

Fuji Integrated Controllers **MICREX-SX** Series

# Programmable Controller SPF

Achieving Cost Efficiency and  
High Performance Processing



# SPF

# Achieves high cost performance

## Flexibly supports machinery and systems

- High processing performance corresponding to high-speed, high functioning
- Variety of extension units flexibly adapting to applications
- Realizing servo system with 4 axes of 200 kHz pulse output

# SPF

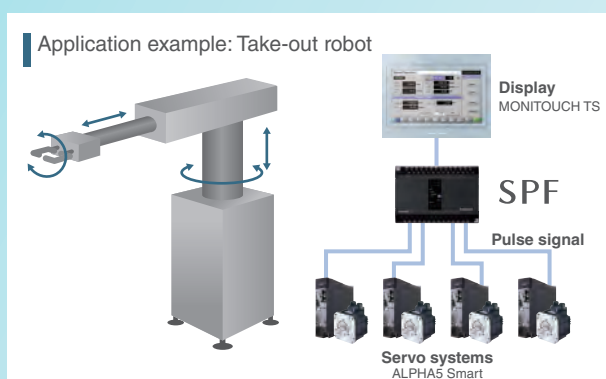


## High-speed processing

The unit has impressive sequence processing performance for machine control operations, as well as enhanced data processing capabilities. Instruction execution time is as fast as 0.3  $\mu$ s for basic instructions and 0.87  $\mu$ s for data instructions, enabling the unit to achieve the highest performance of its class. This contributes to improving production capacity.

## Positioning function

This function is compatible with a 200 kHz, 4-axis pulse output. It can be utilized for increasingly sophisticated and high-accuracy positioning.



## Two types of basic units for varying applications

SPF has two types of basic units: the high-functionality type basic unit (Type: NA0PA), which is suitable for positioning control while connected to a servo system; and the standard type basic unit (Type: NA0PB), which is suitable for the control of general equipment not supported by a servo system. It's possible to select a basic unit depending on applications.

## Rich communication functions

RS-232C, RS-485 and Ethernet communication can be established by simply mounting a small board to the basic unit. Communication functions can also be achieved through use of an extension unit on the left side.

## Operability Oriented Support Tool

SX-Programmer standard is a support tool, which is based on ladder programming basis. Function blocks (FB) can also be used corresponding to the control applications.

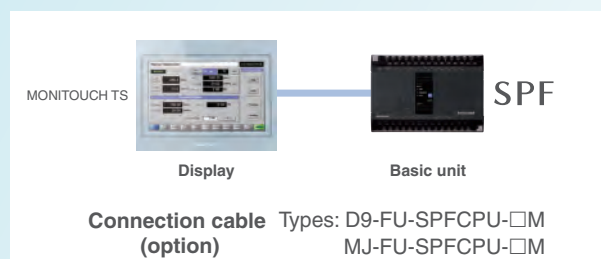
## Internal large-capacity memory

With enhancements to the functional system and increased data processing, the unit comes with a large-capacity program and data memory.

| Model     | Memory capacity |            |
|-----------|-----------------|------------|
|           | Program         | Data       |
| 14 points | 8 k steps       | 20 k words |
| 24 points |                 |            |
| 32 points | 20 k steps      | 40 k words |
| 40 points |                 |            |
| 60 points |                 |            |

## MONITOUCH connection function

SPF can be connected to the MONITOUCH via the loader port. It does not require any special communication equipment.



