At the end of this document you will find links to products related to this catalog. You can go directly to our shop by clicking HERE. HERE

OMRON

CS/CJ/NJ Series

EtherNet/IP

High-speed High-capacity Industrial Ethernet

» Global Standard

» Integration of Controls and Information

» Convenience of the Universal Ethernet

realizing

The Global Standard Network controls and information.

Data links between PLCs, between PLCs and multivendor devices, and communications between PTs and PLCs are realized with Universal Ethernet. Higher speed and capacity than customized FA networks.

The global-standard network EtherNet/IP integrates controls and information using the latest Universal Ethernet technology and is supported by the OMRON CS/CJ-series PLCs and Machine Automation Controller NJ-Series. The CJ2/NJ CPU Units provide a built-in EtherNet/IP port, and the EtherNet/IP Units can be used with any CS/CJ-series CPU Unit.

Global Standard

- Highly open global standard for the FA industry with high future potential.
- No need for separate information and control networks.
- Improved efficiency with common Support Software operations.
- Safety systems can be monitored.

that integrates

Ethernet Technology

- Data communications with higher capacity, **9 times** higher than previous OMRON models.
- Low cost expansion for each line.
- Reduced network construction cost.
- Easy mobile communications with FA wireless LAN.

Integration of Controls and Information

- High-speed data links at optimal cycle, **30 times** faster than previous OMRON models
- FTP communications, data links, and Support Software can be used simultaneously with a single port.
- Memory map management is not required with the NJ-Series and CJ2 CPU Units.

Industrial Protocol

EtherNet/IP™

EtherNet/IP is a Global Standard for Industrial Ethernet promoted by the ODVA(ODVA,Inc.).

Open Standard

Many companies around the world, including the main manufacturers of control devices, are marketing compatible devices.

Independence

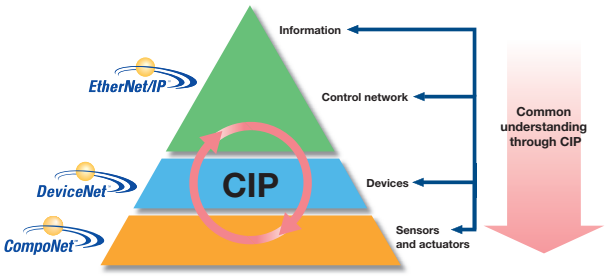
EtherNet/IP specifications are managed by the independent organization ODVA, which promotes the world-wide spread of open networks such as DeviceNet and CompoNet. It does not belong to a specific manufacturer.

High Future Potential

EtherNet/IP has already been implemented in many places internationally. Its use is expected to spread further as the number of compatible devices increases.

What Is CIP?

CIP is a Common Industrial Protocol in the OSI application layer. Routing between networks that use CIP as their base is easy. For this reason, transparent networks from sensors to host devices can be constructed easily.



Sysmac® is a trademark or registered trademark of OMRON Corporation in Japan and other countries for OMRON factory automation products.
Microsoft, Visual Basic, Visual C#, Visual Studio, and Windows are registered trademarks of the Microsoft Corporation in the USA and other countries.
EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.
DeviceNet, DeviceNet Safety, and CompoNet are registered trademarks of the ODVA.
Other company names and product names are the trademarks or registered trademarks of their respective companies.

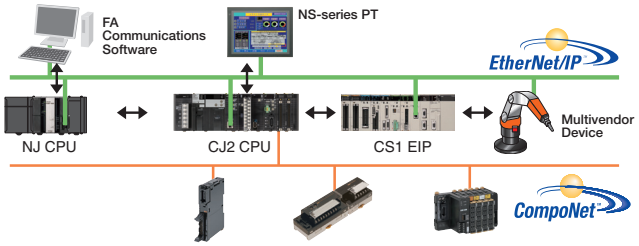
FA Industry Standard Ethernet

Global Standard

Highly Open Global Standard for FA Industry with High Future Potential

The ODVA promotes the spread of Industrial Ethernet all over the world.

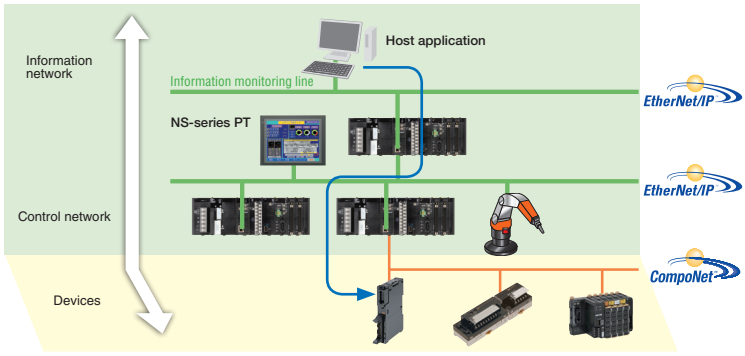
EtherNet/IP can be used to communicate with many devices from various companies around the world in addition to OMRON components (such as Temperature Controllers and Sensors). The use of EtherNet/IP will rapidly increase the development of an EtherNet/IP multivendor environment (including robots and safety devices).



