

Fuji Integrated Controllers MICREX-SX Series Programmable Controller SPF

Achieving Cost Efficiency and High Performance Processing



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

Conforming to the IEC61131-3 programming standards



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.

Programming tools based on application needs

Two types of programming tools can be selected depending on applications. There are two types of programming tools: Expert, which is compliant with the international standard IEC 61131-3 for PLCs; and Standard, which mainly consists of ladder logic. 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 |
|-----------|------------|------------|
| Model | Program | Data |
| 14 points | 8 k stone | 20 k words |
| 24 points | 0 K Steps | 20 K WORUS |
| 32 points | | |
| 40 points | 20 k steps | 40 k words |
| 60 points | 20100000 | |

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.



MODEL LINEUP

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 NA0PA-24T-DC

Basic unit

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



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



40 points Basic unit

NA0PA-40T-DC

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



60 points

32 points

Basic unit

Basic unit

NA0PA-60T-DC

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

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

SYSTEM

Flexible system construction by using extension units



Constructing optimal systems using Fuji components

PROGRAMMING ENVIRONMENT

Improves Programming Development Efficiency

Two Types of Programming Support Tools in Accordance with Development Style

These are Windows-compatible programming support tools conforming to the IEC61131-3 International Standard.

SX-Programmer



Usage

Improvement of software development efficiency

Programming in units of POU or worksheets allows the use of the structured design method by which a program is created by dividing it by functionality or process. This method enables multiple designers to divide the program design among them so that a substantial reduction in the program creation time can be achieved.

Programming of the same techniques as those of microcomputers and personal computers

The ST language is similar to the C language so that programs can be created using the same techniques as those of microcomputers and personal computers for complex calculations that are hard to implement using the Ladder language. Programs and circuits that are frequently used can easily be reused by making them FB (function blocks).

Features

Writing in multiple languages

- •The Expert (D300win) completely supports five types of program representations specified by the standards.
- •It allows the programmer to code the proper combination of representations for the control target.

Supported representations

IL (Instruction List) LD (Ladder Diagram) FBD (Function Block Diagram) ST (Structured Text) SFC (Sequential Function Chart)

Excellent documentation function

•The documentation preparation function has been substantially improved. Not only can it print drawing numbers, dates, page, and drawing borders, but also company logos and comments.

Simulation function

•This tool enables program test runs using the simulation function built in Expert (D300win), without using the actual unit.

Function module support function/ POD cooperation function

- •The Expert (D300win) has implemented function module support and POD cooperation support functions as common support tools.
- •The function module support can be operated with the programming supporting tool connecting CPU module.

SPF

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 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 SPH 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 SPH is capable of testing the operation of programs without using an actual system.

Resume function

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

APPLICATION EXAMPLES

Flexibly supports machinery and systems



SPECIFICATIONS

SPF

Outline drawing

| | | | | Un | it: mm |
|---|--------------|--------------|--------------|--------------|--------------|
| | 14 points | 24 points | 32 points | 40 points | 60 points |
| W | 90 | 90 | 130 | 130 | 175 |
| Н | 90 | 90 | 90 | 90 | 90 |
| D | 80 | 80 | 80 | 80 | 80 |





General

specifications P

| | Item | Specifications | |
|----------------|---------------------------------------|---|-----|
| Physical | Operating ambient temperature | 0 to +55°C | |
| environment | Storage (transportation) temperature | -20 to +70°C | |
| | Relative humidity | 20 to 95% RH, No condensation | |
| | | (5 to 95% RH during transportation, No condensation) | |
| | Pollution degree | Pollution degree 2 Note 1) | |
| | Corrosion resistance | No corrosive gas | |
| | | No adhesion of organic solvents | |
| | Usage altitude | Altitude of 2000 m or less | |
| | | (Air pressure of 70 kPa or more during transportation) | |
| Mechanical | Vibration resistance | One-way amplitude: 0.15 mm, constant acceleration: 19.6 m/s ² | |
| resistance | | 2 hours in each direction, total of 6 hours Note 2) Note 3) | Not |
| | Shock resistance | Peak acceleration: 98 m/s ² , 3 times in each direction | |
| Electric | Electrostatic discharge | ±4 kV: Contact discharge method | |
| working | | ±8 kV: Aerial discharge method | |
| contaition | 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 | |
| | | Communication line, I/O signal line (excluding AC non-shielded line): ±1 kV | Not |
| | Lightening surge | AC power supply: Common mode ± 2 kV, Normal mode ± 1 kV | |
| | | DC power supply: Common mode ± 0.5 kV, Normal mode ± 0.5 kV | |
| | Radio-frequency electromagnetic field | 150 kHz to 80 MHz, 10 V | |
| | conduction interference | | |
| | Power frequency magnetic field | 50 Hz, 30 A/m | Not |
| | Square wave impulse noise | ± 1.5 kV, rise time 1 ns; pulse width 1 $\mu\text{s},$ 50 Hz | |
| Structure | | Open type equipment (panel built-in type) | _ |
| Cooling system | | Natural air cooling | |

te 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.

