

NJ-series Machine Automation Controller SECS/GEM CPU Unit

NJ501-1340



HSMS
communications

S7,F1 Process Program Load Inquire (PPI)
L,2
1. <PPID>
2. <LENGTH>
S7,F2 Process Program Load Grant (PPG)
<PPGNT>
S7,F23 Formatted Process Program Send (FPS)
L,4
1. <PPID>
2. <MDLN>
3. <SOFTREV>
4. L,c (c=Number of Process Commands)
1. L,2
1. <CCODE>
2. L,p (p=Number of Parameters)
1. <PPARM1>
p. <PPARMp>
2. L,2
c. L,2
S7,F24 Formatted Process Program Acknowledge (FPA)
<ACKC7>



NJ-series Machine Automation Controller with built-in semiconductor industry standard SECS/GEM communications functionality

Cost-effective

The SECS/GEM CPU Unit integrates machine control and host communications, reducing time, cost, and complexity to establish SECS/GEM communications.

Simple connection

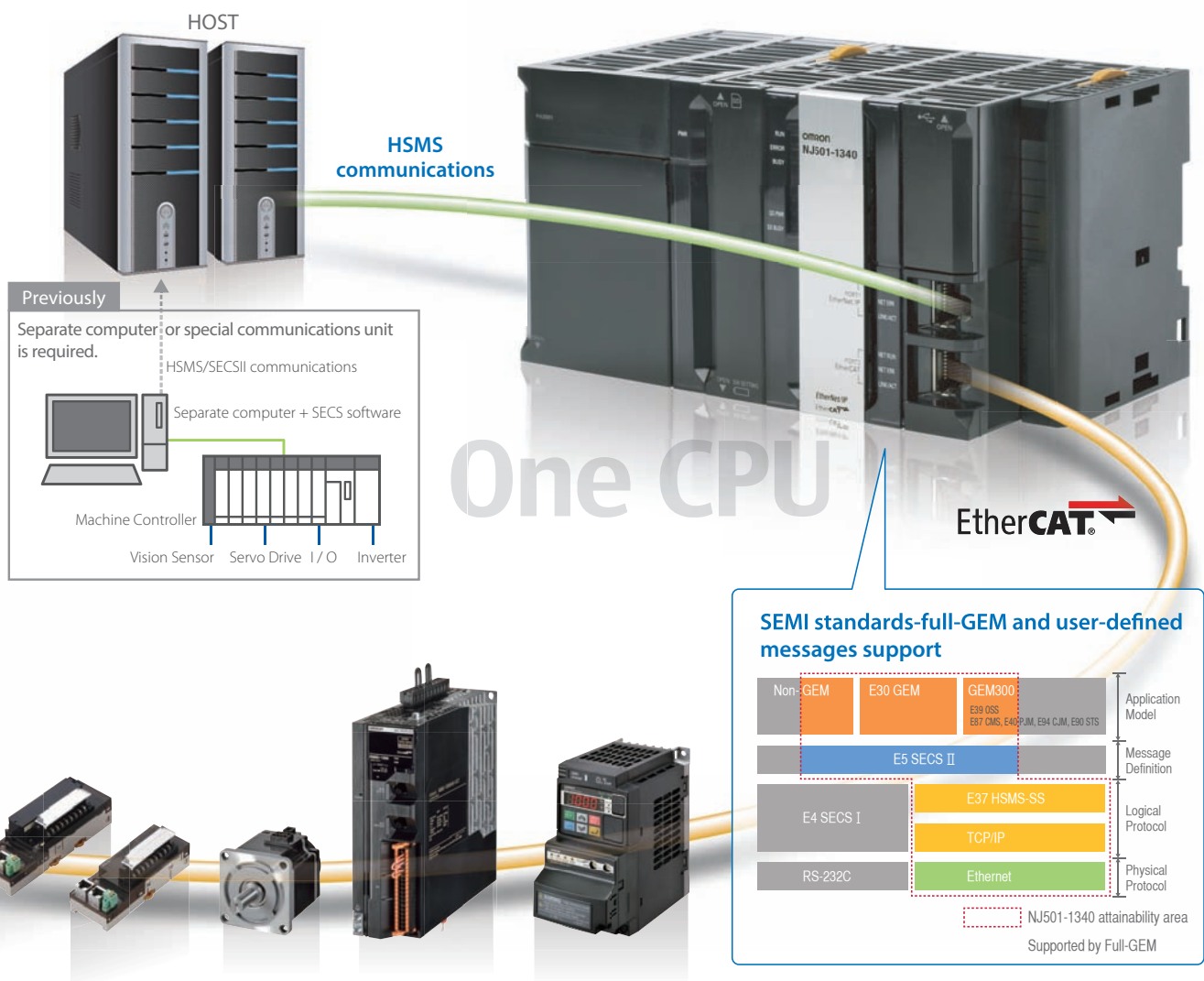
No separate computer, special communications Unit or software required