## Load cell unit

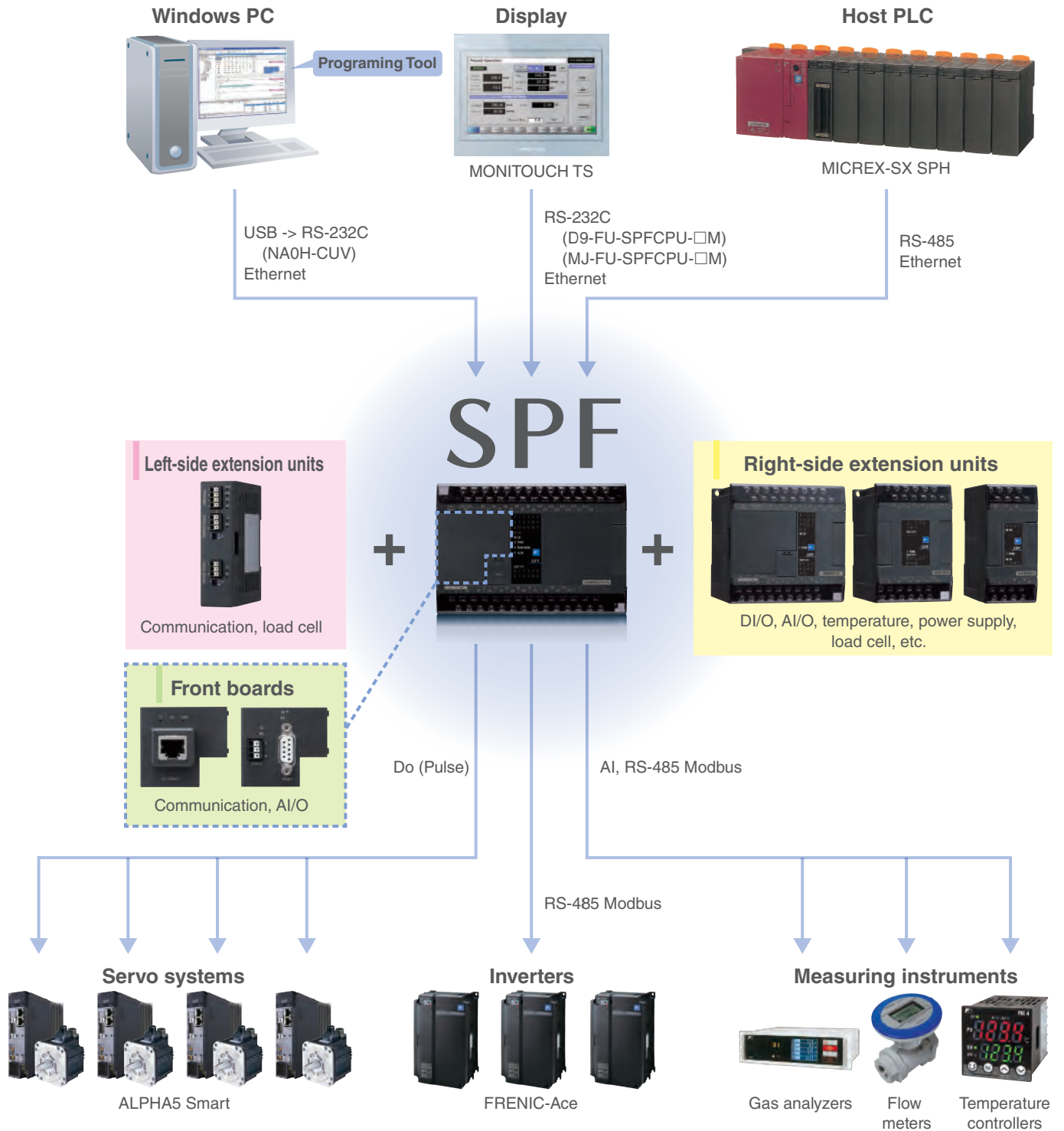
We offer a unique lineup of modules compatible with load cells used for metering and weighing systems, tank scales, etc. They can be applied to wide range of applications such as cement plants.

## Standard calendar function

A calendar function comes standard as an essential function for monitoring machinery and systems.



## Flexible system construction by using extension units



**Constructing optimal systems  
using Fuji components**

## Basic unit (CPU unit)

**14 points**  
Basic unit

### NA0PA-14T-34C

Power supply voltage: 24 V DC  
DI/O: input 8 points, output 6 points  
Output type: Tr sink output  
Detachable terminal block

### NA0PB-14R-34C

Power supply voltage: 24 V DC  
DI/O: input 8 points, output 6 points  
Output type: Ry output

**24 points**  
Basic unit

### NA0PA-24T-□C

Power supply voltage: 100 to 240 V AC or 24 V DC  
DI/O: input 14 points, output 10 points  
Output type: Tr sink output  
Detachable terminal block

### NA0PB-24R-34C

Power supply voltage: 24 V DC  
DI/O: input 14 points, output 10 points  
Output type: Ry output

**40 points**  
Basic unit

### NA0PA-40T-□C

Power supply voltage: 100 to 240 V AC or 24 V DC  
DI/O: input 24 points, output 16 points  
Output type: Tr sink output  
Detachable terminal block

**32 points**  
Basic unit

### NA0PA-32T-□C

Power supply voltage: 100 to 240 V AC or 24 V DC  
DI/O: input 20 points, output 12 points  
Output type: Tr sink output  
Detachable terminal block

### NA0PB-32R-34C

Power supply voltage: 24 V DC  
DI/O: input 20 points, output 12 points  
Output type: Ry output

**60 points**  
Basic unit

### NA0PA-60T-□C

Power supply voltage: 100 to 240 V AC or 24 V DC  
DI/O: input 36 points, output 24 points  
Output type: Tr sink output  
Detachable terminal block

### NA0PB-60R-34C

Power supply voltage: 24 V DC  
DI/O: input 36 points, output 24 points  
Output type: Ry output

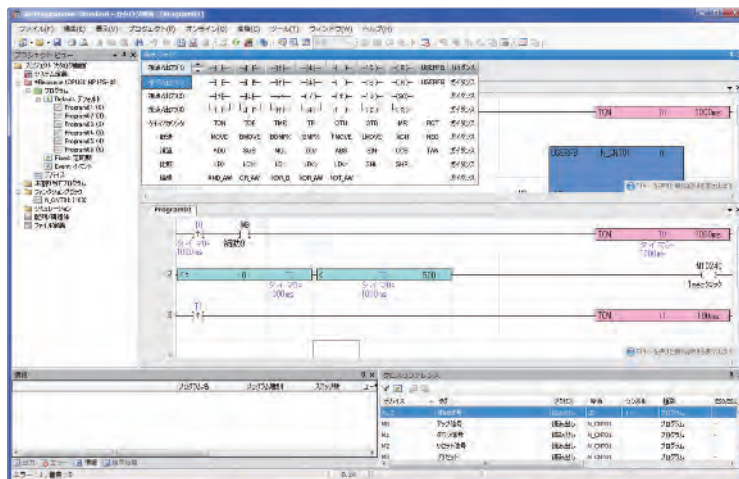


# PROGRAMMING ENVIRONMENT

## Improves Programming Development Efficiency

### Programming Support Tools: SX-Programmer Standard

#### Operability Oriented Support Tools



#### Usage

##### Ladder operation for on-site maintenance personnel

Supports the full keyboard operations useful for on-site maintenance personnel. Editing and download can be performed immediately after activation.

