

Network Converter

EtherCAT Compatible NETC01-ECT

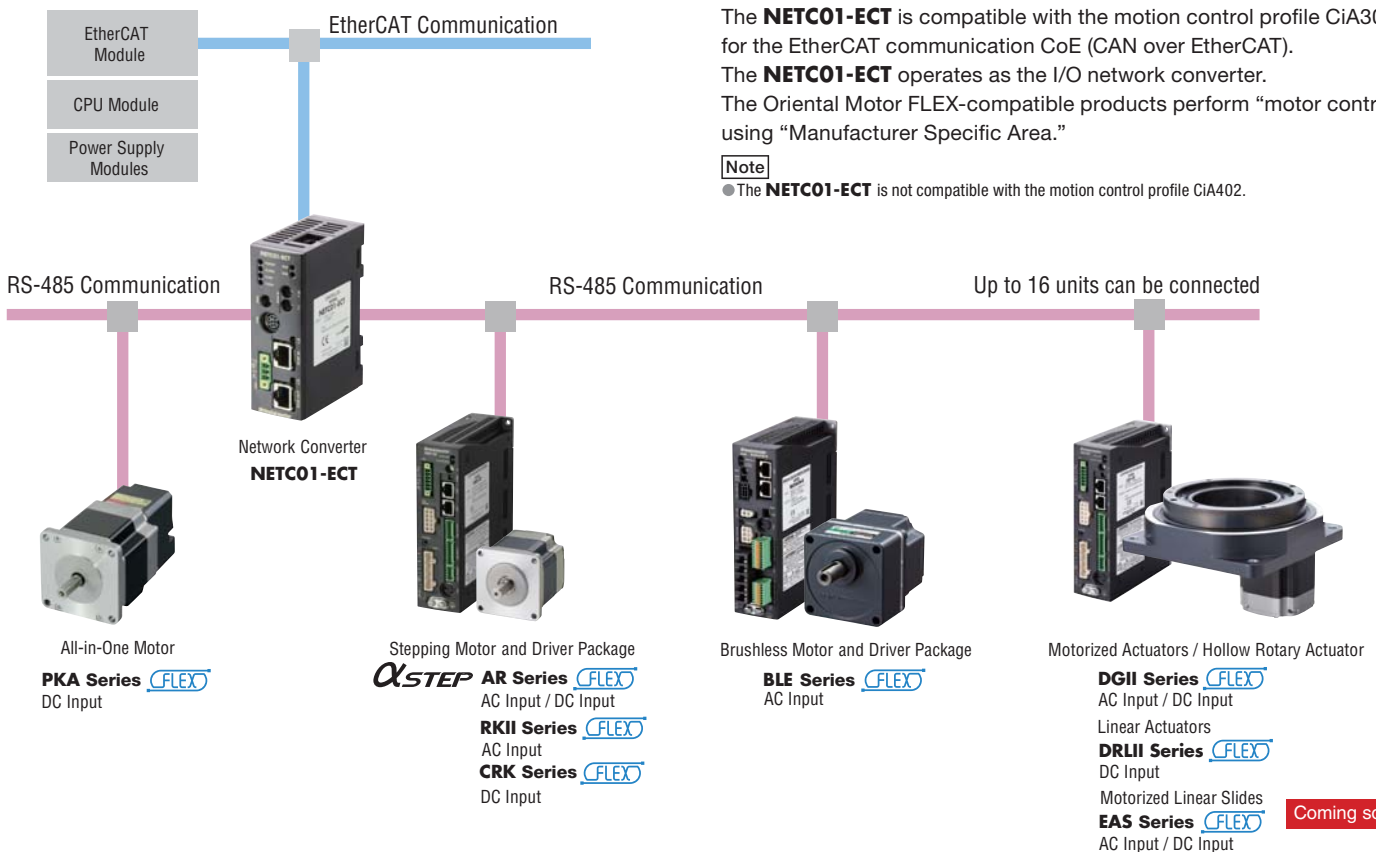
EtherCAT®



The EtherCAT network converter **NETC01-ECT** is a device that converts from an EtherCAT communication to Oriental Motor's own RS-485 communication protocol. By using the **NETC01-ECT** network converter, Oriental Motor's entire „FLEX“-compatible products can be controlled within an EtherCAT communications environment.

„FLEX“ is the generic name for products that are used for I/O control, Modbus (RTU)/RS-485 control or a network converter. Flex products enable easy connection, and reduce the complexity of system configuration.

Features



The **NETC01-ECT** is compatible with the motion control profile CiA301 for the EtherCAT communication CoE (CAN over EtherCAT). The **NETC01-ECT** operates as the I/O network converter. The Oriental Motor FLEX-compatible products perform “motor control” using “Manufacturer Specific Area.”