Integrated Information and Control Network

Seamless communications on the control line and information monitoring line with EtherNet/IP

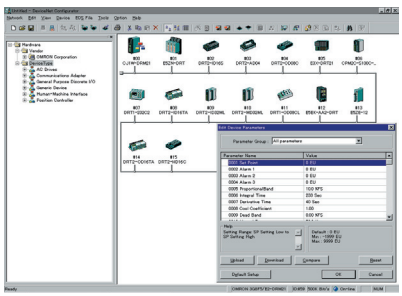
Using the global standard open protocol (CIP), an independent network system can be created with seamless data flow between the control line and the information monitoring line.
OMRON FINS message communications can also be used on the same network because it is a standard LAN.



Improved operation efficiency with common Support Software operation

Use the same operating procedures for both EtherNet/IP and DeviceNet Support Software.

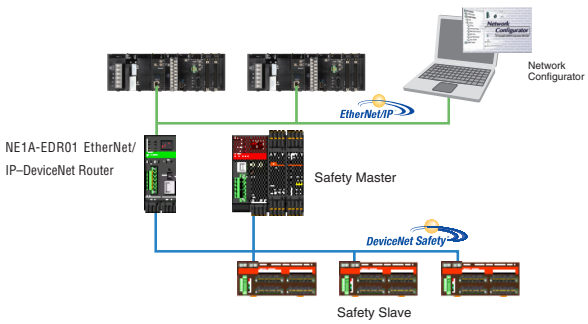
The same Support Software procedures can be used from a remote location for device configuration, monitoring, and program transfer for the DeviceNet and EtherNet/IP networks.



Monitor Safety Systems

Safety systems can be monitored through the EtherNet/IP.

The safety system can be monitored from a PLC by combining the DeviceNet Safety and EtherNet/IP using an EtherNet/IP–DeviceNet Router.



Flexibility System Construction and Easy Expansion

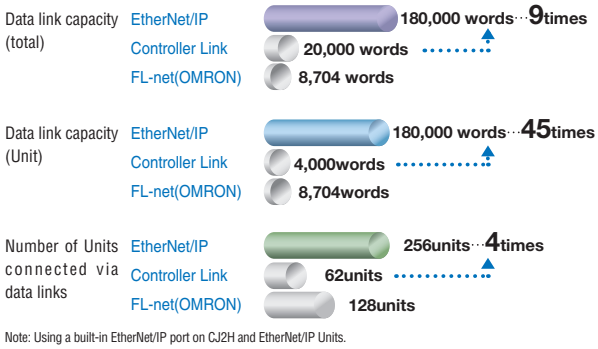
Convenience of the Universal Ethernet Right in Your Hands

Higher Data Link Capacity

9 times the capacity of previous OMRON models

High-capacity communications with high-speed high-capacity bus

All types of data, from process interlocks and manufacturing recipes to production data, can be exchanged at high speed and with optimal timing. The ability to communicate is incomparably better than previous networks, such as the Controller Link and FL-net.



Note: Using a built-in EtherNet/IP port on CJ2H and EtherNet/IP Units.

Low Cost Expansion for Each Line

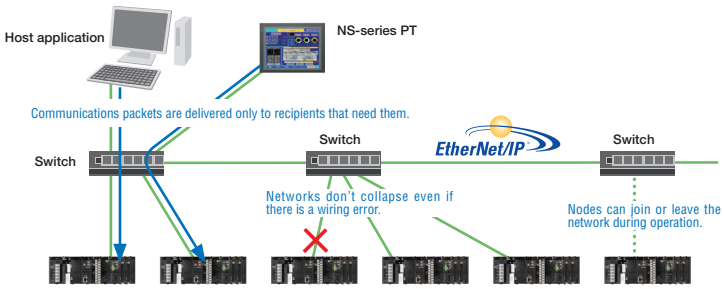
Flexible topology with the Ethernet switch

Flexible wiring and expansion are possible with Ethernet switches. This means that there will be no total network crashes caused by communications path errors, ensuring high network performance and security.

- Joining and leaving the network is possible during communications.