##### Utilization of programming resources

Program and comment resources of the models of MICREXF series and FLEX-PC series of Fuji Electric can be reused. Screens, operability, and programming can be handled as if you were using a personal computer loader with which you are already familiar.

## Features

### Multi-language support

- The SPF supports not only ladder diagrams but also ST and FBD.
- It allows the programmer to select the proper programming language for the control target.

### Intuitive screen operation

- Through guidance display and a command word candidate narrowing-down function based on a keyword search, you can input data without referring to the manual.
- You can select the proper input mode according to the situation from functions such as mouse wheel + click input, keyword search input, and Intellisense function input.

### Simulation function

- Provided with built-in Standard, the SPF is capable of testing the operation of programs without using an actual system.

### Resume function

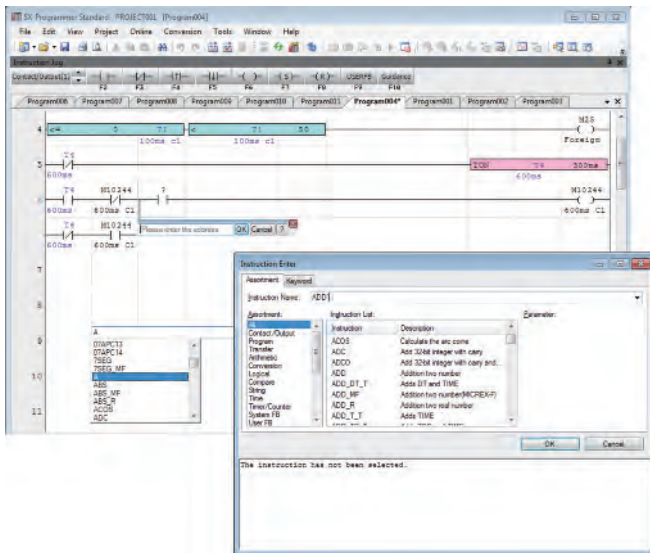
- When the SPF starts to run, it automatically displays the position last edited or monitored.
- In online mode, the SPF displays the position last monitored and starts monitoring.
- In offline mode, the SPF displays the position last monitored and enters Edit mode.

### Device editor and collation function

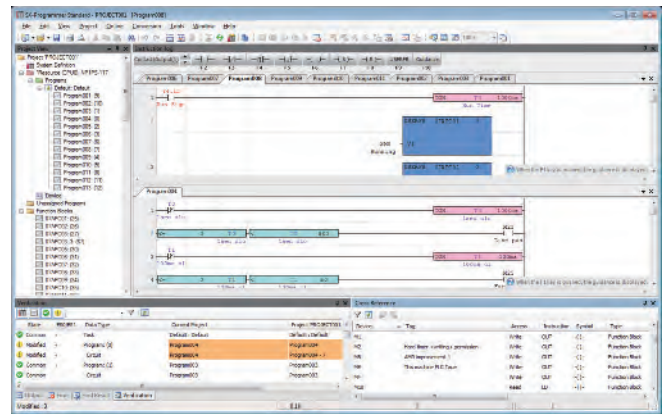
- Device information is displayed on a single screen, for example, in the form of a list of the operating states of devices, enabling you to save time in memory management.
- You can display details of different points on programs and edit by referring to collation results.

## Screen Sample

### ● Entering instruction



### ● Collation function



### ■ Operating environment

| Item                     | Specifications                                                                         |          |
|--------------------------|----------------------------------------------------------------------------------------|----------|
| Hardware                 | IBM-PC/AT compatible                                                                   |          |
| CPU                      | Intel Pentium 233 MHz or higher (800 MHz or higher recommended)                        |          |
| Hard disk                | Free space of 200 Mbytes or more                                                       |          |
| CD-ROM unit              | 1 unit (x 4 speed or faster), media: ISO 9660 format                                   |          |
| Memory capacity          | 64 Mbytes or more (128 Mbytes or more recommended)                                     |          |
| Keyboard                 | 101 English keyboard                                                                   |          |
| Mouse                    | USB mouse, bus mouse, or PS2 mouse                                                     |          |
| Indicator                | 800 x 600-dots resolution or higher (1024 x 768-dots resolution or higher recommended) |          |
| Communication interface  | Ethernet                                                                               | Possible |
|                          | USB                                                                                    | Possible |
| OS                       | Windows XP, Vista, 7, 8, 10                                                            |          |
| Environmental durability | Depends on environmental conditions of commercial personal computer.                   |          |

