

Programmable Multi-Axis Controller

# CK3E

**A controller with a width of only 28.6 mm provides complete control**



EtherCAT®



### High-speed multi-axis control

- Up to 32 axes of control
- Motion control period: 250 µs or more



### Flexibility

- CAD/CAM for easy motion control
- Flexible function development capability enables high-precision curve machining



### Saving space & wiring

- Footprint reduced to 1/4 (Based on Omron investigation)
- EtherCAT for flexible system configuration

## One of Omron's aims is to help manufacturers build advanced Motion Control systems at a low cost

In order to achieve this, Omron and Delta Tau Data Systems, Inc. are working together as one Omron Group to improve sophisticated Motion Control and Programmable Logic Control systems. These are the systems that are required for the next generation's automation systems around the world.

By combining global leading Delta Tau Data Systems' Motion Control technologies, Omron ILO+S (Input, Logic, Output, and Safety) control technologies can open up new applications and solutions.

The CK3E is a controller designed for precise multi-axis control.

You can build a system capable of controlling up to 32 axes of motion and incorporate customized control algorithms into the system.

The CK3E allows you to program in C language and reuse existing software assets. The compact design saves space in machines and control panels. EtherCAT® connects servo drives, I/O, and other devices to the CK3E, reducing the number of cables.

## A cost-effective system to provide high-performance motion control

The CK3E can be integrated into your existing system. Consult with your Omron representative even if your system is composed of hardware from other vendors.

NB-series  
Programmable Terminal  
**NB-□□-TW01B**



Programmable Multi-Axis Controller  
**CK3E**



**IDE(Integrated Development Environment)**  
Develop, debug, and test programs developed in original programming language or in C language.



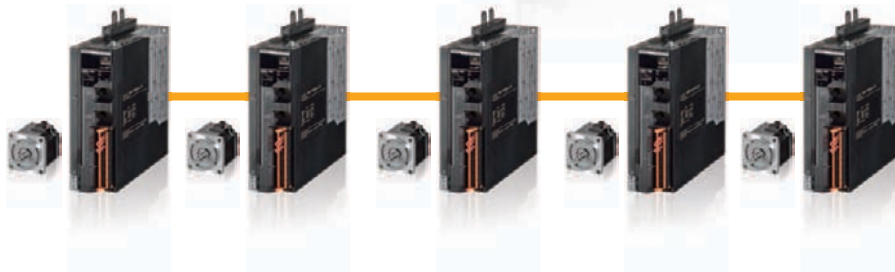
CP-series CP1L CPU Unit  
**CP1L**



**Modbus-TCP**

1S-series AC Servomotors  
**R88M-1□□**

1S-series Servo Drives with Built-in EtherCAT Communications  
**R88D-1SN□-ECT**



**EtherCAT®**

## Ordering Information

### Programmable Multi-Axis Controller

Product	Specifications			Model
	Memory	Ports	Number of motion axes	
Programmable Multi-Axis Controller CK3E	DDR3 memory:1GB Flash memory:1GB	Ethernet port:1 EtherCAT port:1	8	CK3E-1210
			16	CK3E-1310
			32	CK3E-1410

### Programmable Multi Axis Controller

The Programmable Multi Axis Controller has been developed by US-based Delta Tau Data Systems, Inc. to deliver the world's highest level\* of multi-axis control performance.

Providing the high-speed processing capability to perform precise linear motor drive control and nanometer positioning that require ultra fast responses, the Programmable Multi-Axis Controller is appreciated by manufacturers of semiconductor manufacturing equipment and other products employing leading-edge technologies.

Through working together with Delta Tau Data Systems which joined the Omron Group on September 1 2015, Omron will further advance automation technologies in an ever-changing manufacturing environment to help manufacturers improve productivity and manufacturing quality.

\* "The world's highest level" refers to the motion control performance of 16.6 microseconds/1 axes or 50 microseconds/8 axes (Omron survey as of July 2016).

EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany. Other company names and product names in this document are the trademarks or registered trademarks of their respective companies. The product photographs and figures that are used in this catalog may vary somewhat from the actual products.

**OMRON Corporation Industrial Automation Company**  
Kyoto, JAPAN

Contact: [www.ia.omron.com](http://www.ia.omron.com)

#### Regional Headquarters

**OMRON EUROPE B.V.**  
Wegalaan 67-69, 2132 JD Hoofddorp  
The Netherlands  
Tel: (31)2356-81-300/Fax: (31)2356-81-388

**OMRON ELECTRONICS LLC**  
2895 Greenspoint Parkway, Suite 200  
Hoffman Estates, IL 60169 U.S.A.  
Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

**OMRON ASIA PACIFIC PTE. LTD.**  
No. 438A Alexandra Road # 05-05/08 (Lobby 2),  
Alexandra Technopark,  
Singapore 119967  
Tel: (65) 6835-3011/Fax: (65) 6835-2711

**OMRON (CHINA) CO., LTD.**  
Room 2211, Bank of China Tower,  
200 Yin Cheng Zhong Road,  
PuDong New Area, Shanghai, 200120, China  
Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200

**Authorized Distributor:**

© OMRON Corporation 2016 All Rights Reserved.  
In the interest of product improvement,  
specifications are subject to change without notice.

CSM\_1\_1\_0716  
Cat. No. R188-E1-01

0716(0716)