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

Power supply specifications

| lite us | NA0PD-31C | NA0PD-34C |
|--|--|--|
| | (AC power supply type) | (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 | | |
| (internal 5 V) | 5 V D(| 5 ±5 % |
| Rated output voltage 2 | | 2 . 10% |
| (internal 24 V) | 24 V D(| 5 ±10% |
| Rated output voltage 3 | | 2 . 10% |
| (service 24 V) | 24 V D(| 5 ±10% |
| Leak current | 0.25 mA or less | 0.25 mA or less |
| Inrush current | 40 Ao-p or less, 10 ms or less | 150 Ao-p or less, 10 ms or less |
| Dielectric strength | 2300 Vrms AC, 1 minute | 510 Vrms AC, 1 minute |
| | Between power input terminals and ground | Between power input terminals and ground |
| Insulation type | Transforme | er insulation |
| Insulation resistance | 10 MΩ or more usin | g 500 V DC megger |

SPECIFICATIONS

Performance specifications

| nem | | | | 14/24 points | 32/40/60 points |
|-----------------------|--|-----------|----------|-----------------------------------|-------------------------------------|
| Control overem | | | | Stored program and c | yclic scanning system |
| Control system | | | | (default task), perio | dic task, event task |
| I/O connection meth | od | | | Direct I/O syst | em: Local bus |
| Direct I/O control me | ethod | Overall | | Scan batch re | efresh method |
| | | Digital I | I/O | Task synchronizati | on refresh method |
| MPU | | | | 16-bit OS/Executing | Processor (dual use) |
| Memory type | | | | Program memory, data me | emory, temporary memory |
| Programming langua | age <iec61131-3 compliant=""></iec61131-3> | | | IL language (l | nstruction List) |
| | | | | ST language (S | Structured Text) |
| | | | | LD language (L | adder Diagram) |
| | | | | FBD language (Fund | ction Block Diagram) |
| | | | | SFC elements (Seque | ential Function Chart) |
| Instruction word len | gth | | | Variable length (depending on the | instruction) 1 step = 32-bit lengtl |
| Instruction executio | n time | | | LD instruct | ion 0.30 μs |
| Program memory ca | apacity | | | 8 k steps (1 step = 32 bits) | 20 k steps (1 step = 32 bits) |
| I/O memory (I/Q) | | %I, %Q | Fixed | 512 v | vords |
| System memory (SM | /) | %M 10 | Fixed | 512 v | vords |
| Data memory capac | ity | | | 20 k words | 40 k words |
| High-speed star | ndard memory (M) | %M 1 | Fixed | 4 k w | vords |
| Standard memo | ory (M) | %M 1 | Variable | 0 k word | 4 k words |
| Retained memo | ory (RM) | %M 3 | Variable | 2 k words | 4 k words |
| UserFB instanc | e memory (FM) | %M 5 | Variable | 4 k words | 8 k words |
| UserFB instance | e memory initial value setting area | - | Variable | 4.5 k words | 9 k words |
| SystemFB insta | ance memory (SFM) | | | | |
| | | %M 8 | Variable | 5.5 k words | 11 k words |
| Timer | | | Variable | 256 points (2 k words) | 512 points (4 k words) |
| Integrating | a timer | | Variable | 0 point (0 k word) | 0 point (0 k word) |
| Counter | | | Variable | 256 points (1 k words) | 512 points (2 k words) |
| Edge deter | ction | | Variable | 1024 points (2 k words) | 2048 points (4 k words) |
| Other | | | Variable | 0.5 k words | 1 k words |
| FB instance informa | tion area | | ranabio | 1024 | words |
| (number of instance | es usable in UserEB) | | | (256 | info.) |
| 7IP file area | | | | 64 K | hytes |
| Data type | | | | BEAL : B | |
| Data type | | | | INIT: Into | aar type |
| | | | | DINT: Double prov | |
| | | | | | d integer type |
| | | | | | |
| | | | | BOOL 1 bit l | e-precision integer type |
| | | | | WORD: 16 bit | bit string type |
| | | | | | t bit string type |
| | | | | DWORD: 32-bi | |
| | | | | | |
| | | | | TOD: T | ma tupo |
| | | | | TIME: Dur | ration type |
| | | | | Arroy d | |
| | | | | Array G | data type |
| Number of tasks | Default task | | | Structure | |
| Number of tasks | Deriadio took | | | | |
| | Event teck | | | (Total number of pari | o dia and avant taska) |
| POLL | | | | (Total number of pend | ault tack |
| 100 | User d | | | 04 / dei | aut task |
| | HearEB | | | 07 milen | 20 |
| | | | | 1/ | 28 |
| | Number of nested | | | Total of 6 | |
| | UserEB/ECT calls | | | (LeorEB/ECT calls from | PG are also included) |
| Diagnostic function | | | | Program check w | atchdog timer, etc |
| Security function | | | | Paga | word |
| Calendar function | | | | Pass | ortod |
| Backup | Program memory | | | Supp Electric | nemory |
| Buokup | System definition | | | | nemory |
| | Zin file | | | Fiash n | |
| | Data memory | | | Flash n | · CDAM |
| | Calendar | | | Battery | |
| Momonument | | | | Batter | y: nito |
| метногу раск | External: Detachable | | | Storage cont | enii: Program |
| | | | | | . System definition |
| | | | | | |
| | | | | | : Data |