### ■ System configuration



USB ——— NAOH-CUV

Ethernet ———



+

or



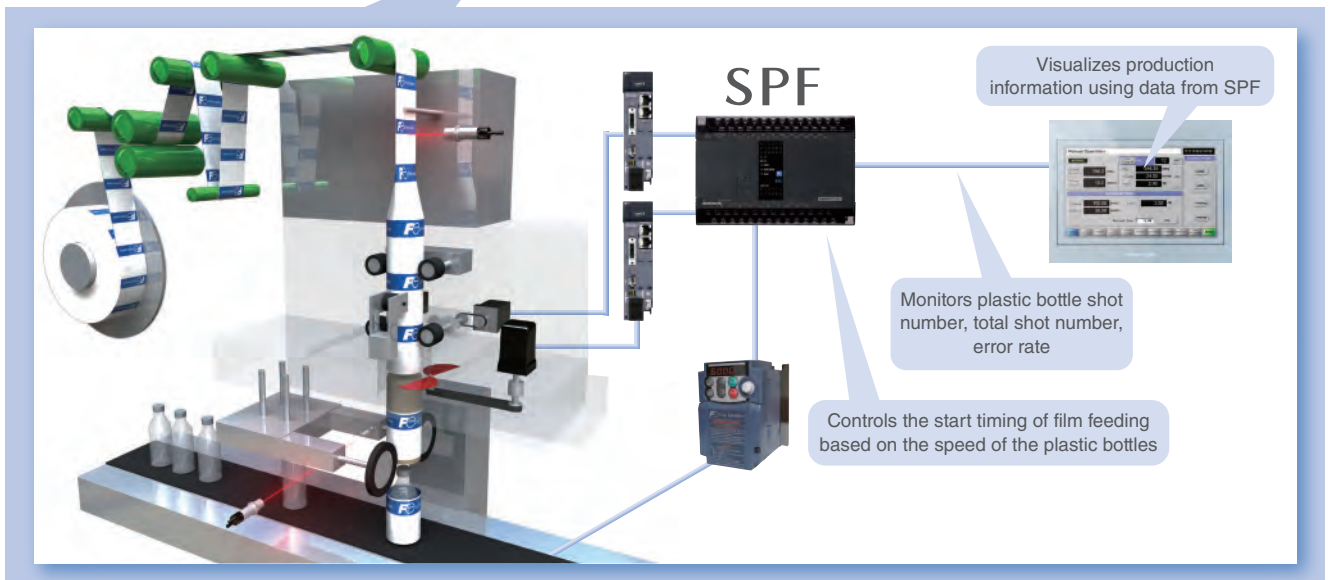
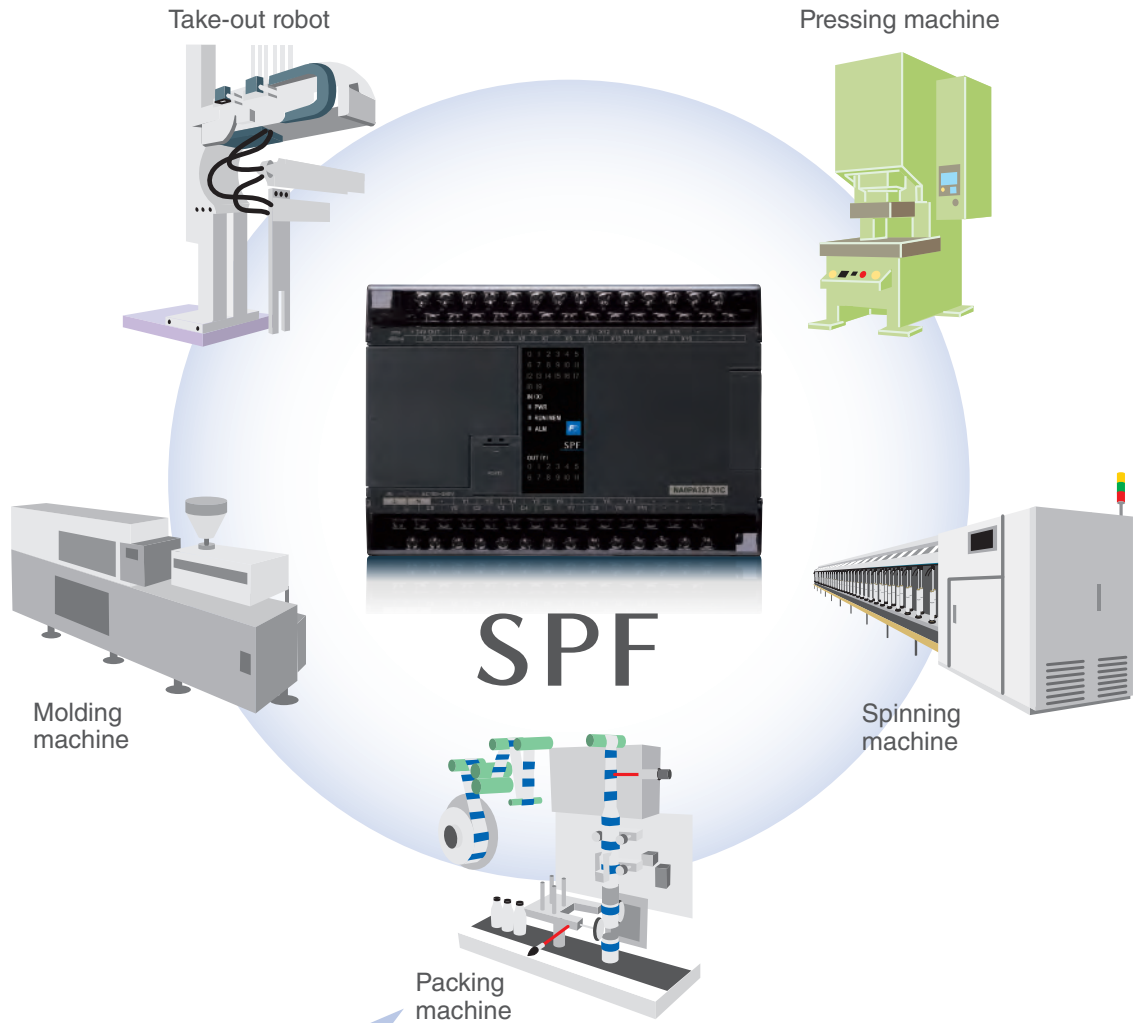
SPF

