

SYSMAC-XR







# Various software components help reduce programming time

The Sysmac Library is a collection of software functional components that can be used in programs for the NJ/NX Machine Automation Controllers or Industrial PC Platform NY IPC Machine Controller. Packed with Omron's rich technical know-how on control programs, the Sysmac Library makes advanced control easy. Install the Sysmac Library to use it in the Sysmac Studio.



## Components for various devices

Omron offers Function Blocks for a wide range of applications: advanced control such as vibration suppression and temperature control, motion control such as PID feedforward, and connection to servo drives or sensors.



Note. For controllers and versions that can be used for the Sysmac Library, refer to the Version Information.



To production engineers

## Advanced control

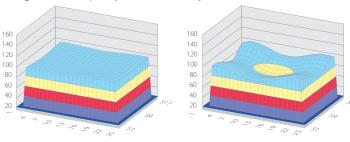
### Vibration suppression

Vibration suppression during and after high-speed material handling prevents vibration, slides, and spilling, significantly reducing machine cycle time.



### Temperature control

In-furnace temperature variations can be reduced (temperature uniformity control), and the temperature can be distributed unevenly (temperature gradient control). A rapid increase in the temperature (rapid temperature increase) without overshooting stabilizes quality and reduces cycle time.



Temperature uniformity control

Temperature gradient control



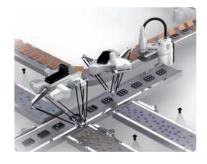
To production engineers

## Various motion control

Integration of the controller, EtherCAT, and Sysmac Library makes various motion control possible.







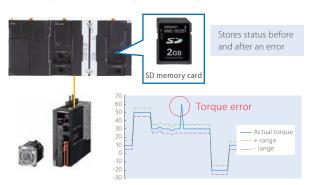


To maintenance engineers

## Productivity improvement

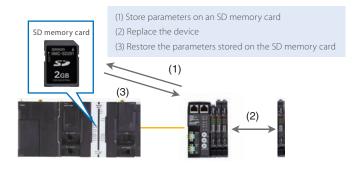
## Device operation monitoring

You can easily monitor devices such as air cylinders, sensors, and servo systems that often cause intermittent stoppages. Detecting deterioration over time or errors of devices prevents machines from stopping suddenly in advance, improving operating efficiency. The status of devices before and after the occurrence of an error can be stored on an SD memory card. This allows you to identify the cause of the error.



## Reduction of setup, changeover, and maintenance times

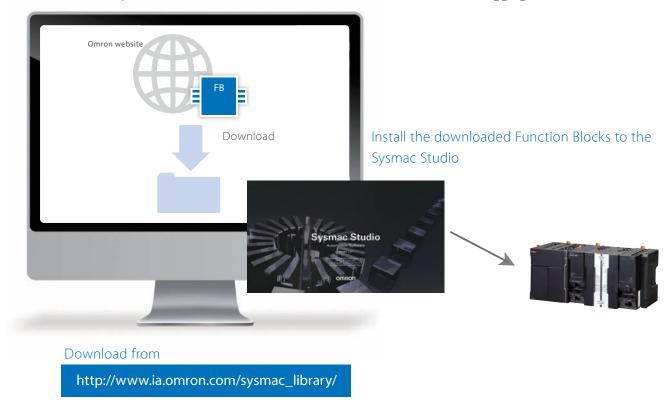
Function Blocks facilitate the connection of devices to the controller and provide Backup and Restoration functions for quick setting change and recovery.



## Easy-to-obtain Library

The Sysmac Library is freely available to download from Omron website.

These software components can be used for the NJ/NX/NY Controller without debugging.



## High quality products with reliable global support

With our worldwide network for support, Omron will support you to meet your control requirements and solve your problems by using the Sysmac Library.

We will provide technical support even after the shipment of your products using the Sysmac Library



# Sysmac Library SYSMAC-XR

## Sysmac Library for advanced control

The Sysmac Library for the NJ/NX Machine Automation Controller or Industrial PC Platform NY IPC Machine Controller provides Function Blocks packed with know-how that makes advanced control easy.



