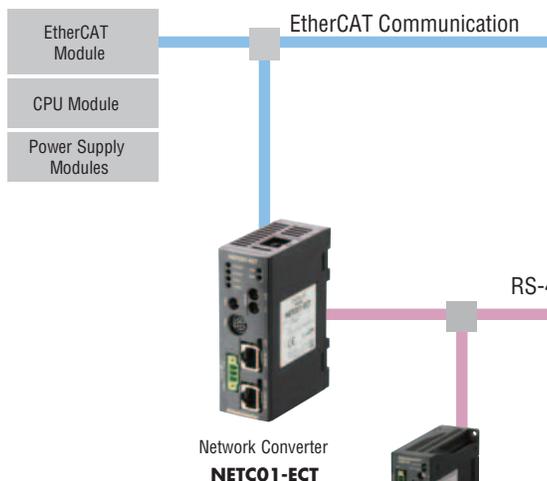# Oriental motor

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

| EtherCAT Module |
| CPU Module |
| Power Supply Modules |

EtherCAT Communication

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.

RS-485 Communication   Up to 16 units can be connected

Network Converter
NETC01-ECT

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

CRK Series FLEX
DC Input

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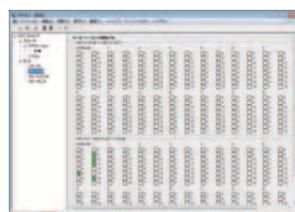**BLE Series** FLEX
AC Input

Motorized Actuators
Hollow Rotary Actuator
DGⅡ 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 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 (RoHS) CE

● 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

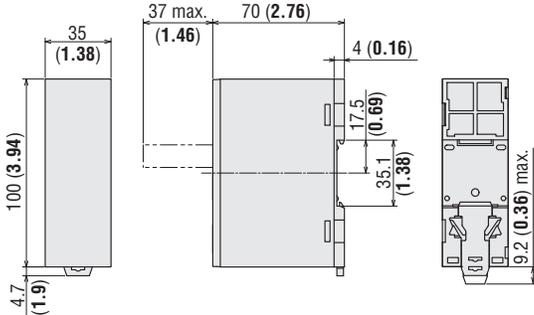| Item	Description
Electrical Characteristics	EIA-485 compliance, straight cable Twisted-pair wire (TIA/EIA-568B CAT5e or greater recommended) is used up to a total extension length 50 m (164 ft.).
Communication Mode	Half duplex communication, asynchronous mode (data: 8 bits, stop bit: 1 bit, parity: 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.
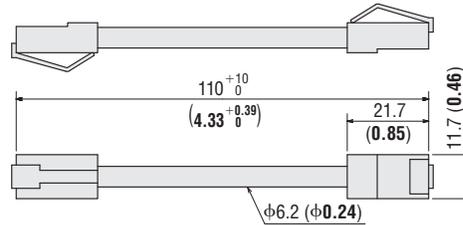
■ Dimensions Unit = mm (in.)

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.