Nodes can leave the network during operation, enabling easy maintenance for error detection, separation, and restoration.

- Unpredictable delays caused by data collisions are minimum.
- Problems caused by wiring errors are minimized to each line.



Star topology using Ethernet switch technology

Reduced Network Facility and Wiring Costs

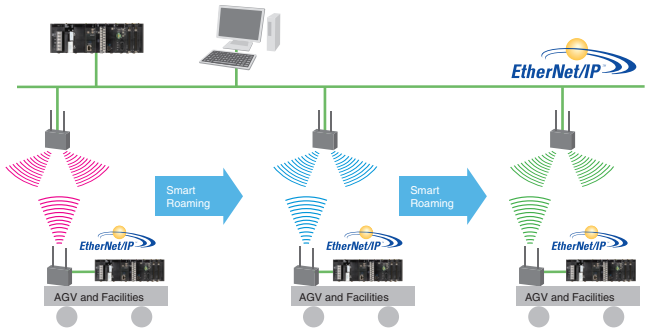
Generic LAN cables can be used.

- Metal cables of category 5, 5e, or higher can be used as LAN cables.
- Generic RJ-45 connectors can be used.

Standard wireless LAN can be used because EtherNet/IP is also Universal Ethernet.

There is no need to rewire even when layout has been changed.

- EtherNet/IP can be made wireless using the standard wireless LAN.
- High-speed Smart Roaming communications can be used for mobile units with the WE70 FA Wireless LAN. The communications range can be expanded by relaying communications between access points.



From Host to Field Level over Ethernet

Integration of Control and Information Networks

High-speed Data Links with Optimal Cycles for Applications

30 times higher than previous OMRON models

Flexible and high-speed cyclic communications

- Grouping can be used in data link tables to create multiple sections.

  Data link table can be divided into up to 256 groups (= connections).
  The optimum communications cycle for the application can be set for each group.

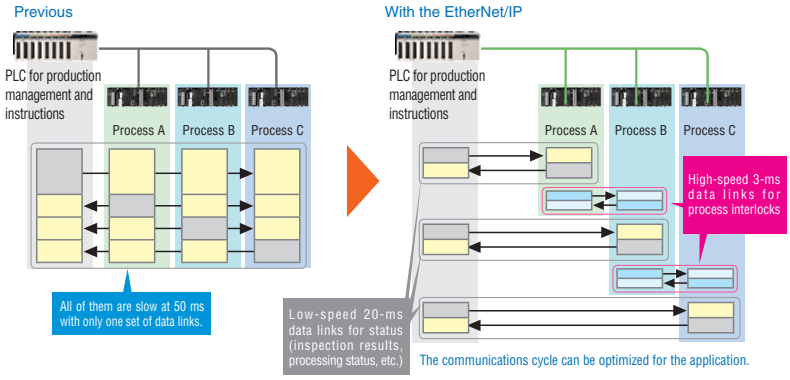
- Cyclic synchronization can be set for each group.

  The communications cycle can be set to between 0.5 ms and 10 s in 0.5-ms increments. Data concurrency is maintained for each connection. The communications cycle does not change even if the number of nodes increases. The communications performance is 30 times better than that of the Controller Link.
  Example:
  Data link refresh cycle for 25 linked Unit and 20,000 words/network is reduced from 300 ms to 10 ms.

- Facilities can be easily expanded.

  When expanding facilities, all you need to do is make additions to the tables. Expansion is possible with little time and low cost.

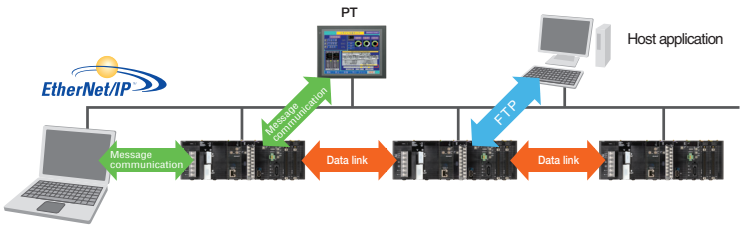
Note: Using a built-in EtherNet/IP port on CJ2H and EtherNet/IP Units.



FTP, Data Links, and Support Software Can Be Used Simultaneously with One Port

With the multipurpose EtherNet/IP port, an Ethernet Unit is not required for expansion.

Using the multipurpose EtherNet/IP port built into a CJ2/NJ CPU Unit, a single port can be used for data link communications between PLCs, messages between PLCs, and Universal Ethernet communications, such as FTP transfers while connecting Support Software. An EtherNet/IP Unit can be added to any CS/CJ-series PLC to achieve the same functions.