NAOLA-ET1

NA3LA-ET1

# APPLICATION EXAMPLES

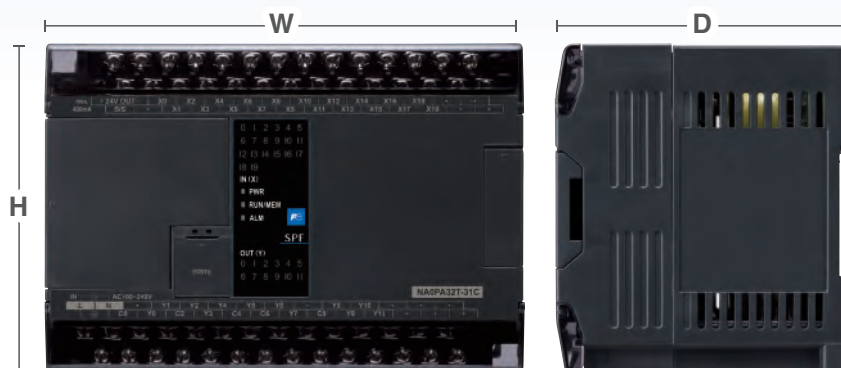
## Flexibly supports machinery and systems





## Outline drawing

|   |  | Unit: mm  |           |           |           |           |
|---|--|-----------|-----------|-----------|-----------|-----------|
|   |  | 14 points | 24 points | 32 points | 40 points | 60 points |
| W |  | 90        | 90        | 130       | 130       | 175       |
| H |  | 90        | 90        | 90        | 90        | 90        |
| D |  | 80        | 80        | 80        | 80        | 80        |



## General specifications

|                            | Item                                                          | Specifications                                                                                                                                                |
|----------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical environment       | Operating ambient temperature                                 | 0 to +55°C                                                                                                                                                    |
|                            | Storage (transportation) temperature                          | -20 to +70°C                                                                                                                                                  |
|                            | Relative humidity                                             | 20 to 95% RH, No condensation<br>(5 to 95% RH during transportation, No condensation)                                                                         |
|                            | Pollution degree                                              | Pollution degree 2 <sup>Note 1)</sup>                                                                                                                         |
|                            | Corrosion resistance                                          | No corrosive gas<br>No adhesion of organic solvents                                                                                                           |
|                            | Usage altitude                                                | Altitude of 2000 m or less<br>(Air pressure of 70 kPa or more during transportation)                                                                          |
| Mechanical resistance      | Vibration resistance                                          | One-way amplitude: 0.15 mm, constant acceleration: 19.6 m/s <sup>2</sup><br>2 hours in each direction, total of 6 hours <sup>Note 2)</sup> <sup>Note 3)</sup> |
|                            | Shock resistance                                              | Peak acceleration: 98 m/s <sup>2</sup> , 3 times in each direction                                                                                            |
| Electric working condition | Electrostatic discharge                                       | ±4 kV: Contact discharge method<br>±8 kV: Aerial discharge method                                                                                             |
|                            | Radiated radio                                                | 80 to 1000 MHz, 10 V/m                                                                                                                                        |
|                            | Frequency electromagnetic field                               | 1.4 to 2.0 GHz, 3 V/m; 2.0 to 2.7 GHz, 1 V/m                                                                                                                  |
|                            | EFT burst wave                                                | Power line, I/O signal line (AC non-shielded line): ±2 kV<br>Communication line, I/O signal line (excluding AC non-shielded line): ±1 kV                      |
|                            | Lightening surge                                              | AC power supply: Common mode ±2 kV, Normal mode ±1 kV<br>DC power supply: Common mode ±0.5 kV, Normal mode ±0.5 kV                                            |
|                            | Radio-frequency electromagnetic field conduction interference | 150 kHz to 80 MHz, 10 V                                                                                                                                       |
|                            | Power frequency magnetic field                                | 50 Hz, 30 A/m                                                                                                                                                 |
|                            | Square wave impulse noise                                     | ±1.5 kV, rise time 1 ns; pulse width 1 μs, 50 Hz                                                                                                              |
| Structure                  |                                                               | Open type equipment (panel built-in type)                                                                                                                     |
| Cooling system             |                                                               | Natural air cooling                                                                                                                                           |

Note 1) Pollution degree 2: Normally, this is the state in which non-conductive pollution occurs. However, there are circumstances stipulated in which condensation may produce a state of temporary conductivity.

