U2	Red	ON	Vin3 Under Voltage (20.0V)