Using a CJ2/NJ CPU Unit...

Memory Map Management Becomes Unnecessary.

Freed from memory map by tags

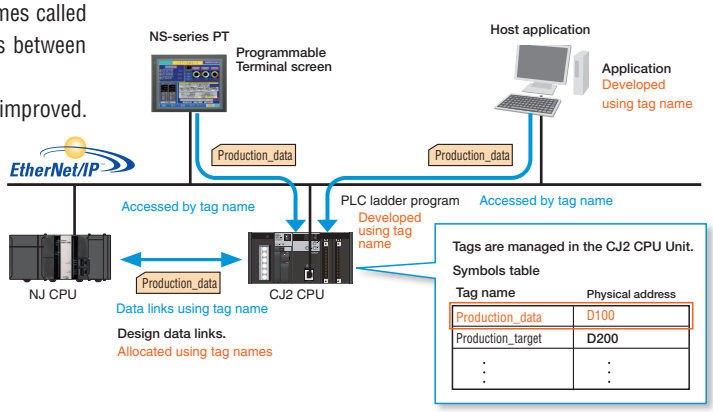
The transmission/reception area can be specified with normal names called tag names instead of addresses for communication on data links between devices or when communication with the host application.
The efficiency of design, startup, maintenance, and upgrading are improved.

- PT and host applications can be developed in parallel.

  Network symbols defined in CJ2/NJ CPU Units can be used as tags when designing the PT screen.
  Design is easy: Just decide on the tag names for the information and control departments.
  Changes to allocated addresses is not needed later in development.

- Easier facility upgrading and maintenance

  Even if physical addresses change in the PLC, there is no need to make any changes in the data link settings, in the PT, or in the host application.



EtherNet/IP Communications Specifications (CS/CJ/NJ Series)

Item			Model	Built-in EtherNet/IP port on NJ501-□□□□ or NJ301- □□□□	EtherNet/IP Unit, Built-in EtherNet/IP port on CJ2H-CPU□□-EIP	Built in EtherNet/IP Port on CJ2M-CPU3□
Transfer Specifications	Media access Method			CSMA/CD		
	Modulation method			Baseband		
	Transmission paths			Star form		
	Baud rate			100 Mbit/s (100Base-TX)		
	Transmission media			Shielded twisted-pair (STP) cable Category: 5, 5e or higher		
	Transmission distance			100 m (distance between hub and node)		
CIP service	Tag data links (Cyclic communications)	Number of connections		32	256	32
		Packet interval (refresh cycle)		1 to 10,000 ms *1 (in 1-ms units)	0.5 to 10,000 ms (in 0.5-ms units)	1 to 10,000 ms (in 0.5-ms units)
		Allowed communications bandwidth per Unit		3,000 pps *1 *2	6,000 pps *2	3,000 pps *2
		Maximum link data size per Node (total size of all tags)		19,200 bytes (9,600 words)	369,664 bytes (184,832 words)	1,280 bytes (640 words)
		Maximum data size per connection		600 bytes (300 words) *3	1,444 bytes (722 words) or 504 bytes (252 words) *3	1,280 bytes (640 words) *3 *4
		Changing tag data link parameters during operation		Supported *5		
		Multicast packet filter function *6		Supported.		
	Explicit Messaging	Class 3 (connected)		Supported.		
		UCMM (unconnected)		Supported.		
		CIP routing		Supported.		
FINS service		FINS/UDP		Not supported.	Supported.	
		FINS/TCP		Not supported.	Supported.	

*1. Use NJ-series CPU Unit with version 1.03 or later and Sysmac Studio with version 1.04 or later.
When using the CPU Unit version 1.02 or earlier, the Packet interval is 10 to 10,000 ms in 1.0-ms increments and the Permissible Communications Band is 1,000 pps.
*2. In this case, pps means “packets per second” and indicates the number of packets that can be processed in one second.
*3. To use 505 to 1,444 bytes as the data size, the system must support the Large Forward Open standard (an optional CIP specification).
CS/CJ/NJ-series Units support this standard, but other companies’ devices may not support it.
*4. Unit version 2.0 of built-in EtherNet/IP section: 20 words.
*5. If parameters are changed, the target EtherNet/IP Unit will restart. When other nodes communicating with the target node, the affected data willtemporarily timeout and automatically recover later.
*6. Since the EtherNet/IP Unit is equipped with an IGMP client, unnecessary multicast packets can be filtered by using a switching hub that supports IGMP snooping.