#### **Features**

- For a wide range of applications: advanced control such as vibration suppression and temperature control, motion control such as PID feedforward, and connecting to servo drives or sensors.
- Available to download from OMRON's website. Install the library to use in the Sysmac Studio.
   Library specially designed for the NJ/NX Machine Automation Controller or Industrial PC Platform NY IPC Machine Controller reduces programming and debugging time.
- High quality product with reliable global support.

## **Ordering Information**

Sysmac Library
Sysmac Library is POU Libraries (Function Block and Function) provided for NJ/NX/NY-series Controller.
Please download it from following URL and install to Sysmac Studio.
http://www.ia.omron.com/sysmac\_library/

Product	Features	Model	Standards
MC Test Run Library	The MC Test Run Library is used to perform a test run that the MC Function Module is used. In this library, a processing to operate axes that an MPG (i.e. a manual pulse generator) was used is provided.  You can use this library to reduce manpower of programming when creating a test run program that an MPG was used.	SYSMAC-XR001	
MC Command Table Library	The MC Command Table Library is used to continuously perform positioning that the MC Function Module is used. You can use this library together with motion control instructions of the NJ/NX/NY-series Controller.  The program that multiple motion control instructions are used will be unnecessary by using this library.	SYSMAC-XR002	
MC Tool Box Library	The MC Tool Box Library is used to implement a program to perform motor control in the user program. The processings such as PID processing and filter processing are provided in this library. You can use this library to reduce manpower of programming when creating a program to perform motor control.	SYSMAC-XR003	
EtherCAT G5 Series Library	The EtherCAT G5 Series Library is used to initialize the absolute encoder, back up and restore the parameters for an OMRON G5-series Servo Drive with built-in EtherCAT communications.  You can use this library to reduce manpower of programming when implementing the processing for a Servo Drive.	SYSMAC-XR004	
EtherCAT N-Smart Series Library	The EtherCAT N-Smart Series Library is used to back up and restore the parameters for an OMRON E3NW Sensor Communications Unit (an EtherCAT type). You can use this library to reduce manpower of programming when implementing the processing for a Sensor Communications Unit.	SYSMAC-XR005	
Vibration Suppression Library	The Vibration Suppression Library is used to suppress residual vibration caused by the operation of machines.  You can use this library together with motion control instructions of the NJ/NX/NY-series Controller.	SYSMAC-XR006	
Temperature Control Library	The Temperature Control Library is used to perform a high-level temperature control. You can use this library together with analog control instructions of the NJ/NX/NY-series Controller.	SYSMAC-XR007	
Device Operation Monitor Library	The Device Operation Monitor Library is used to monitor the operation of devices such as air cylinders, sensors, motors, and other devices.	SYSMAC-XR008	
Adept Robot Control Library	The Adept Robot Control Library is used to directly control Adept Robots from NJ/NX-series CPU Unit or NY-series Industrial PC. You can use this library to control any types of robots like parallel, SCARA and articulated from PLC with common instructions and a common programming method.	SYSMAC-XR009	
Weighing Control Library	The Weighing Control Library is used to perform weighing control of raw materials for industrial products with NX-series Load Cell Input Unit NX-RS1201. Also, functions that are used to display and correct measurement values are included. You can use this Weighing Control Library to reduce programming work when you implement processing for weighing in each device.	SYSMAC-XR010	
EtherCAT 1S Series Library	The EtherCAT 1S Series Library is used to initialize the absolute encoder, back up and restore the parameters for an OMRON 1S-series Servo Drive with built-in EtherCAT communications. You can use this library to reduce manpower of programming when implementing the processing for a Servo Drive.	SYSMAC-XR011	
Packaging Machine Library	The Packaging Machine Library is used to control various packaging machines with NJ/NX-series CPU Unit or NY-series Industrial PC.  The Packaging Machine Library enables accurate and high-speed packaging processing, and reduction of programming man-hour as well as man-hour to start up packaging system.  The use of PackML-compliant PackML Support Function Blocks facilitates compliance with the PackML standard.	SYSMAC-XR012	
Servo Press Library	The Servo Press Library is used to generate the operation commands and monitor the operations of actuator for servo presses with NJ/NX-series CPU Unit or NY-series Industrial PC. You can use the Servo Press Library to realize the high-speed and high precision servo press control and reduce programming work.	SYSMAC-XR013	
Dimension Measurement Library	Dimension Measurement Library is the system which connects the NJ/NX-series CPU Unit or NY-series Industrial PC, ZW-7000/5000 Confocal Fiber Displacement Sensor Controller, and E9NC-TA0 Contact-Type Smart Sensor through EtherCAT communications. It is used when you perform various dimension measurements. When you use the Dimension Measurement Library, you can improve measurement accuracy, enlarge measurement range, and reduce programming work.	SYSMAC-XR014	
Safety System Monitor Library	The Safety System Monitor Library is used to monitor the safety system information. You can use this library to manage the information of the running safety system.	SYSMAC-XR015	