Specifications: Basic unit

Model List

| Basic unit NA0PA14T-34C 24 V DC DI 8 points; Tr DO 6 points; RS-232C port; 24 V DC power supply High-functionality type: Basic unit <na0pa> 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA44T-34C 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 24 V DC power supply NA0PA32T-34C 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 24 V DC power supply NA0PA60T-34C 24 V DC DI 36 points; Tr DO 12 points; RS-232C port; 24 V DC power supply NA0PA40T-31C 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA32T-31C 24 V DC DI 24 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA40T-31C 24 V DC DI 24 points; Tr DO 12 points; RS-232C port; 100 to 240 V AC power supply NA0PA40T-31C 24 V DC DI 24 points; Tr DO 12 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 24 points; RS-232C port; 24 V DC power supply NA0PA60T-31C 24 V DC DI 36 points; RS -232C port; 24 V DC power supply NA0PB14R-34C 24 V DC DI 36 points; RS -232C port; 24 V DC power supply NA0PB14R-34C 24 V DC DI 14 points; RS -232C port; 24 V DC power supply NA0PB14R-34C 24 V DC DI 36 points; RS DO 10 points; RS-232C port; 24 V DC power supply</na0pa> |
|---|
| High-functionality type: Basic unit <naopa< th=""> NA0PA14T-34C 24 V DC DI 8 points; Tr DO 6 points; RS-232C port; 24 V DC power supply High-functionality type: Basic unit <naopa> 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 24 points; Tr DO 12 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 36 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 24 V DC power supply NA0PA24T-31C 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 100 to 240 V AC power supply NA0PA30T-31C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 14 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 14 points; RS DO 10 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 14 points; RD 010 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply</naopa></naopa<> |
| High-functionality type: Basic unit <na0pa> NA0PA24T-34C 24 V DC DI 14 points; Tr D0 10 points; RS-232C port; 24 V DC power supply NA0PA32T-34C 24 V DC DI 20 points; Tr D0 12 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 24 points; Tr D0 16 points; RS-232C port; 24 V DC power supply NA0PA60T-34C 24 V DC DI 24 points; Tr D0 16 points; RS-232C port; 24 V DC power supply NA0PA24T-31C 24 V DC DI 14 points; Tr D0 10 points; RS-232C port; 24 V DC power supply NA0PA32T-31C 24 V DC DI 24 points; Tr D0 10 points; RS-232C port; 100 to 240 V AC power supply NA0PA40T-31C 24 V DC DI 24 points; Tr D0 12 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 24 points; Tr D0 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr D0 24 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 36 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 14 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 36 points; RS D0 10 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 14 points; RS D0 10 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; RY D0 12 points; RS-2</na0pa> |
| High-functionality type: Basic unit <na0pa> NA0PA32T-34C 24 V DC DI 20 points; Tr D0 12 points; RS-232C port; 24 V DC power supply NA0PA40T-34C 24 V DC DI 24 points; Tr D0 16 points; RS-232C port; 24 V DC power supply NA0PA60T-34C 24 V DC DI 36 points; Tr D0 24 points; RS-232C port; 24 V DC power supply NA0PA24T-31C 24 V DC DI 14 points; Tr D0 10 points; RS-232C port; 24 V DC power supply NA0PA40T-31C 24 V DC DI 20 points; Tr D0 12 points; RS-232C port; 100 to 240 V AC power supply NA0PA40T-31C 24 V DC DI 24 points; Tr D0 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA40T-31C 24 V DC DI 24 points; Tr D0 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr D0 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr D0 24 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 14 points; Ry D0 6 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 14 points; Ry D0 10 points; RS-232C port; 24 V DC power supply NA0PB40R-34C 24 V DC DI 20 points; RY D0 12 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 20 points; Ry D0 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry D0 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C</na0pa> |