Ordering Information

International Standards

- The standards are abbreviated as follows: U: UL, U1: UL(Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus(Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lioyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

■EtherNet/IP Units

Unit type	Product name	Specifications			No. of unit numbers allocated	Current consumption (A)			Model	Standards
		Communications cable	Communications type	Max. Units mountable per CPU Unit		5V	24V	26V		
CJ1 CPU Bus Unit	EtherNet/IP Unit	Shielded twisted-pair cable (STP), category 5, 5e or higher	Tag data links and message communications	8 *1	1	0.41	—		**CJ1W-EIP21** *2*3	UC1, N, L, CE
CS1 CPU Bus Unit	EtherNet/IP Unit			8	1	0.41		—	**CS1W-EIP21** *4	

*1. Up to four EtherNet/IP Units can be connected to a NJ CPU Unit. Up to seven EtherNet/IP Units can be connected to a CJ2H-CPU6□-EIP. Up to two EtherNet/IP Units can be connected to a CJ2M CPU Unit.

*2. The EtherNet/IP Units can be used in CJ-series (CJ1 and CJ2), CP1H, NSJ-series and NJ-series PLCs. EtherNet/IP Unit with unit version 2.1 or later is required to connect C1JW-EIP21 to NJ-series CPU Unit. Use NJ-series CPU Unit with version 1.01 or later and Sysmac Studio with version 1.02 or later.

*3. You cannot use the following functions if you connect to the NJ-series CPU Unit through an EtherNet/IP Unit.
- Going online with a CPU Unit from the Sysmac Studio. (However, you can go online from the Network Configurator.)
- Troubleshooting from an NS-series PT.

*4. The EtherNet/IP Units can be used in CS-series PLCs.

■NJ-series CPU Units

Product name	Specifications			Number of motion axes	Current consumption (A)		Model	Standards
	I/O capacity / maximum umber of configuration Units (Expansion Racks)	Program capacity	Memory capacity for variables		5VDC	24VDC		
NJ501 CPU Units	2,560 points / 40 Units (3 Expansion Racks)	20 MB	2 MB: Retained during power interruption 4 MB: Not retained during power interruption	64	1.90	—	**NJ501-1500**	UC1, N, L, CE
				32			**NJ501-1400**	
				16			**NJ501-1300**	
NJ301 CPU Units		5 MB	0.5 MB: Retained during power interruption 2 MB: Not retained during power interruption	8			**NJ301-1200**	
				4			**NJ301-1100**	

■CJ2H CPU Units (with Built-in EtherNet/IP)

Product name	I/O capacity/No. of Configuration Units (maximum No. of Expansion Racks)	Program capacity	Data memory capacity	LD instruction execution time	Current consumption (A)		Model	Standards
					5V	24V		
CJ2H CPU Units (with Built-in EtherNet/IP)	2560 points/40 Units (3 Expansion Racks max.)	400 Ksteps	832 K words (DM: 32 K words, EM: 32 K words × 25 banks)	0.016 μs	0.82 *	—	**CJ2H-CPU68-EIP**	UC1, N, L, CE
		250 Ksteps	512 K words (DM: 32 K words, EM: 32 K words × 15 banks)				**CJ2H-CPU67-EIP**	
		150 Ksteps	352 K words (DM: 32 K words, EM: 32 K words × 10 banks)				**CJ2H-CPU66-EIP**	
		100 Ksteps	160 K words (DM: 32 K words, EM: 32 K words × 4 banks)				**CJ2H-CPU65-EIP**	
		50 Ksteps	160 K words (DM: 32 K words, EM: 32 K words × 4 banks)				**CJ2H-CPU64-EIP**	

* Add 0.15 A per Adapter when using NT-AL001 RS-232C/RS-422A Adapters. Add 0.04 A per Adapter when using CJ1W-CIF11 RS-422A Adapters. Add 0.20A/Unit when using NV3W-M□20L Programmable Terminals. Refer to the CJ2 CPU Unit Catalog (Cat. No. P059) for details.

■CJ2M CPU Units (with Built-in EtherNet/IP)

Product name	Specifications						Current consumption (A)		Model	Standards
	I/O capacity/ Mountable Units (Expansion Racks)	Program capacity	Data memory capacity	LD instruction execution time	EtherNet/IP function	Option board slot	5 V	24 V		
CJ2M (with Built-in EtherNet/IP) CPU Units	2,560 points/ 40 Units (3 Expansion Racks max.)	60K steps	160K words (DM: 32K words, EM: 32K words × 4 banks)	0.04 μs	YES	YES	0.7*	—	**CJ2M-CPU35**	UC1, N, L, CE
		30K steps							**CJ2M-CPU34**	
		20K steps	64K words (DM: 32K words, EM: 32K words × 1 bank)						**CJ2M-CPU33**	
		10K steps							**CJ2M-CPU32**	
		5K steps							**CJ2M-CPU31**	

* Add 0.005A, 0.030A, and 0.075A when using Serial Communications Option Boards (CP1W-CIF01/11/12), respectively. Add 0.15A/Unit when using NT-AL001 RS-232C/RS-422A Adapters. Add 0.04A/Unit when using CJ1W-CIF11 RS-422A Adapters. Add 0.20A/Unit when using NV3W-M□20L Programmable Terminals. Refer to the CJ2 CPU Unit Catalog (Cat. No. P059) for details.