Save space in equipment

Direct connection of CPU Unit to host

No annual support contract

Reducing the running costs



Easy Design

User-friendly SECS/GEM Configurator facilitates project design.

Programming with variables

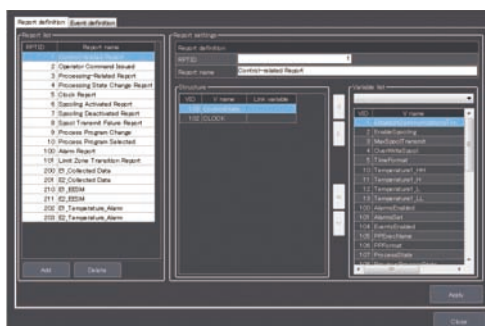
No need to specify memory addresses

One CPU Unit

No communications between separate computer and machine controller required

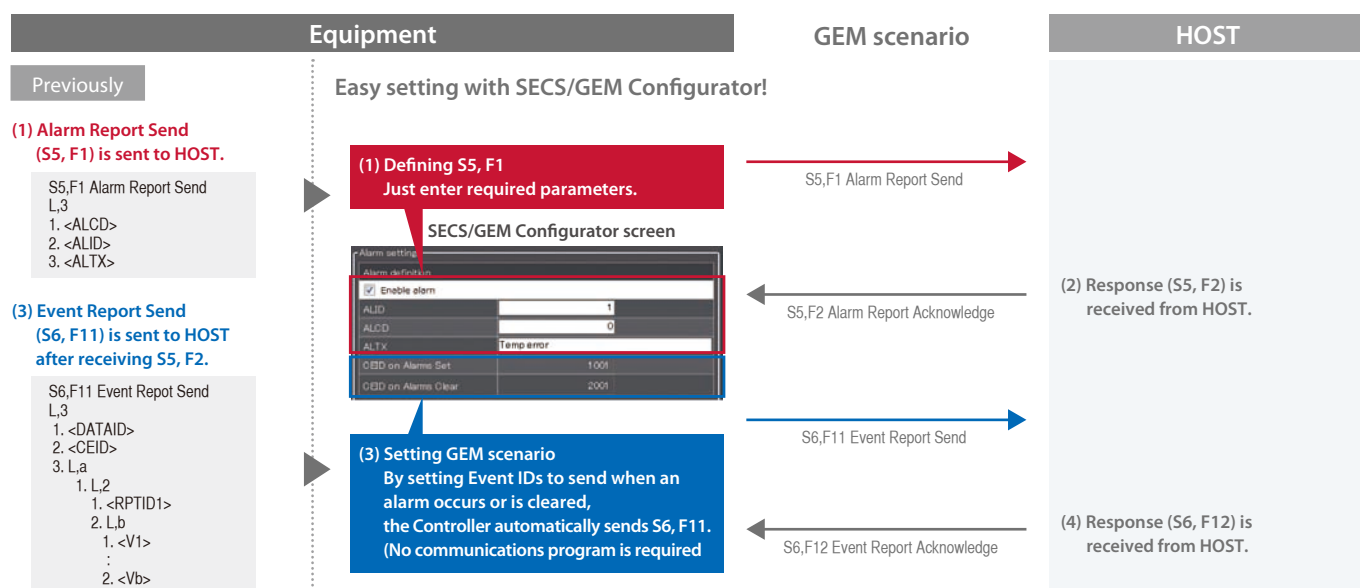
Quick SECS/GEM setting

Easy setting with SECS/GEM Configurator



SECS/GEM Configurator screen

SECS/GEM Setting Example (Alarm Report)




NJ501-1340

Ordering Information

International Standards

- The standards are abbreviated as follows: UC1: cULus, N: NK, L: Lloyd, CE: EU Directives, and KC: KC Registration. (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, CE: EU Directives, RCM: Regulatory Compliance Mark and KC: KC Registration.
- Contact your OMRON representative for further details and applicable conditions for these standards.

NJ-series CPU Unit

Product Name	Specifications				Current consumption (A)		Model	Standards
	I/O capacity/ Maximum number of configuration Units (Expansion Racks)	Program capacity	Memory capacity for variables	Number of motion axes	5 VDC	24 VDC		
NJ501 SECS/GEM CPU Unit 	2560 points/40 Units (3 Expansion Racks)	20 MB	2 MB: Retained during power interruptions 4 MB: Not retained during power interruptions	16	1.90	---	NJ501-1340	UC1, N, L, CE, RCM, KC

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.

Product Name	Specifications	Current consumption (A)		Model	Standards
		Number of licenses	Media		
Sysmac Studio Standard Edition version 1.□□	The Sysmac Studio is the software that provides an intergrated 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.	--- (media only)	Sysmac Studio (32-bit) DVD	SYSMAC-SE200D	---