**Automation Software**Please purchase a DVD and licenses the first time you purchase the Sysmac Studio. DVDs and licenses are available individually. The license does not include the DVD.

	Specifications				
Product		Number of licenses	Media	Model	Standards
Sysmac Studio Standard Edition	The Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance of machine automation controllers including the NJ/NX Series CPU Units, NY-series Industrial PC, EtherCAT Slave, and the HMI.  Sysmac Studio runs on the following OS.  Windows 7 (32-bit/64- bit version) / Windows 8 (32-bit/64-bit version) /	 (Media only)	DVD	SYSMAC-SE200D	
Ver.1.	Windows 8.1 (32-bit/64-bit version)/ Windows 10 (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 (Cat. No. P072).	1 license *	_	SYSMAC-SE201L	

 $<sup>\</sup>mbox{\ensuremath{\$}}$  Multi licenses are available for the Sysmac Studio (3, 10, 30, or 50 licenses).

## **Version Information**

Sysmac Library								Applicab	le Models	
Product				NJ/NX	-series CF	PU Unit		NY-series Industrial PC	Sysmac	
Name	Model	Version	NX701-	NJ501- □□□□	NJ301-	NJ101-	NX1P2-	NY5□□ -1	Studio	Related Products
MC Test Run Library	SYSMAC-XR001	Ver.1.1	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later *1	Ver.1.13 or later *3	Ver.1.12 or later	Ver.1.14 or higher	Incremental Encoder Input Unit (NX-EC \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
MC Command Table Library	SYSMAC-XR002	Ver.1.1	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later *1 *2	Ver.1.13 or later *3 *4	Ver.1.12 or later	Ver.1.14 or higher	G5-series Servo Drive (R88D-KN□□□-ECT) Ver.2.10 or later
MC Tool Box Library	SYSMAC-XR003	Ver.1.1	Ver.1.10 or later	Ver.1.08 or later	Ver.1.08 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.14 or higher	
EtherCAT G5 Series Library	SYSMAC-XR004	Ver.1.1	Ver.1.10 or later	Ver.1.01 or later	Ver.1.01 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.14 or higher	G5-series Servo Drive (R88D-KN□□□-ECT) Ver.2.10 or later SD Memory Card (HMC-SD□□□)
EtherCAT N-Smart Series Library	SYSMAC-XR005	Ver.1.2	Ver.1.10 or later	Ver.1.01 or later	Ver.1.01 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.14 or higher	N-Smart Sensor Communications Unit (E3NW-ECT) Ver.1.03 or later (The E3NX-CA0 is supported for Ver.1.06 or later.) Distributed Sensor Unit (E3NW-DS) Smart Fiber Amplifier Unit (E3NX-FA0) Color Fiber Amplifier Unit (E3NX-CA0) Smart Laser Amplifier Unit (E3NC-LA0) Smart Laser Amplifier Unit (CMOS type)(E3NC-SA0) Contact-Type Smart Amplifier Unit (E9NC-TA0) SD Memory Card (HMC-SD
Vibration Suppression Library	SYSMAC-XR006	Ver.1.0	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later *1	Ver.1.13 or later *3	Ver.1.12 or later	Ver.1.14 or higher	
Temperature Control Library	SYSMAC-XR007	Ver.1.0	Ver.1.10 or later	Ver.1.02 or later	Ver.1.02 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.14 or higher	
Device Operation Monitor Library	SYSMAC-XR008	Ver.1.0	Ver.1.10 or later	Ver.1.01 or later	Ver.1.01 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.14 or higher	G5-series Servo Drive (R88D-KN□□□-ECT) Ver.2.10 or later  N-Smart Sensor Communications Unit (E3NW-ECT) Ver.1.03 or later Distributed Sensor Unit (E3NW-DS) Smart Fiber Amplifier Unit (E3NX-FA0) Smart Laser Amplifier Unit (E3NC-LA0) Smart Laser Amplifier Unit (E3NC-LA0) Contact-Type Smart Amplifier Unit (E9NC-TA0) SD Memory Card (HMC-SD□□□)
Adept Robot Control Library	SYSMAC-XR009	Ver.2.0	Ver.1.10 or later	Ver.1.01 or later	Ver.1.01 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.15 or higher	SCARA Robot Cobra 350 Ver.2.3.C or later eCobra 600/800 Ver.2.3.C or later Parallel Robot Hornet 565 Ver.2.3.C or later Quattro 650H/HS Ver.2.3.C or later, 800H Ver.2.3.C or later Articulated Robot Viper 650/850 Ver.2.3.C or later SmartController EX Ver.2.3.C or later T20 Pendant
Weighing Control Library	SYSMAC-XR010	Ver.1.0	Ver.1.10 or later	Ver.1.05 or later	Ver.1.05 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.16 or higher	NX-series LoadCell I/F Unit (NX-RS0     Ver.1.0 or later
EtherCAT 1S Series Library	SYSMAC-XR011	Ver.1.0	Ver.1.10 or later	Ver.1.01 or later	Ver.1.01 or later	Ver.1.10 or later	Ver.1.13 or later	Ver.1.12 or later	Ver.1.16 or higher	1S-series Servo Drive (R88D-1SNECT)     Ver.1.0 or later     SD Memory Card (HMC-SD)
Packaging Machine Library	SYSMAC-XR012	Ver.1.0	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later	Ver.1.10 or later *1	Ver.1.13 or later *3	Ver.1.12 or later	Ver.1.14 or higher	G5-series Servo Drive (R88D-KN     Ver.2.10 or later     1S-series Servo Drive (R88D-1SN     Ver.1.0 or later
Servo Press Library	SYSMAC-XR013	Ver.1.0	Ver.1.10 or later	Ver.1.08 or later	Ver.1.08 or later	Ver.1.10 or later *1		Ver.1.12 or later	Ver.1.16 or higher	G5-series Servo Drive (R88D-KNDD-ECT)     Ver.2.10 or later     NX-series LoadCell I/F Unit (NX-RS0DDD)     Ver.1.0 or later

