NAiS

Analog Input Units for
FP2 Programmable Controllers

FP2-AD8X
(Isolated multiple input unit)

FP2-RTD
(Resistance thermometer device input unit)

FP2-AD8VI
(Voltage/current input unit)

High speed, high accuracy, and isolated channels (AD8X)

New analog input units also suited to temperature control

Three types are available to meet a wide variety of customer needs.

FP2-AD8X

AFP2401

- Thermocouples, RTDs, and voltages
- High speed, high accuracy
- Isolated channels

FP2-RTD

AFP2402

- RTDs
- High speed, high accuracy

FP2-AD8VI

AFP2400L

- Voltages and currents
- Economical price

Analog Input Units for FP2 Programmable Controllers
ARCT1E241E '04.9

New

High speed, high accuracy, multiple-input unit with isolated channels

FP2-AD8X
(AFP2401)

Industry's fastest

With a highly reliable isolation among channels,
Temperature conversion: 20 ms/ch
Voltage conversion: 5 ms/ch

Industry's top level

High accuracy conversion
Voltage: ±0.1% (25°C 77°F)
Temperature: ±0.3% (0 to 55°C 32 to 131°F)

Multiple inputs

Inputs of thermocouple, RTD, and voltage data*1 can be supported with a single unit.

- For users who require faster and more accurate temperature control
- For users who require multiple isolated input channels or who want to reduce the cost per channel
- For users who want to input temperature and voltage (current) data through a single unit

*1: Current inputs can be converted into voltage inputs by attaching the supplied external resistor to the input terminal section.

Input unit solely for RTDs (Pt100/Pt1000)

FP2-RTD
(AFP2402)

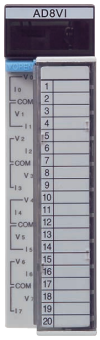
High speed High accuracy

Conversion speed: 20 ms/ch
Conversion accuracy:
±0.3% (0 to 55°C 32 to 131°F)

- For users who input RTD data only and require a more economical type

Economical price type solely for voltage/current data

FP2-AD8VI
(AFP2400L)



Low cost

Approx. 20% lower than FP2-AD8X

- Low cost unit for input of voltage/current data that indicates measurements of

■ Functions/Performance

		FP2-AD8X (AFP2401)	FP2-RTD (AFP2402)	FP2-AD8VI (AFP2400L)
Number of input channels		8ch	8ch	8ch
Input range (resolution)	Voltage	±10 V (1/65536)	–	±10 V (1/65536)
		1 V to 5 V (1/13107)	–	1 V to 5 V (1/13107)
		±100 mV (1/65536)	–	–
	Current	–*1	–	±20 mA (1/32768)
				4 mA to 20 mA (1/13107)
	Thermocouple	S: 0 to +1500°C (0.1°C)	–	–
		J: –200 to +750°C (0.1°C)		
		J: –100 to +400°C (0.1°C)		
		K: –200 to +1200°C (0.1°C)		
		K: –200 to +1000°C (0.1°C)		
		K: –100 to +600°C (0.1°C)		
		T: –200 to +350°C (0.1°C)		
		R: 0 to +1500°C (0.1°C)		
		N: –200 to +1300°C (0.1°C)		
	RTD	Pt 100: –200 to +650°C (0.1°C)		
		Pt 100: –100 to +200°C (0.1°C)		
		JPt 100: –200 to +650°C (0.1°C)		
		JPt 100: –100 to +200°C (0.1°C)		
		Pt1000: –100 to +100°C (0.1°C)		
Conversion speed	Voltage	500 µs/ch (not isolated), 5 ms (isolated)	–	500 µs/ch
	Current	–	–	500 µs/ch
	Thermocouple	20 ms/ch	–	–
	RTD	20 ms/ch	20 ms/ch	
Overall accuracy		Voltage: ±0.1% F.S. (25°C 77°F), Voltage, Temperature: ±0.3% F.S. (0 to 55°C 32 to 131°F)	±0.3% F.S. (0 to 55°C 32 to 131°F)	±1.0% F.S. (0 to 55°C 32 to 131°F)
Isolation method		Between the input terminal and FP2 internal circuits: Photocoupler and DC/DC converter		Between the input terminal and FP2 internal circuits: Photocoupler
		Between channels: PhotoMOS relay	–	–
Digital output	Averaging	Selectable from 3 to 64 times for each channel (Moving average without the maximum and minimum values)		
	Offset setting	K: Selectable from –2048 to +2047 for each channel		
Broken wire detection		Each channel (only when a thermocouple or RTD is inputted)	Each channel	–
Input range switching		Batch switching of all channels: By the range setting switch		
		Each channel: By shared memory setting		

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