■Software

How to Select Required Support Software for Your Controller

The required Support Software depends on the Controller to connect. Please check the following table when purchasing the Support Software.

Item	Omron PLC System	Omron Machine Automation Controller System
Controller	CS, CJ, CP, and other series	NJ-series
Software	FA Integrated Tool Package CX-One	Automation Software Sysmac Studio

FA Integrated Tool Package CX-One

Product name	Specifications	Number of licenses	Media	Model	Standards
FA Integrated Tool Package CX-One Ver. 4.□	The CX-One is a comprehensive software package that integrates Support Software for OMRON PLCs and components. CX-One runs on the following OS. Windows XP (Service Pack 3 or higher), Vista , or 7 Note : Except for Windows XP 64-bit version CX-One Ver. 4.□ includes Network-Configurator Ver. 3. □ For details, refer to the CX-One Catalog (Cat. No. R134).	1 license *1	DVD *2	**CXONE-AL01D-V4**	—

*1. Multi licenses are available for the CX-One (3, 10, 30, or 50 licenses).
*2. The CX-One is also available on CD (CXONE-AL□□C-V4).

Automation Software Sysmac Studio

Please purchase a DVD and required number of licenses the first time you purchase the Sysmac Studio. DVDs and licenses are available individually. Each model of licenses does not include any DVD.

Product name	Specifications	Number of licenses	Media	Model	Standards
Sysmac Studio Standard Edition Ver.1.□□	The Sysmac Studio provides an integrated development environment to set up, program, debug, and maintain NJ-series Controllers and other Machine Automation Controllers, as well as EtherCAT slaves. Sysmac Studio runs on the following OS. Windows XP (Service Pack 3 or higher, 32-bit version)/Vista (32-bit version)/ 7 (32-bit/64-bit version) The Sysmac Studio Standard Edition DVD includes Support Software to set up EtherNet/IP Units, DeviceNet slaves, Serial Communications Units, and Support Software for creating screens on HMIs (CX-Designer). For details, refer to the Sysmac Integrated Catalogue (P072).	— (Media only)	DVD	**SYSMAC-SE200D**	—
		1 license *	—	**SYSMAC-SE201L**	—

* Multi licenses are available for the Sysmac Studio (3, 10, 30, or 50 licenses).

■FA Communications Software (EtherNet/IP Compatible)

Name	Specifications	Model	Standards
CX- Compolet *1	Software components that can make it easy to create programs for communications between a computer and controllers. This packaged product bundles CX-Compolet and SYSMAC Gateway with 1 license each. Supported execution environment: .NET Framework (1.1, 2.0, 3.0, 3.5 or 4.0) Development environment: Visual Studio .NET *2 /.NET2003/.NET2005/.NET2008/.NET2010 Development languages: Visual Basic .NET, Visual C#.NET, Visual Basic Ver. 5/6 *3 Supported communications: Equal to SYSMAC Gateway.	**WS02-CPLC1**	—
SYSMAC Gateway *1	Communications middleware for personal computers running Windows. Supports CIP communications and tag data links (EtherNet/IP) in addition to FinsGateway functions. This package includes SYSMAC Gateway with 1 licence. (Fins Gateway is also included.) Supported communications: RS-232C, USB, Controller Link, SYSMAC LINK, Ethernet, EtherNet/IP	**WS02-SGWC1**	—

Supported OS: Windows XP SP3 (32bit)/Vista (32bit)/7 (32bit/64bit)
Windows Server 2003 (32bit)/2008 (32bit/64bit)/2008 R2 (64bit)

*1. One license is required per computer.
*2. Only the components compatible with CX-Compolet version 2003 are supported.
A development environment of .NET 2003 or higher is required for CIP communications.
*3. Only functions provided by Compolet V2 as ActiveX controls are supported for Visual Basic version 5 or 6.
Notes: For details, Refer to the FA Communications Software Catalog (Cat. No. V302).