Sysmac Library								Applicab	le Models	
Product Name			NJ/NX-series CPU Unit			NY-series Industrial PC	Sysmac			
	Model	Version	NX701-	NJ501- □□□□	NJ301- □□□□	NJ101- □□□□	NX1P2-	NY5□□ -1	Studio	Related Products
Dimension Measurement Library	SYSMAC-XR014	Ver.1.1	Ver.1.10 or later	Ver.1.08 or later	Ver.1.08 or later	Ver.1.10 or later *5	Ver.1.13 or later	Ver.1.12 or later	Ver.1.15 or higher *6	N-Smart Sensor Communications Unit (E3NW-ECT) Ver.1.03 or later Contact-Type Smart Amplifier Unit (E9NC-TA0) ZW-7000 Confocal Fiber Type Displacement Sensor Ver.2.03 or later JW-5000 Confocal Fiber Type Displacement Sensor Ver.2.10 or later
Safety System Monitor Library	SYSMAC-XR015	Ver.1.0	Ver.1.10 or later	Ver.1.07 or later	Ver.1.07 or later	Ver.1.10 or later		Ver.1.12 or later	Ver.1.14 or higher	NX-series Safety Control Unit (NX-SL3 ) Ver.1.00 or later NX-series Communications Coupler Unit (NX-ECC201) Ver.1.2.1 or later Communications Coupler Unit (NX-ECC202) Ver.1.2.1 or later Communications Coupler Unit (NX-ECC203) Ver.1.3 or later

**<sup>\*1.</sup>** This Library is not available for NJ101-90□□ CPU Units.

Note: Refer to each manual for more information.

