

MICREX-SX Series SPH
MICREX-F size I/O Module Addition Announcement

Thank you very much for your continued patronage of Fuji programmable controller.

We hereby announce the addition of the new models of MICREX-F size I/O modules (for MICREX-SX series renewal tool) to the current lineup.

1. Added Model

Product name	Type (Ordering code)	Specification	Depth dimension
8-point digital input module	NP8SX-143ZC	I/O module equivalent to FTU143B (110V DC, 8DI) The bit order of the terminal block is changed by the switch.	Low profile
32-point digital output module	NP8Y-226ZC	I/O module equivalent to FTU226B (24V DC, 32DO source) The bit order of the terminal block is changed by the switch.	Standard size

2. Release Date

Order: Started on April 1, 2019

Standard delivery time: 1.5 months

3. Product Overview

- For replacement of the MICREX-F series (referred to as MF hereafter) with the MICREX-SX series (referred to as SX hereafter), we have added the new models of MF size I/O modules which are compatible with MF series I/O modules in the size.
- MF size I/O modules have a selection switch with the endian function that can logically change the bit order of the terminal block signal wiring.
The newly added models support only the suffix "ZC." "No suffix," the suffixes "ZBF" and "ZBS" are not supported.
- Since the size of the MF size I/O modules is the same as that of MF I/O modules, they also have the same electrical characteristics (such as input current, load current) as MF.
The existing MF terminal block can be used without any change. The wiring work and check are not necessary. You can easily replace the modules.
A terminal blocks is not included with the MF size I/O module (optional).
- The following MF size I/O modules have been newly added:
 - Low profile type 8-point input module (MF type: Equivalent to FTU143B)
 - 32-point output module (MF type: Equivalent to FTU226B)

(1) General specifications

Item		Specification
Physical environmental conditions	Operating ambient temperature	0 to 55°C
	Storage temperature	-25 to 70°C
	Relative humidity	20 to 95%RH (Transport condition: 5 to 95%RH, no condensation)
	Pollution degree	2, no condensation
	Corrosion immunity	Free from corrosive gases. Not stained with organic solvents.
	Operating altitude	2000m or less above sea level (Transport condition: 70kPa or more)
Mechanical service conditions	Vibration	5 ≤ f < 8.4Hz: Constant amplitude 3.5mm 8.4 ≤ f < 150Hz: Constant acceleration: 9.8m/s ²
	Shock	Acceleration peak: 147 m/s ² , Three times in each direction
Mechanical service conditions	Noise immunity	Noise voltage 1.5kVp-p, rise time 1ns, pulse width 1μs (noise simulator)
	Electrostatic discharge	Contact discharge: ±4kV, Aerial discharge: ±8kV
	Radiated, radio-frequency, electromagnetic field	10V/m(80 MHz to 1000MHz)
	EFT/B (Electrical fast transient/burst)	±2kV
	Conducted radio frequency	150kHz to 80MHz, 10V
	Power frequency magnetic field	50Hz, 30A/m
Construction	Panel-mounted type (open equipment)	
Cooling	Air cooling	

Note: For the other general specifications, see the catalogue of MICREX-SX series SPH (Document No. 22B2-J-0004).

(2) Supported version of programming support tool, SX-Programmer

To use MF size I/O modules, the following version is necessary.

- Loader version that supports NP8SX-143ZC
 - Expert (D300win) V3 (Type: NP4H-SEDBV3) : V3.6.13 or later
 - Standard (Type: NP4H-SWN) : V3.0.19 or later (Scheduled in April 2019)

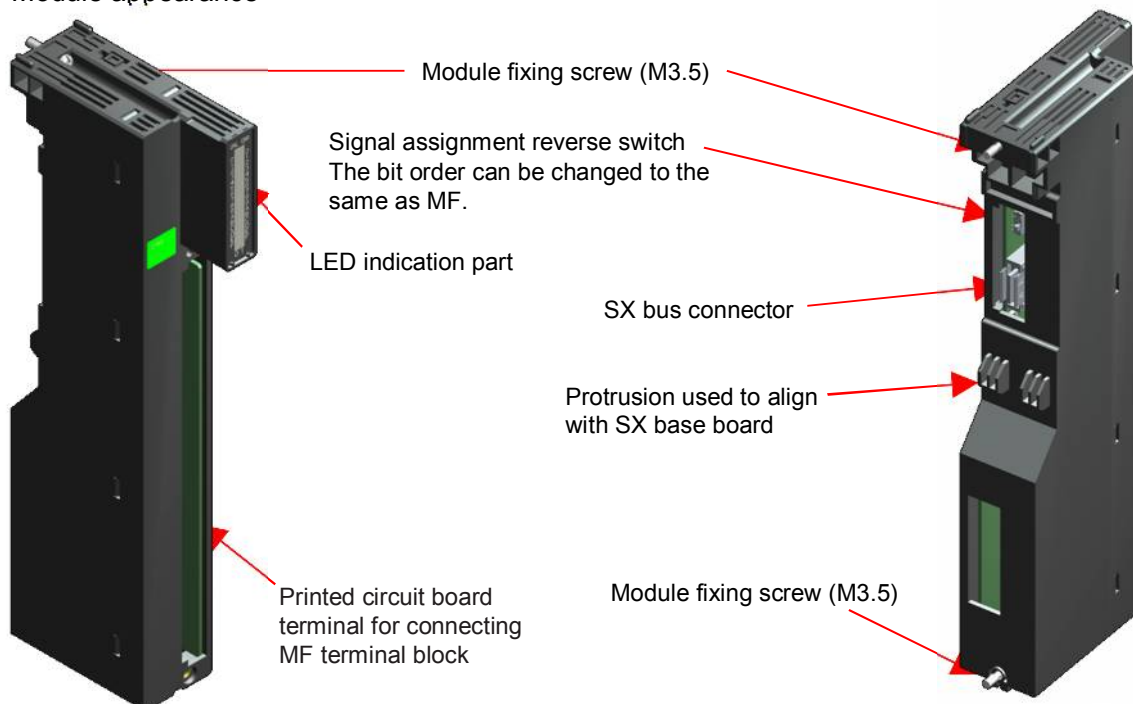
- Loader version that supports NP8Y-226ZC
 - Expert (D300win) V3 (Type: NP4H-SEDBV3) : V3.6.13 or later
 - Standard (Type: NP4H-SWN) : V3.0.18 or later

