OMRON

Sysmac Library for NJ/NX/NY Controller

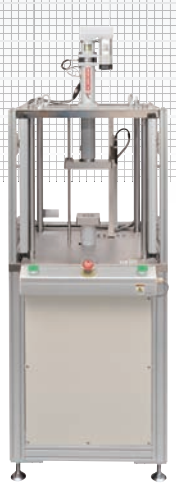
SYSMAC-XR013

Servo Press Library

Sysmac Library

Easily design systems to control devices for servo presses used in the press-fit process.

Issue 1	Shorter processing time is required.
Issue 2	Improvement in processing accuracy (tolerance etc.) and collection of detailed quality data are required.
Issue 3	The dedicated controller for a servo press increases machine cost.



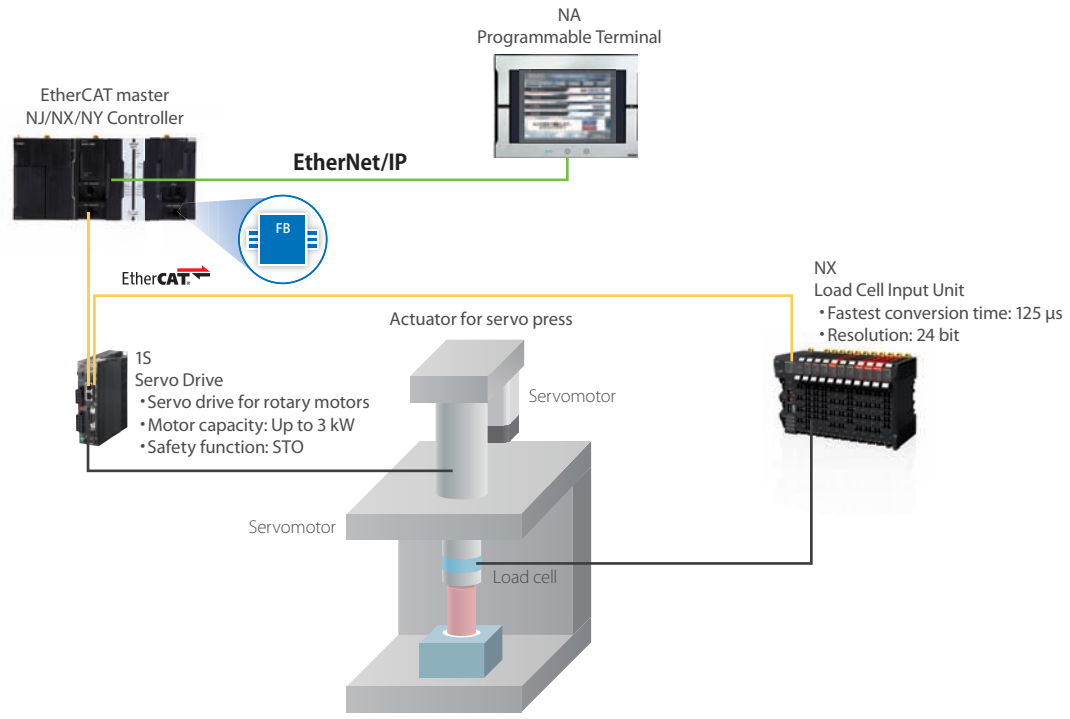
Servo Press Library offers solution!

Hardware (Sysmac family) and software (Sysmac Library) help improve both speed and quality of the press-fit process and eliminate the need for a dedicated controller for a servo press.

FB

- The Function Blocks and Functions in this library control actuators for the servo presses that are used in processing machines such as press fitting machines.

System configuration



sysmac
always in control

Compatible Models

Name	Model
Machine Automation Controller NJ/NX CPU Unit	NX701-1□□□ NJ101-1□□□
	NJ501-□□□□ NJ301-□□□□
	NX1P2-1□□□□□(1)
	NX102-□□□□
	NX502-□□□□
Industrial PC Platform NY IPC Machine Controller	NY5□□-1
	NY5□□-5
Automation Software Sysmac Studio	SYSMAC-SE2□□□
NX Load Cell Input Unit	NX-RS1201
1S Servo Drive with Built-in EtherCAT Communications	R88D-1SN□-ECT

Note. Refer to "Sysmac Library Catalog (P102)" for applicable version.

Function Block (FB)/Function (FUN) Specifications

Name		FB/FUN name	Description
Program operation	Single-axis Program Operation	SP_SingleAxisPrgOpr	Executes single-axis program operation that combines multiple single-axis motion controls.
	Program Status Control	SP_PrgStatusCtrl	Interprets the program data and controls the next function block step by step.
	Step Completion Determination	SP_StepCompleteJudge	Performs step completion determination based on the step completion conditions.
	Step Load Alarm Determination	SP_StepLoadAlarm	Performs step load alarm determination based on the step load alarm conditions.
	Program Load Alarm Determination	SP_PrgLoadAlarm	Performs program load alarm determination based on the program load alarm conditions.
Single-axis motion control	Single-axis Control	SingleAxisCtrl	Executes position control, velocity control, torque control, and torque feedback control.
	Torque-to-Load Conversion	TorqueToLoad	Converts the measured torque into a load value.
	Load-to-Torque Conversion	LoadToTorque	Converts a load value into a torque.
Save program operation results in CSV format	Program Operation Results Recorder	PrgOrgRsltRec	Records the results of single-axis program operation.
	Write Program Operation Results to SD Memory Card	PrgOprRsltCSVWrite	Writes the results of single-axis program operation to an SD Memory Card in CSV format.
Save trace results in CSV format	Add Program Operation Trace Records	PrgOprTracePut	Adds 10 trace data records to the program operation trace recorder at a time.
	Add Program Operation Trace Records 2	PrgOprTracePut2	
	Write from Program Operation Trace Recorder to SD Memory Card	PrgOprTraceCSVWrite	Writes the contents of the program operation trace recorder to an SD Memory Card in CSV format.
	Write from Program Operation Trace Recorder to SD Memory Card 2	PrgOprTraceCSVWrite2	
Display trace results on HMI	Broken Line Graph Trace Data Preparation	XYDataRec	Traces two different input values and prepares trace data for displaying a broken line graph on an NS/NA Programmable Terminal.
	Broken Line Graph Trace Data Preparation 2	XYDataRec2	
	Broken Line Graph Display Data Conversion	XYDataToGraph	Converts the trace data to data for displaying a broken line graph on an NS/NA Programmable Terminal.
	Broken Line Graph Display Data Conversion 2	XYDataToGraph2	

Note. A function block or function that the last number of its name is "2", supports a variable-length array. It is available for unit version 1.18 or later.

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

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Cat. No. P112-E1-03 0523(0616)