## **Related Catalogs**

Product Name	Models	Cat. No.
MC Test Run Library	SYSMAC-XR001	P093
MC Command Table Library	SYSMAC-XR002	P092
MC Tool Box Library	SYSMAC-XR003	P098
EtherCAT G5 Series Library	SYSMAC-XR004	P095
EtherCAT N-Smart Series Library	SYSMAC-XR005	P094
Vibration Suppression Library	SYSMAC-XR006	P099
Temperature Control Library	SYSMAC-XR007	P100
Device Operation Monitor Library	SYSMAC-XR008	P101
Adept Robot Control Library	SYSMAC-XR009	P106
Weighing Control Library	SYSMAC-XR010	P109
EtherCAT 1S Series Library	SYSMAC-XR011	P110
Packaging Machine Library	SYSMAC-XR012	P111
Servo Press Library	SYSMAC-XR013	P112
Dimension Measurement Library	SYSMAC-XR014	P113
Safety System Monitor Library	SYSMAC-XR015	P119

<sup>\*2.</sup> When you use this function block with NJ101-10□□, you can use a maximum of two real servo axes.

\*3. This Library is not available for NX1P2-90□□□ CPU Units.

\*4. When you use this function block with NX1P2-10□□□□, you can use a maximum of two real servo axes.

\*5. When you use NJ101-90□□, you can not use DIM\_LineMeasurement\_V□.□.sir included in this library.

\*6. When you use ZW-5000, Sysmac studio is supported for Ver.1.18 or higher.

## **Related Manuals**

The followings are the manuals related to this product. Use these manuals for reference.

Cat. No.	Model number	Manual	Application	Description
W546	SYSMAC-XR001	Sysmac Library User's Manual for MC Test Run Library	Learning about the specifications of the function blocks in the MC Test Run Library	Describes the information that is necessary to use the function blocks in the MC Test Run Library.
W545	SYSMAC-XR002	Sysmac Library User's Manual for MC Command Table Library	Learning about the specifications of the function blocks in the MC Command Table Library	Describes the information that is necessary to use the function blocks in the MC Command Table Library.
W547	SYSMAC-XR003	Sysmac Library User's Manual for MC Tool Box Library	Learning about the specifications of the function blocks in the MC Tool Box Library	Describes the information that is necessary to use the function blocks in the MC Tool Box Library.
W548	SYSMAC-XR004	Sysmac Library User's Manual for EtherCAT G5 Series Library	Learning about the specifications of the function blocks in the EtherCAT G5 Series Library	Describes the information that is necessary to use the function blocks in the EtherCAT G5 series Library.
W549	SYSMAC-XR005	Sysmac Library User's Manual for EtherCAT N-Smart Series Library	Learning about the specifications of the function blocks in the EtherCAT N-Smart Series Library	Describes the information that is necessary to use the function blocks in the EtherCAT N-Smart series Library.
W550	SYSMAC-XR006	Sysmac Library User's Manual for Vibration Suppression Library	Learning about the specifications of the function blocks in the Vibration Suppression Library	Describes the information that is necessary to use the function blocks in the Vibration Suppression Library.
W551	SYSMAC-XR007	Sysmac Library User's Manual for Temperature Control Library	Learning about the specifications of the function blocks in the Temperature Control Library	Describes the information that is necessary to use the function blocks in the Temperature Control Library.
W552	SYSMAC-XR008	Sysmac Library User's Manual for Device Operation Monitor Library	Learning about the specifications of the function blocks in the Device Operation Monitor Library	Describes the information that is necessary to use the function blocks in the Device Operation Monitoring Library.
W575	SYSMAC-XR009	NJ/NX-series Sysmac Library User's Manual for Adept Robot Control Library	Learning about the specifications of the function blocks in the Adept Robot Control Library	Describes the information that is necessary to use the function blocks in the Adept Robot Control Library
W569	SYSMAC-XR010	Sysmac Library User's Manual for Weighing Control Library	Learning about the specifications of the function blocks in the Weighing Control Library	Describes the information that is necessary to use the function blocks in the Weighing Control Library.
W571	SYSMAC-XR011	Sysmac Library User's Manual for EtherCAT 1S Series Library	Learning about the specifications of the function blocks in the EtherCAT 1S Series Library	Describes the information that is necessary to use the function blocks in the EtherCAT 1S series Library.
W572	SYSMAC-XR012	Sysmac Library User's Manual for Packaging Machine Library	Learning about the specifications of the function blocks in the Packaging Machine Library	Describes the information that is necessary to use the function blocks in the Packaging Machine Library.
W573	SYSMAC-XR013	Sysmac Library User's Manual for Servo Press Library	Learning about the specifications of the function blocks in the Servo Press Library	Describes the information that is necessary to use the function blocks in the Servo Press Library.
W574	SYSMAC-XR014	Sysmac Library User's Manual for Dimension Measurement Library	Learning about the specifications of instructions for the function blocks in the Dimension Measurement Library	Describes the information that is necessary to use the function blocks in the Dimension Measurement Library.
W582	SYSMAC-XR015	Sysmac Library User's Manual for Safety System Monitor Library	Learning about the specifications of the function blocks in the Safety System Monitor Library	Describes the information that is necessary to use the function blocks in the Safety System Monitor Library.
W501	NX701	NJ/NX-series CPU Unit Software User's Manual	Learning how to program and set up an NJ/NX-series CPU Unit. Mainly software information is provided.	The following information is provided on a Controller built with an NJ/NX-series CPU Unit.  • CPU Unit operation  • CPU Unit features  • Initial settings  • Programming language specifications and programming with the IEC 61131-3 standard. Use this manual together with the NJ-series CPU Unit Hardware User's Manual (Cat. No. W500).
W502	NX701-	NJ/NX-series Instructions Reference Manual	Learning about the specifications of the instruction set that is provided by OMRON	The instructions in the instruction set (IEC 61131-3 specifications) are described. Use this manual together with the <i>NJ-series CPU Unit Hardware User's Manual</i> (Cat. No. W500) and <i>NJ/NX-series CPU Unit Software User's Manual</i> (Cat. No. W501).
W504	SYSMAC- SE2	Sysmac Studio Version 1 Operation Manual	Learning about the operating procedures and functions of the Sysmac Studio.	Describes the operating procedures of the Sysmac Studio.
W507	NX701 NX1P2 NJ501 NJ301 NJ101	NJ/NX-series CPU Unit Motion Control User's Manual	Learning about motion control settings and programming concepts	The settings and operation of the CPU Unit and programming concepts for motion control are described.  Use this manual together with the <i>NJ-series CPU Unit Hardware User's Manual</i> (Cat. No. W500) and <i>NJ/NX-series CPU Unit Software User's Manual</i> (Cat. No. W501).
W508	NX701 NX1P2	NJ/NX-series Motion Control Instructions Reference Manual	Learning about the specifications of the motion control instructions that are provided by OMRON	The motion control instructions are described. Use this manual together with the <i>NJ-series CPU Unit Hardware User's Manual</i> (Cat. No. W500), <i>NJ/NX-series CPU Unit Software User's Manual</i> (Cat. No. W501) and <i>NJ/NX-series CPU Unit Motion Control User's Manual</i> (Cat. No.W507).