4. Low profile type 8-point input module (Type: NP8SX-143ZC)

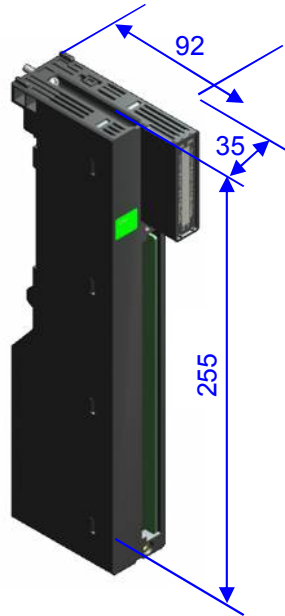
(1) Input specifications

Item		Specification	
Number of output points		8 points (8 points/common × 1 circuit)	
Input signal condition	Rated voltage (variation range)	110V DC	
	Max. allowable voltage	140V DC	
	Allowable ripple factor	5% or less	
Characteristics of input circuit	Input type	Source/sink shared type	
	Rated current	5mA/point	
	Input impedance	20kΩ	
	Operating voltage	OFF to ON	80–140V
		ON to OFF	0–22V
	Input delay time	OFF to ON	3 ±1.5 ms
		ON to OFF	3 ±1.5 ms
Input type	DC type 1		
Wire connection	External wire connections	Detachable screw terminal block (M3.5), 20 poles	
	Applicable wire size	0.5–0.75mm ²	
Input indication		LED turns on when input is ON. (Logic side) ONL: Normal (Green LED), ERR: Abnormal (Red LED)	
Isolation method		Photocoupler	
Dielectric strength		1500V AC for 1 minute between output terminals and frame ground	
Insulation resistance		10MΩ or more between input terminals and frame ground (with 500V DC megger)	
Derating condition		None	
External power supply		80–140V DC: For input signal	
Internal current consumption		24V DC, 70mA or less (when all points are turned ON)	
Number of occupied words		Directly connected to the SX bus: 2 words On the remote I/O link: 1 word	
Mass		Approx. 500g (excluding terminal block)	

(2) Module appearance

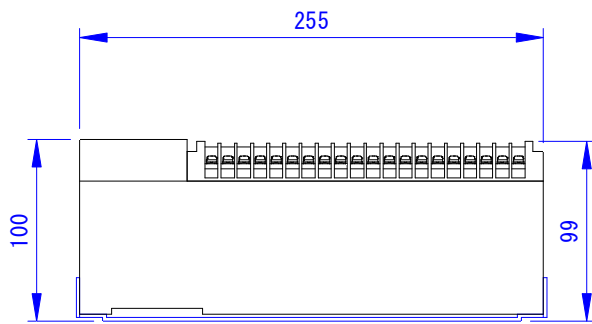


(3) External dimensions

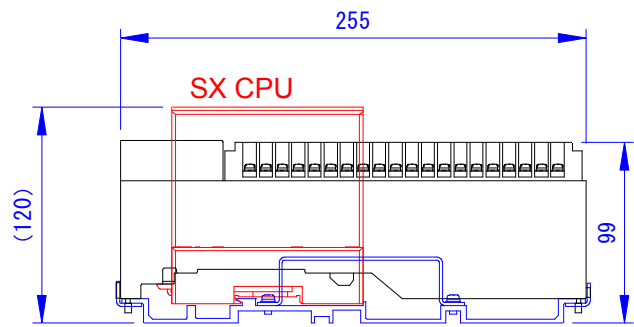


Unit [mm]
(Excluding protrusion)