Note 2) This is a mounted state in which the unit is fixed to the control panel with fixing screws. Make sure there is no vibration or shock during DIN rail mounting.

Note 3) Make sure to implement vibration countermeasures for environments in which there is repeated or continuous vibration.

## Power supply specifications

| Item                                         | NA0P□-31C<br>(AC power supply type)        | NA0P□-34C<br>(DC power supply type)         |
|----------------------------------------------|--------------------------------------------|---------------------------------------------|
| Rated voltage                                | 100 to 240 V AC                            | 24 V DC                                     |
| Voltage tolerance                            | 85 to 264 V AC                             | 20.4 to 28.8 V DC                           |
| Rated frequency                              | 50/60 Hz                                   | -                                           |
| Frequency tolerance                          | 47 to 63 Hz                                | -                                           |
| Time allowed for instantaneous power failure | 1 cycle or less                            | < 20 ms                                     |
| Waveform distortion rate                     | 5% or less                                 | -                                           |
| Wave ripple rate                             | -                                          | -                                           |
| Rated output voltage 1<br>(internal 5 V)     | 5 V DC ±5%                                 |                                             |
| Rated output voltage 2<br>(internal 24 V)    | 24 V DC ±10%                               |                                             |
| Rated output voltage 3<br>(service 24 V)     | 24 V DC ±10%                               |                                             |
| Leak current                                 | 0.25 mA or less                            | 0.25 mA or less                             |
| Inrush current                               | 40 A <sub>o-p</sub> or less, 10 ms or less | 150 A <sub>o-p</sub> or less, 10 ms or less |
| Dielectric strength                          | 2300 V <sub>rms</sub> AC, 1 minute         | 510 V <sub>rms</sub> AC, 1 minute           |
| Insulation type                              | Transformer insulation                     |                                             |
| Insulation resistance                        | 10 MΩ or more using 500 V DC megger        |                                             |