Cat. No.	Model number	Manual	Application	Description
W558	NY532 NY512	NY-series IPC Machine Controller Industrial Panel PC / Industrial Box PC Software User's Manual	Learning how to program and set up the Controller functions of an NY-series Industrial PC.	The following information is provided on NY-series Machine Automation Control Software.  • Controller operation  • Controller features  • Controller settings  • Programming based on IEC 61131-3 language specifications
W560	NY532-□□□ NY512-□□□	NY-series Instructions Reference Manual	Learning detailed specifications on the basic instructions of an NY-series Industrial PC.	The instructions in the instruction set (IEC 61131-3 specifications) are described.
W559	NY532-□□□ NY512-□□□	NY-series IPC Machine Controller Industrial Panel PC / Industrial Box PC Motion Control User's Manual	Learning about motion control settings and programming concepts of an NY-series Industrial PC.	The settings and operation of the Controller and programming concepts for motion control are described.
W561	NY532-□□□ NY512-□□□	NY-series Motion Control Instructions Reference Manual	Learning about the specifications of the motion control instructions of an NY-series Industrial PC.	The motion control instructions are described.
1586	R88M-1□ R88D-1SN□-ECT	AC Servomotors/Servo Drives 1S-series with Built- in EtherCAT® Communications User's Manual	Learning how to use the Servomotors/Servo Drives with built-in EtherCAT Communications.	Describes the hardware, setup methods and functions of the Servomotors/Servo Drives with built-in EtherCAT Communications.
1576	R88M-K□ R88D-KN□-ECT	G5-series AC Servomotors/ Servo Drives (Built-in EtherCAT® Communications) User's Manual	Learning how to use the AC Servomotors/Servo Drives with built-in EtherCAT Communications.	Describes the hardware, setup methods and functions of the AC Servomotors/Servo Drives with built-in EtherCAT Communications.
E429	E3NW-ECT	E3NW-ECT EtherCAT® Digital Sensor Communication Unit Operation Manual	Learning how to use E3NW-ECT EtherCAT® Digital Sensor Communication Unit	Provides the specifications of and describes application methods for E3NW-ECT EtherCAT <sup>®</sup> Digital Sensor Communication Unit.
Z362	ZW-7000□/5000□	ZW-7000/5000 series Confocal Fiber Type Displacement Sensor User's Manual	Learning how to use the ZW-7000/5000 series Confocal Fiber Type Displacement Sensors.	Describes the hardware, setup methods and functions of the ZW-7000/5000 series Confocal Fiber Type Displacement Sensors.
Z930	NX-SL	NX-series Safety Control Unit User's Manual	Learning how to use the NX- series Safety Control Units.	Describes the hardware, setup methods, and functions of the NX-series Safety Control Units.