| High-functionality type: Basic unit <na0pa> NA0PA40T-34C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 24 V DC power supply NA0PA60T-34C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 24 V DC power supply NA0PA24T-31C 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 100 to 240 V AC power supply NA0PA32T-31C 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 100 to 240 V AC power supply NA0PA40T-31C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; RS-232C port; 100 to 240 V AC power supply NA0PB4HR-34C 24 V DC DI 36 points; RS-232C port; 24 V DC power supply NA0PB14R-34C 24 V DC DI 14 points; RS DO 10 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 14 points; RS DO 10 points; RS-232C port; 24 V DC power supply NA0PB80R-34C 24 V DC DI 14 points; RY DO 10 points; RS-232C port; 24 V DC power supply NA0PB80R-34C 24 V DC DI 14 points; RY DO 12 points; RS-232C port; 24 V DC power supply NA0PB80R-34C 24 V DC DI 14 points; RY DO 12 points; RS-232C port; 24 V DC power supply NA0PB80R-34C 24 V DC DI</na0pa> |
| High-functionality type: Basic unit <naopa> NAOPA60T-34C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 24 V DC power supply NAOPA24T-31C 24 V DC DI 14 points; Tr DO 10 points; RS-232C port; 100 to 240 V AC power supply NAOPA32T-31C 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 100 to 240 V AC power supply NAOPA40T-31C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NAOPA60T-31C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NAOPA60T-31C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 100 to 240 V AC power supply NAOPA60T-31C 24 V DC DI 36 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NAOPB40T-31C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 24 V DC power supply NAOPB24R-34C 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply NAOPB24R-34C 24 V DC DI 20 points; RY DO 10 points; RS-232C port; 24 V DC power supply NAOPB32R-34C 24 V DC DI 20 points; RY DO 12 points; RS-232C port; 24 V DC power supply NAOPB60R-34C 24 V DC DI 36 points; RY DO 24 points; RS-232C port; 24 V DC power supply NAOPB60R-34C 24 V DC DI 36 points; RY DO 24 points; RS-232C port; 24 V DC power supply NAOPB60R-34C 24 V DC DI 36 points; RY DO 24 points; RS-232C port; 24 V DC power supply NAOS</naopa> |
| Image: Provide the state of the state o |
| NA0PA32T-31C 24 V DC DI 20 points; Tr DO 12 points; RS-232C port; 100 to 240 V AC power supple to the points; RS-232C port; 100 to 240 V AC power supple to the points; RS-232C port; 100 to 240 V AC power supple to the points; RS-232C port; 100 to 240 V AC power supple to the points; RS-232C port; 100 to 240 V AC power supple to the points; RS-232C port; 100 to 240 V AC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the points; RS-232C port; 24 V DC power supple to the power supple to the points; RS-232C port; 24 V DC power supple to the power su |
| NA0PA40T-31C 24 V DC DI 24 points; Tr DO 16 points; RS-232C port; 100 to 240 V AC power supply NA0PA60T-31C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 100 to 240 V AC power supply Standard type: Basic unit <na0pb> NA0PB14R-34C 24 V DC DI 8 points; Ry DO 6 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply NA0PB32R-34C NA0PB32R-34C 24 V DC DI 20 points; RS DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; RS DO 24 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; RS DO 24 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; RS DO 24 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; RS DO 24 points; RS-232C port; 24 V DC power supply NA0F84 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24R-34 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply</na0pb> |