# SPECIFICATIONS

## Performance specifications

| Item                                                                   |  |                                      |          | Specifications: Basic unit                                                             |                               |
|------------------------------------------------------------------------|--|--------------------------------------|----------|----------------------------------------------------------------------------------------|-------------------------------|
|                                                                        |  |                                      |          | 14/24 points                                                                           | 32/40/60 points               |
| Control system                                                         |  |                                      |          | Stored program and cyclic scanning system<br>(default task), periodic task, event task |                               |
| I/O connection method                                                  |  |                                      |          | Direct I/O system: Local bus                                                           |                               |
| Direct I/O control method                                              |  | Overall                              |          | Scan batch refresh method                                                              |                               |
|                                                                        |  | Digital I/O                          |          | Task synchronization refresh method                                                    |                               |
| MPU                                                                    |  |                                      |          | 16-bit OS/Executing Processor (dual use)                                               |                               |
| Memory type                                                            |  |                                      |          | Program memory, data memory, temporary memory                                          |                               |
| Programming language <IEC61131-3 compliant>                            |  |                                      |          | LD language (Ladder Diagram)<br>ST language (Structured Text)                          |                               |
| Instruction word length                                                |  |                                      |          | Variable length (depending on the instruction) 1 step = 32-bit length                  |                               |
| Instruction execution time                                             |  |                                      |          | LD instruction 0.30 μs                                                                 |                               |
| Program memory capacity                                                |  |                                      |          | 8 k steps (1 step = 32 bits)                                                           | 20 k steps (1 step = 32 bits) |
| I/O memory (I/Q)                                                       |  | X, Y                                 | Fixed    | 512 words                                                                              |                               |
| System memory (SM)                                                     |  | SM                                   | Fixed    | 512 words                                                                              |                               |
| Data memory capacity                                                   |  |                                      |          | 20 k words                                                                             | 40 k words                    |
| High-speed standard memory (M)                                         |  | M                                    | Fixed    | 4 k words                                                                              |                               |
| Standard memory (M)                                                    |  | M                                    | Variable | 0 k word                                                                               | 4 k words                     |
| Retained memory (RM)                                                   |  | L                                    | Variable | 2 k words                                                                              | 4 k words                     |
| UserFB instance memory (FM)                                            |  | V, F                                 | Variable | 4 k words                                                                              | 8 k words                     |
| UserFB instance memory initial value setting area                      |  | -                                    | Variable | 4.5 k words                                                                            | 9 k words                     |
| SystemFB instance memory (SFM)                                         |  |                                      |          |                                                                                        |                               |
| Timer                                                                  |  | T                                    | Variable | 256 points (2 k words)                                                                 | 512 points (4 k words)        |
| Integrating timer                                                      |  | TR                                   | Variable | 0 point (0 k word)                                                                     | 0 point (0 k word)            |
| Counter                                                                |  | C                                    | Variable | 256 points (1 k words)                                                                 | 512 points (2 k words)        |
| Edge detection                                                         |  |                                      | Variable | 1024 points (2 k words)                                                                | 2048 points (4 k words)       |
| Other                                                                  |  |                                      | Variable | 0.5 k words                                                                            | 1 k words                     |
| FB instance information area<br>(number of instances usable in UserFB) |  |                                      |          | 1024 words<br>(256 info.)                                                              |                               |
| ZIP file area                                                          |  |                                      |          | 64 K bytes                                                                             |                               |
| Data type                                                              |  |                                      |          | 1-bit<br>16-bit<br>32-bit<br>Array<br>Structure                                        |                               |
| Number of tasks                                                        |  | Default task                         |          | 1                                                                                      |                               |
|                                                                        |  | Periodic task                        |          | 15                                                                                     |                               |
|                                                                        |  | Event task                           |          | (Total number of periodic and event tasks)                                             |                               |
| POU                                                                    |  | UserPG                               |          | 64 / default task<br>8 / Interrupt task                                                |                               |
|                                                                        |  | UserFB                               |          | 128                                                                                    |                               |
|                                                                        |  | UserFCT                              |          | 128                                                                                    |                               |
|                                                                        |  | Number of nested<br>UserFB/FCT calls |          | Total of 64 steps<br>(UserFB/FCT calls from PG are also included)                      |                               |
| Diagnostic function                                                    |  |                                      |          | Program check, watchdog timer, etc.                                                    |                               |
| Security function                                                      |  |                                      |          | Password                                                                               |                               |
| Calendar function                                                      |  |                                      |          | Supported                                                                              |                               |
| Backup                                                                 |  | Program memory                       |          | Flash memory                                                                           |                               |
|                                                                        |  | System definition                    |          | Flash memory                                                                           |                               |
|                                                                        |  | Zip file                             |          | Flash memory                                                                           |                               |
|                                                                        |  | Data memory                          |          | Battery: SRAM                                                                          |                               |
|                                                                        |  | Calendar                             |          | Battery: RTC                                                                           |                               |
| Memory pack                                                            |  | External: Detachable                 |          | Storage content: Program<br>: System definition<br>: ZIP file<br>: Data                |                               |