■NS-series PTs (EtherNet/IP Compatible)

Product name	Specifications				Model	Standards
	Effective display area	Number of dots	Ethernet	Case color		
NS5-V2	5.7-inch STN monochrome	320 x 240 dots	Yes	Black *	**NS5-MQ11B-V2**	UC1, N, L, CE, ULType4
	5.7-inch TFT color				**NS5-SQ11B-V2**	
	5.7-inch High-luminance TFT color				**NS5-TQ11B-V2**	
NS8-V2	8.4-inch TFT	640 x 480 dots			**NS8-TV01B-V2**	UC1, N, L, CE
NS10-V2	10.4-inch TFT	640 x 480 dots			**NS10-TV01B-V2**	UC1, CE, N, L, UL Type4
NS12-V2	12.1-inch TFT	800 x 600 dots			**NS12-TS01B-V2**	
NS15-V2	15-inch TFT	1,024 x 768 dots	Yes	Silver	**NS15-TX01S-V2**	
				Black	**NS15-TX01B-V2**	

* The PTs are also available with ivory colored frames. for details,Refer to the NS Series Catalog (Cat. No. V405).

■Industrial Switching Hubs

Product name	Specifications			Accessories	Current consumption (A)	Model	Standards
	Functions	No. of ports	Failure detection				
Industrial Switching Hubs	Quality of Service (QoS): EtherNet/IP control data priority Failure detection: Broadcast Storm and LSI error detection 10/100Base-TX, Auto-negotiation	3	No	•Power supply connector	0.22	**W4S1-03B**	UC, CE
		5	No		0.22	**W4S1-05B**	
		5	Yes	•Power supply connector •Connector for informing error	0.22	**W4S1-05C**	CE

■FA Wireless LAN Units

Product name	Applicable area	Type	Model	Standards
FA Wireless LAN Units	Japan	Access point (master)	**WE70-AP**	—
		Client (slave)	**WE70-CL**	

Note: 1. Includes Pencil Antenna, Mounting Magnet, and Mounting Screws.
2. Always use a model applicable for your area. Example: If the WE70-AP-US is used outside the USA, it is a violation of the Radio Law. There are applicable products for other areas, such as Europe, USA, Canada, and China. For details, refer to the FA Wireless LAN Unit Datasheet (Cat. No. N154).

■Vision Sensor /PC Vision System

Product name	Specifications	Model	Standards
Vision Sensor FZ4 Series	Quad Processing, High-speed, High-grade Controllers	**FZ4-H11**□□-□□	CE
	Quad Processing, High-speed Controllers	**FZ4-11**□□-□□	
	High-speed, High-grade Controllers	**FZ4-H7**□□-□□	
	High-speed Controllers	**FZ4-7**□□-□□	
	Standard, High-grade Controllers	**FZ4-H6**□□-□□	
	Standard Controllers	**FZ4-6**□□-□□	
	Lite Controllers	**FZ4-L3**□□-□□	
PC Vision System FJ Series	Core i5 2.4GHZ CPU Controllers	**FJ-**□□□□□-□□	CE
	Atom 1.6 GHz CPU Controllers	**FJ-3**□□-□□	

* For detail,refer to the Vision Sensor FZ4 Series Datasheet (Cat. No.Q189), PC Vision System FJ Series Datasheet (Q184)

Read and Understand this Catalog

Please read and understand this catalog before purchasing the product. Please consult your OMRON representative if you have any questions or comments.

Warranty and Limitations of Liability

WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.
OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSE OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

LIMITATIONS OF LIABILITY

OMRON SHALL NOT BE RESPONSIBLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY.

In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS REGARDING THE PRODUCTS UNLESS OMRON'S ANALYSIS CONFIRMS THAT THE PRODUCTS WERE PROPERLY HANDLED, STORED, INSTALLED, AND MAINTAINED AND NOT SUBJECT TO CONTAMINATION, ABUSE, MISUSE, OR INAPPROPRIATE MODIFICATION OR REPAIR.

Application Considerations

SUITABILITY FOR USE

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the product in the customer's application or use of the product.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.
  Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

Disclaimers

CHANGE IN SPECIFICATIONS

Product specifications and accessories may be changed at any time based on improvements and other reasons. Consult with your OMRON representative at any time to confirm actual specifications of purchased product.

DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

PERFORMANCE DATA

Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

Note: Do not use this ducument to operate the Unit.

OMRON Corporation **Industrial Automation Company**

Tokyo, JAPAN

Contact: 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
One Commerce Drive Schaumburg,
IL 60173-5302 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 2008-2012 All Rights Reserved.
In the interest of product improvement,
specifications are subject to change without notice.