	Sysmac Studio runs on the following OS. *1 Windows 7 (32-bit or 64-bit edition), Windows 8.1 (32-bit or 64-bit edition), Windows 10 (32-bit or 64-bit edition), or Windows 11 (64-bit edition)	--- (media only)	Sysmac Studio (64-bit) DVD	SYSMAC-SE200D-64	---
	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). Refer to your OMRON website for details.	1 license *2	---	SYSMAC-SE201L	---

*1 Model "SYSMAC-SE200D-64" runs on Windows 10 (64 bit) or higher.

*2 Sysmac Studio with multiple licenses is also provided (with 3, 10, 30, or 50 licenses).

SECS/GEM Configurator

Please purchase the required number of SECS/GEM Configurator licenses and a Sysmac Studio Standard Edition DVD the first time you purchase the SECS/GEM Configurator.

The Sysmac Studio Standard Edition DVD includes the SECS/GEM Configurator. The license does not include the DVD.

Product Name	Specifications	Current consumption (A)		Model	Standards
		Number of licenses	Media		
SECS/GEM Configurator Ver.1.□□	The SECS/GEM Configurator is the software to make HSMS, SECSII and GEM settings for NJ501 SECS/GEM CPU Units. The SECS/GEM Configurator runs on the following OS. Windows XP (Service Pack3 or higher, 32-bit edition), Windows Vista (32-bit edition), or Windows 7 (32-bit or 64-bit edition) The software is included in the Sysmac Studio Standard Edition DVD.	1 license	---	WS02-GCTL1	---

CPU Unit Accessories

The following accessories are provided with a CPU Unit.

Item	Specification
Battery	CJ1W-BAT01
End Cover	CJ1W-TER01 (Needs to be attached to the right of the CPU Rack.)
End Plate	PFP-M (2 pieces)
SD Memory Card (Flash Memory)	HMC-SD492

For details, refer to the data sheet of the Machine Automation Controller NJ-Series (Cat. No. P140).

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