Sysmac is a trademark or registered trademark of OMRON Corporation in Japan and other countries for OMRON factory automation products. Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

 $Ether CAT ^{\circ} \ is \ registered \ trademark \ and \ patented \ technology, \ licensed \ by \ Beckhoff \ Automation \ GmbH, \ Germany.$ 

EtherNet/IP $^{\text{TM}}$  is a trademark of the ODVA.

The SD logo is a trademark of SD-3C, LLC.

Other company names and product names in this document are the trademarks or registered trademarks of their respective companies.



#### OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • www.omron247.com

#### OMRON CANADA, INC. • HEAD OFFICE

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • www.omron247.com

#### **OMRON ELECTRONICS DE MEXICO • HEAD OFFICE**

México DF • 52.55.59.01.43.00 • 01-800-226-6766 • mela@omron.com

#### **OMRON ELECTRONICS DE MEXICO • SALES OFFICE**

Apodaca, N.L. • 52.81.11.56.99.20 • 01-800-226-6766 • mela@omron.com

#### **OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE**

São Paulo, SP, Brasil • 55.11.2101.6300 • www.omron.com.br

**OMRON ARGENTINA • SALES OFFICE** 

Cono Sur • 54.11.4783.5300

**OMRON CHILE • SALES OFFICE** 

Santiago • 56.9.9917.3920

OTHER OMRON LATIN AMERICA SALES

54.11.4783.5300

OMRON EUROPE B.V. • Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. • +31 (0) 23 568 13 00 • www.industrial.omron.eu

Authorized Distributor:

#### Controllers & I/O

- Machine Automation Controllers (MAC) Motion Controllers
- $\bullet \ Programmable \ Logic \ Controllers \ (PLC) \bullet Temperature \ Controllers \bullet Remote \ I/O$

#### **Robotics**

• Industrial Robots • Mobile Robots

#### **Operator Interfaces**

• Human Machine Interface (HMI)

#### **Motion & Drives**

- Machine Automation Controllers (MAC) Motion Controllers Servo Systems
- Frequency Inverters

#### **Vision, Measurement & Identification**

 $\bullet \ Vision \ Sensors \ \& \ Systems \ \bullet \ Measurement \ Sensors \ \bullet \ Auto \ Identification \ Systems$ 

#### Sensing

- Photoelectric Sensors Fiber-Optic Sensors Proximity Sensors
- Rotary Encoders Ultrasonic Sensors

#### Safety

- Safety Light Curtains Safety Laser Scanners Programmable Safety Systems
- Safety Mats and Edges Safety Door Switches Emergency Stop Devices
- Safety Switches & Operator Controls Safety Monitoring/Force-guided Relays

#### **Control Components**

- Power Supplies Timers Counters Programmable Relays
- Digital Panel Meters Monitoring Products

#### **Switches & Relays**

- Limit Switches Pushbutton Switches Electromechanical Relays
- Solid State Relays

#### Software

• Programming & Configuration • Runtime

© 2017 Omron. All Rights Reserved.