## Model List

| Product name                                             | Model               | Specifications                                                                    |                                                                                                                |
|----------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Basic unit</b>                                        |                     |                                                                                   |                                                                                                                |
| <b>High-functionality type: Basic unit &lt;NA0PA&gt;</b> | <b>NA0PA14T-34C</b> | 24 V DC DI 8 points; Tr DO 6 points; RS-232C port; 24 V DC power supply           |                                                                                                                |
|                                                          | <b>NA0PA24T-34C</b> | 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
|                                                          | <b>NA0PA32T-34C</b> | 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
|                                                          | <b>NA0PA40T-34C</b> | 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
|                                                          | <b>NA0PA60T-34C</b> | 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
|                                                          | <b>NA0PA24T-31C</b> | 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 100 to 240 V AC power supply |                                                                                                                |
|                                                          | <b>NA0PA32T-31C</b> | 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 100 to 240 V AC power supply |                                                                                                                |
|                                                          | <b>NA0PA40T-31C</b> | 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply |                                                                                                                |
| <b>Standard type: Basic unit &lt;NA0PB&gt;</b>           | <b>NA0PB14R-34C</b> | 24 V DC DI 8 points; Ry DO 6 points; RS-232C port; 24 V DC power supply           |                                                                                                                |
|                                                          | <b>NA0PB24R-34C</b> | 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
|                                                          | <b>NA0PB32R-34C</b> | 24 V DC DI 20 points; Ry DO 12 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
|                                                          | <b>NA0PB60R-34C</b> | 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply         |                                                                                                                |
| <b>Extension unit</b>                                    |                     |                                                                                   |                                                                                                                |
| <b>Power supply unit</b>                                 | <b>Right</b>        | <b>NA0S-2</b>                                                                     | 5 V DC, 24 V DC output; 100 to 240 V AC input power supply                                                     |
|                                                          |                     | <b>NA0S-4</b>                                                                     | 5 V DC, 24 V DC output; 24 V DC input power supply                                                             |
| <b>DIO unit</b>                                          | <b>Right</b>        | <b>NA0E24R-34</b>                                                                 | 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply                                                    |
|                                                          |                     | <b>NA0E24T-31</b>                                                                 | 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply                                            |
|                                                          |                     | <b>NA0E08R-3</b>                                                                  | 24 V DC DI 4 points; Ry DO 4 points                                                                            |
|                                                          |                     | <b>NA0E08T-3</b>                                                                  | * 24 V DC DI 4 points; Tr DO 4 points                                                                          |
|                                                          |                     | <b>NA0E08T-0</b>                                                                  | * Tr DO 8 points                                                                                               |
|                                                          |                     | <b>NA0E08X-3</b>                                                                  | 24 V DC DI 8 points                                                                                            |
|                                                          |                     | <b>NA0E16R-0</b>                                                                  | * Ry DO 16 points                                                                                              |
|                                                          |                     | <b>NA0E16T-0</b>                                                                  | Tr DO 16 points                                                                                                |
| <b>AIO unit</b>                                          | <b>Right</b>        | <b>NA0AY02-MR</b>                                                                 | Analog Output 2ch (-10~10V, 0~10V or -20~20mA, 0~20mA)                                                         |
|                                                          |                     | <b>NA0AW06-MR</b>                                                                 | Analog Input 4ch (-10~10V, 0~10V or -20~20mA, 0~20mA) + Analog Output 2ch (-10~10V, 0~10V or -20~20mA, 0~20mA) |
|                                                          |                     | <b>NA0AX06-MR</b>                                                                 | Analog Input 6ch (-10~10V, 0~10V or -20~20mA, 0~20mA)                                                          |
| <b>AIO board</b>                                         | <b>Front</b>        | <b>NA3AY02-MR</b>                                                                 | Analog Output 2ch (0~10V or 0~20mA)                                                                            |
|                                                          |                     | <b>NA3AW03-MR</b>                                                                 | Analog Input 2ch (0~10V or 0~20mA) + Analog Output 1ch (0~10V or 0~20mA)                                       |
| <b>Temperature measuring unit</b>                        | <b>Right</b>        | <b>NA0AX02-TC</b>                                                                 | * Thermocouple input 2ch, resolution 0.1°C                                                                     |
|                                                          |                     | <b>NA0AX06-TC</b>                                                                 | Thermocouple input 6ch, resolution 0.1°C                                                                       |
|                                                          |                     | <b>NA0AX16-TC</b>                                                                 | * Thermocouple input 16ch, resolution 0.1°C                                                                    |
|                                                          |                     | <b>NA0AX06-PT</b>                                                                 | * Resistance temperature sensor input 6ch, resolution 0.1°C                                                    |
| <b>AI + temperature measuring combo unit</b>             | <b>Right</b>        | <b>NA0AX06-MRTC</b>                                                               | * Input 2ch + thermocouple input 4ch                                                                           |
| <b>Load cell unit</b>                                    | <b>Right</b>        | <b>NA0F-LC1</b>                                                                   | 1ch, resolution 16 bits                                                                                        |
| <b>High-precision load cell unit</b>                     | <b>Left</b>         | <b>NA0FA-LC1</b>                                                                  | * 1ch, resolution 24 bits                                                                                      |
| <b>Communication unit</b>                                | <b>Left</b>         | <b>NA0LA-RS3</b>                                                                  | * 2 ports RS-232C (Port 3 + Port 4)                                                                            |
|                                                          |                     | <b>NA0LA-RS5</b>                                                                  | 2 ports RS-485 (Port 3 + Port 4)                                                                               |
|                                                          |                     | <b>NA0LA-ET1</b>                                                                  | * 1 port 10BASE-T/100BASE-TX Ethernet                                                                          |
| <b>Communication board</b>                               | <b>Front</b>        | <b>NA3LA-RS1</b>                                                                  | 1 port RS-232C (Port 1) + 1 port RS-485 (Port 2)                                                               |
|                                                          |                     | <b>NA3LA-ET1</b>                                                                  | 1 port 10BASE-T/100BASE-TX Ethernet                                                                            |
|                                                          |                     | <b>NA3LA-CA1</b>                                                                  | * 1 port CANopen                                                                                               |
| <b>Related equipment</b>                                 |                     |                                                                                   |                                                                                                                |
| <b>PC loader</b>                                         | <b>NP4H-SWN</b>     | Programming support tool Standard (Japanese/English)                              |                                                                                                                |
| <b>Loader connection cable</b>                           | <b>NA0H-CUV</b>     | USB (AM connector) /RS-232C (MD4M connector), 180 cm                              |                                                                                                                |
| <b>Memory pack</b>                                       | <b>NA8PMF-20</b>    | Program memory pack                                                               |                                                                                                                |
| <b>Terminal connector</b>                                | <b>NA8P-HE</b>      | Extension unit falling-off detection                                              |                                                                                                                |

\* Check for availability

## Safety Considerations

- For safe operation, before using the product read the instruction manual or user manual that comes with the product carefully or consult the Fuji sales representative from which you purchased the product.
- Products introduced in this catalogue have not been designed or manufactured for such applications in a system or equipment that will affect human bodies or lives.
- Customers, who want to use the products introduced in this catalogue for special systems or devices such as for atomic-energy control, aerospace use, medical use, passenger vehicle, and traffic control, are requested to consult the Fuji sales division.
- Customers are requested to prepare safety measures when they apply the products introduced in this catalogue to such systems or facilities that will affect human lives or cause severe damage to property if the products become faulty.
- For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

● Appearance and specifications are subject to change without prior notice for the purpose of product improvement.

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