Printed in Japan

Cat. No. R150-E1-10 0812(0908)

Automatización Eléctrica
Especialistas en Automatización

Below is a list of articles with direct links to our shop Electric Automation Network where you can see:

- Quote per purchase volume in real time.
- Online documentation and datasheets of all products.
- Estimated delivery time enquiry in real time.
- Logistics systems for the shipment of materials almost anywhere in the world.
- Purchasing management, order record and tracking of shipments.

To access the product, click on the green button.

Product	Code	Reference	Product link
Operator Interface, NS Series - TFT 12.1 "Color Ethernet (Black)	204268	NS12-TS01B-V2	Buy on EAN
Control system, RS-232C Interface for CP1	209403	CP1W-CIF01	Buy on EAN
Operator Interface, NS Series - TFT 8.4 "Color Ethernet (Black)	209579	NS8-TV01B-V2	Buy on EAN
Operator Interface, NS Series - TFT 10.4 "Color Ethernet (Black)	209583	NS10-TV01B-V2	Buy on EAN
Operator Interface, NS Series - TFT 5.7 "Ethernet Color (Black)	250155	NS5-SQ11B-V2	Buy on EAN
Operator Interface, NS Series - High contrast TFT 5.7 "Ethernet Color (Black)	250159	NS5-TQ11B-V2	Buy on EAN
Control System, Module Ethernet / IP	258403	CJ1W-EIP21	Buy on EAN
Operator Interface, NS Series - TFT 15 "Color (Grey)	258566	NS15-TX01S-V2	Buy on EAN
Operator Interface, NS Series - TFT 15 "Color (Black)	304977	NS15-TX01B-V2	Buy on EAN
Control system, CPU 2560 E / S 150 kSteps 352 Kw Ethernet Data / IP	249801	CJ2H-CPU66-EIP	Buy on EAN
Control system, Ethernet CPU 60K steps	392400	CJ2M-CPU35	Buy on EAN
Control system, CPU 2560 E / S 50 160 Kw kSteps Ethernet Data / IP	249799	CJ2H-CPU64-EIP	Buy on EAN
Control system, Ethernet CPU 30K steps	392399	CJ2M-CPU34	Buy on EAN
Control system, Ethernet CPU 20K steps	392398	CJ2M-CPU33	Buy on EAN

Control system, Ethernet CPU 10K steps	392397	CJ2M-CPU32	Buy on EAN
Control system, Ethernet CPU 5K steps	392396	CJ2M-CPU31	Buy on EAN
Machine Controllers, NJ501 Axis Machine Controller 16	355309	NJ501-1300	Buy on EAN
Machine Controllers, NJ301 4 Axis Machine Controller	363842	NJ301-1100	Buy on EAN
Control System, Module Ethernet / IP	296519	CS1W-EIP21	Buy on EAN
Machine Controllers, NJ301 Machine Controller 8 Axles	363924	NJ301-1200	Buy on EAN
Control system, CPU 2560 E / S 400 832 Kw Data kSteps	268700	CJ2H-CPU68	Buy on EAN
Security Product, Router Ethernet / IP-DeviceNet	241369	NE1A-EDR01	Buy on EAN
Control system, CPU 2560 E / S 250 512 Kw kSteps Ethernet Data / IP	249802	CJ2H-CPU67-EIP	Buy on EAN
Control system, CPU 2560 E / S 400 832 Kw kSteps Ethernet Data / IP	249803	CJ2H-CPU68-EIP	Buy on EAN
Control system, CPU 2560 E / S 50 160 Kw Data kSteps	268696	CJ2H-CPU64	Buy on EAN
Machine Controllers, Controller 32 Machine NJ501 Axles	355310	NJ501-1400	Buy on EAN
Machine Controllers, Controller 64 Machine NJ501 Axles	355311	NJ501-1500	Buy on EAN
Control system, Sysmac Studio Standard Edition 1 License	355295	SYSMAC-SE201L	Buy on EAN
Control system, CPU 2560 E / S 100 kSteps 160 Kw Ethernet Data / IP	249800	CJ2H-CPU65-EIP	Buy on EAN
Control system, CPU 2560 E / S 100 kSteps 160 Kw Data	268697	CJ2H-CPU65	Buy on EAN
Sistemas for Control, Sysmac Studio Standard Edition DVD	355294	SYSMAC-SE200D	Buy on EAN
Control system, CPU 2560 E / S 150 kSteps 352 Kw Data	268698	CJ2H-CPU66	Buy on EAN
Control system, CPU 2560 E / S 250 512 Kw Data kSteps	268699	CJ2H-CPU67	Buy on EAN