

# Network Converter

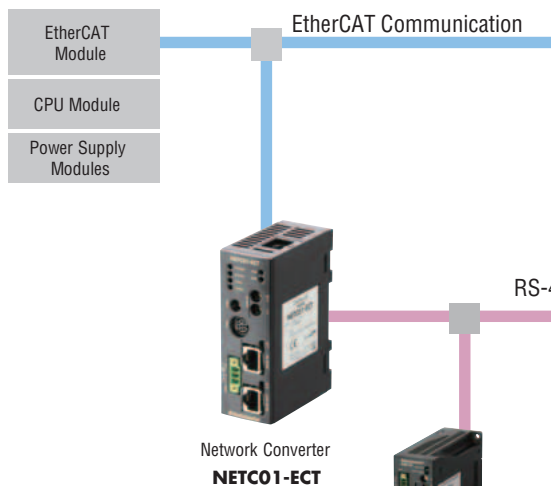
## EtherCAT Compatible NETC01-ECT

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.

### 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.

Stepping Motor and Driver Package  
**αSTEP AR Series** *FLEX*  
AC Input  
DC Input  
**CRK Series** *FLEX*  
DC Input

Brushless Motor and Driver Package  
**BLE Series** *FLEX*  
AC Input

Motorized Actuators  
Hollow Rotary Actuator  
**DG II Series** *FLEX*  
AC Input  
DC Input

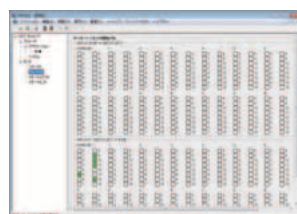
Motorized Linear Slides  
**EAS Series** *FLEX*  
AC Input  
DC Input

### 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 download at [www.orientalmotor.com](http://www.orientalmotor.com) for the **NETC01-ECT**, EtherCAT gateway controller. 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

## 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 (164 ft.).
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

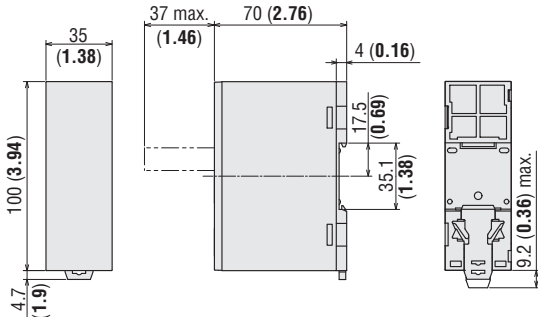
Item	Description	
Insulation Resistance	100 MΩ min when measured with a 500 VDC megger is applied between the following locations: · FG terminal – power supply terminal	
Dielectric Strength	Sufficient to withstand 500 VAC, 50 Hz or 60 Hz applied between the following places for 1 minute: · FG terminal – power supply terminal	
Operating Environment (In Operation)	Ambient Temperature	0~+40°C (+32~+104°F) (non-freezing)
	Ambient Humidity	85% max. (non-condensing)
	Altitude	Max. of 1000 m (3300 ft.) above sea level
	Atmosphere	No corrosive gasses, dust, water or oil.
Storage, Transportation Environment	Ambient Temperature	-25~+70°C (-13~+158°F) (non-freezing)
	Ambient Humidity	85% max. (non-condensing)
	Altitude	Max. of 3000 m (10000 ft.) 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 (in.)

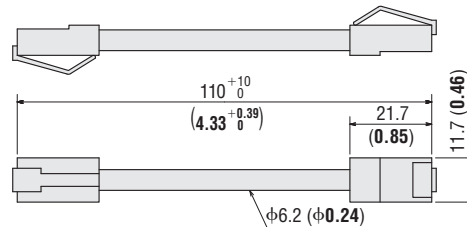
**NETC01-ECT** Mass: 0.15 kg (0.33 lbs.)



● 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)

Specifications are subject to change without notice. This catalog was published in February, 2013.

# ORIENTAL MOTOR U.S.A. CORP.

## Western Sales and Customer Service Center

Tel: (310) 715-3301 Fax: (310) 225-2594

### Los Angeles

Tel: (310) 715-3301

### San Jose

Tel: (408) 392-9735

## Midwest Sales and Customer Service Center

Tel: (847) 871-5900 Fax: (847) 472-2623

### Chicago

Tel: (847) 871-5900

### Dallas

Tel: (214) 432-3386

### Toronto

Tel: (905) 502-5333

## Eastern Sales and Customer Service Center

Tel: (781) 848-2426 Fax: (781) 848-2617

### Boston

Tel: (781) 848-2426

### Charlotte

Tel: (704) 766-1335

### New York

Tel: (973) 359-1100

### Technical Support

Tel: (800) 468-3982 / 8:30 A.M. to 5:00 P.M., P.S.T. (M-F)  
7:30 A.M. to 5:00 P.M., C.S.T. (M-F)

E-mail: [techsupport@orientalmotor.com](mailto:techsupport@orientalmotor.com)

Obtain Specifications, Online Training  
and Purchase Products at:  
[www.orientalmotor.com](http://www.orientalmotor.com)

Copyright ©2013 ORIENTAL MOTOR U.S.A. CORP.  
This printed material uses ECF (Elementary Chlorine Free) paper.