FTU143B



NP8SX-143ZC

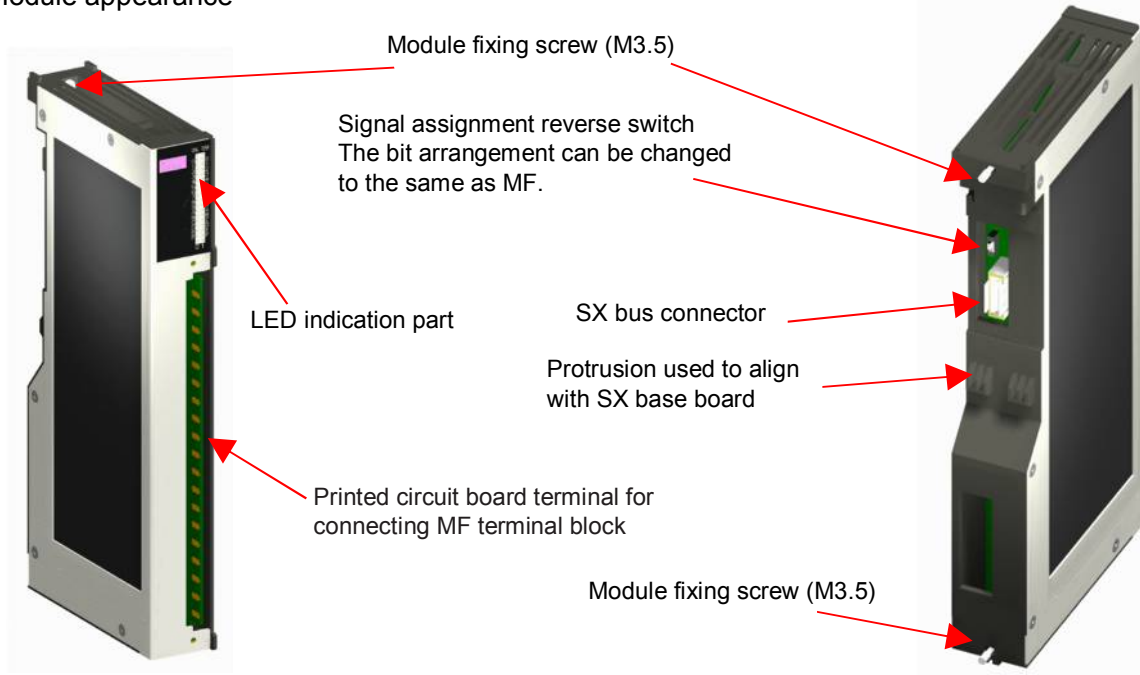


5. 32-point triac output module (Type: NP8Y-226C)

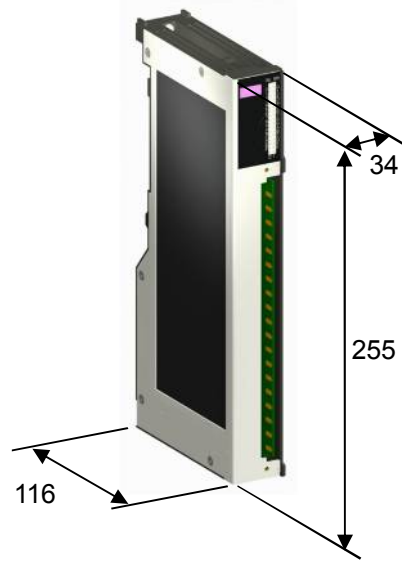
(1) Output specifications

Item		Specification	
Number of output points		32 points (16 points/common × 2 circuits,	
Output power supply condition	Rated voltage	(12)24–60V DC	
	Allowable voltage range	19–66V DC	
Characteristics of output circuit	Output type	Source output	
	Max. load current	0.2A/1 point (0.15A/1 point) 3.2A/16 points (2.4A/16 points)	
	Voltage drop	1V or less (at 0.2A)	
	Output delay time	OFF to ON	1ms or less
		ON to OFF	1ms or less
	Leakage current at OFF	0.1mA or less	
	Output type	Transistor output	
Surge current strength	0.6A 10ms		
Output protection method	Surge absorption circuit	Diode	
Wire connection	External wire connections	Detachable screw terminal block (M3.5), 38 poles	
	Applicable wire size	0.5–0.75mm ²	
Output indication	LED turns on when output is ON. (Logic side) ONL: normal (Green LED), ERR: abnormal (Red LED)		
Isolation method	Photocoupler		
Dielectric strength	1500V AC for 1 minute between output terminals and frame ground		
Insulation resistance	10MΩ or more between output terminals and frame ground (with 500V DC megger)		
Internal current consumption	24V DC 140mA or less (when all points are turned ON)		
Number of occupied words	Directly connected to the SX bus: 2 words On the remote I/O link : 2 words		
Mass	Approx. 540g (excluding terminal block)		

(2) Module appearance



(3) External dimensions



Unit [mm]
(Excluding protrusion)

FTU226B

NP8Y-226ZC