| NA0PA60T-31C 24 V DC DI 36 points; Tr DO 24 points; RS-232C port; 100 to 240 V AC power supply Standard type: Basic unit <na0pb> NA0PB14R-34C 24 V DC DI 8 points; Ry DO 6 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 14 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 20 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply Right NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply</na0pb> |
| Standard type: Basic unit <na0pb> NA0PB14R-34C 24 V DC DI 8 points; Ry DO 6 points; RS-232C port; 24 V DC power supply NA0PB24R-34C 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 14 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 20 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply Extension unit 8085-2 Power supply unit NA0S-2 S V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA05-4 5 V DC, 24 V DC output; 24 V DC power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply</na0pb> |
| Standard type: Basic unit <na0pb> NA0PB24R-34C 24 V DC DI 14 points; Ry DO 10 points; RS-232C port; 24 V DC power supply NA0PB32R-34C 24 V DC DI 20 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply Extension unit 8 Power supply unit Right NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply</na0pb> |
| NA0PB32R-34C 24 V DC DI 20 points; Ry DO 12 points; RS-232C port; 24 V DC power supply NA0PB60R-34C 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply Extension unit 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply Power supply unit Right NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| NA0PB60R-34C 24 V DC DI 36 points; Ry DO 24 points; RS-232C port; 24 V DC power supply Extension unit NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply Power supply unit NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| NA0S-2 5 V DC, 24 V DC output; 100 to 240 V AC input power supply NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| NA0S-4 5 V DC, 24 V DC output; 24 V DC input power supply NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| NA0E24R-34 24 V DC DI 14 points; Ry DO 10 points; 24 V DC power supply NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| NA0E24T-31 24 V DC DI 14 points; Tr DO 10 points; 100 to 240 V AC power supply |
| |
| NA0E08R-3 24 V DC DI 4 points; Ry DO 4 points |
| DIO unit NAOE08T-3 * 24 V DC DI 4 points; Tr DO 4 points |
| NAOE08T-0 * Tr DO 8 points |
| NAOE08X-3 24 V DC DI 8 points |
| NAOE16R-0 * Ry DO 16 points |
| NAOE16T-0 Ir DO 16 points |
| NA0AY02-MR Output 2ch |
| AIO unit Right NAUAWU6-MR Input 4ch + output 2ch |
| NAUAXU6-MIR Input 6ch |
| AlO board Front NA3AY02-MR Output 2ch |
| NASAWO3-MIR Input 2cm + Output 1cm |
| NAVAXVETC Thermocouple input 2ch, resolution 0.1 C |
| Temperature measuring unit Right NACAVO-TC Thermocouple input tech, resolution 0.1°C |
| NACAYOG-PT * Posistance tomporature sensor input fech resolution 0.1°C |
| Al + temperature measuring combo unit Picet NA0AX06-MRTC* Input 2ch + thermocouple input 4ch |
| Load cell unit Bight NA0F-I C1 Ich resolution 16 bits |
| High-precision load cell unit Left NA0FA-LC1 * 1ch, resolution 24 bits |
| NAOLA-RS3 * 2 ports BS-232C (Port 3 + Port 4) |
| Communication unit Left NA0LA-RS5 2 ports BS-485 (Port 3 + Port 4) |
| NAOLA-ETI * 1 port 10BASE-T/100BASE-TX Ethernet |
| NA3LA-RS1 1 port RS-232C (Port 1) + 1 port RS-485 (Port 2) |
| Communication board Front NA3LA-ET1 1 port 10BASE-T/100BASE-TX Ethernet |
| NA3LA-CA1 * 1 port CANopen |
| Related equipment |
| PO Locder Programming support tool Expert (D300win) Version 3 (Japanese/English) |
| NP4H-SWN Programming support tool Standard (Japanese/English) |
| Loader connection cable NA0H-CUV USB (AM connector) /RS-232C (MD4M connector), 180 cm |
| Memory pack NA8PMF-20 Program memory pack |
| Terminal connector NA8P-HE Extension unit falling-off detection |

* Under development

▲ 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.

Fuji Electric Co., Ltd.

Gate City Ohsaki, East Tower, 11-2, Osaki 1-chome, Shinagawa-ku, Tokyo 141-0032, Japan

Phone : +81-3-5435-7057 Fax : +81-3-5435-7420 URL : http://www.fujielectric.com/