Note

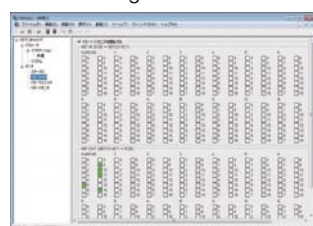
● The **NETC01-ECT** is not compatible with the motion control profile CiA402.

Simple Setting and Easy Monitoring

The **NETC01-ECT** can be set via EtherCAT communication or using the control module **OPX-2A** (sold separately) or data setting software **MEXE02**. The **OPX-2A** and **MEXE02** can be used for monitoring remote I/O or remote register.



Control Module **OPX-2A**



Data Setting Software **MEXE02**

ESI File

The ESI file is available for the **NETC01-ECT**, EtherCAT gateway controller. Please contact us for further information. For the **NETC01-ECT** installation and connection information, see the operator's manual.

The following items are included in each product.
Network Converter, RS-485 Communication Cable, Power Supply Connector, Operating Manual

Coming soon

Specification

● Power Supply Input

24 VDC ±10% Current Consumption 0.2 A

● EtherCAT Specification **NETC01-ECT**

Item	Description
Baud Rate	100 Mbps
Communication Period	Subject to the setting of the master device
Node Address	0~255 (00h~FFh, initial value: 01h)
Maximum Number of Byte	300 bytes
Communication Protocol	EtherCAT dedicated protocol (CoE), profile type: CiA301 compatible
Communication Cable	Category 5 straight cable (shielded twisted cable)

● RS-485 Specification

Item	Description
Electrical Characteristics	EIA-485 compliance, straight cable Twisted-pair wire (TIA/EIA-568B CAT5e or greater recommended) is used up to a total extension length 50 m.
Communication Mode	Half duplex communication, asynchronous mode (data: 8 bits, stop bit: 1 bit, parity: none)
Baud Rate	625,000 bps
Protocol	Frame size: 10 bytes (fix), binary transmission
Maximum Number of Connectable Units	16 units

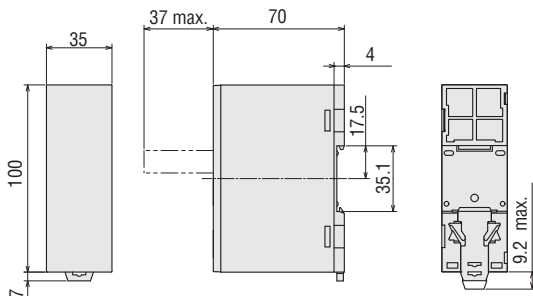
General Specification

Item	Description	
Insulation Resistance	100 MΩ min when measured with a 500 VDC megger is applied between the following locations: · FG terminal – power supply terminal	
Dielectric Strength	Sufficient to withstand 500 VAC, 50 Hz or 60 Hz applied between the following places for 1 minute: · FG terminal – power supply terminal	
Operating Environment (In Operation)	Ambient Temperature	0~+ 40°C (non-freezing)
	Ambient Humidity	85% max. (non-condensing)
	Altitude	Max. of 1000 m above sea level
	Atmosphere	No corrosive gasses, dust, water or oil.
Storage, Transportation Environment	Ambient Temperature	-25 ~ +70°C (non-freezing)
	Ambient Humidity	85% max. (non-condensing)
	Altitude	Max. of 3000 m above sea level
	Atmosphere	No corrosive gasses, dust, water or oil.

Note ● Do not measure insulation resistance or perform the dielectric strength test while the motor and driver are connected.

Dimensions Unit = mm

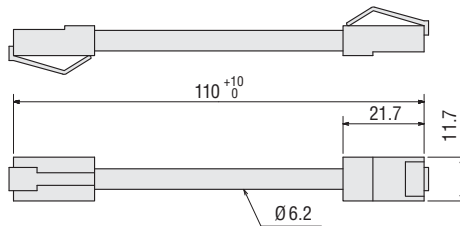
NETC01-ECT Mass: 0.15 kg



● EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

● Accessories (Included)

● RS-485 Communication Cable



● Power Supply Connector

Connector: MC1,5/3-STF-3,5 (PHOENIX CONTACT GmbH & Co. KG)

For Connecting to Industrial Networks

Network Converter

- EtherCAT-compatible
- CC-Link-compatible
- MECHATROLINK-II-compatible
- MECHATROLINK-III-compatible



The communication protocol of the master controller, Industrial Network, is converted to Oriental Motor's own RS-485 communication protocol. Connection to FLEX-compatible products is completed with one RS-485 communication cable.

● Compatible Networks:

- EtherCAT (**NETC01-ECT**),
- CC-Link (**NETC01-CC**),
- MECHATROLINK-II (**NETC01-M2**),
- MECHATROLINK-III (**NETC01-M3**)
- Size: 100 x 35 x 70 mm

This product is manufactured at a plant certified with the international standards **ISO 9001** (for quality assurance) and **ISO 14001** (for systems of environmental management).

Specifications are subject to change without notice.
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Oriental motor

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