

Analog Input Specifications (2)

Model	FC4A-J4CN1, FC4A-J8C1		FC4A-J4CN1	FC4A-J8AT1		
Input Signal Type	Voltage Input	Current Input	Thermocouple	Resistance Thermometer	NTC Thermistor PTC Thermistor	
Input Range	0 to 10V DC	4 to 20 mA	Type K (0 to 1,300°C) Type J (0 to 1,200°C) Type T (0 to 400°C)	Pt100, Pt1000 3-wire type (-100 to 500°C) Ni100, Ni1000 3-wire type (-60 to 180°C)	-50 to 150°C	
Input Impedance	1 MΩ	7 Ω (FC4A-J4CN1) 100Ω (FC4A-J8C1)	1 MΩ	—	—	
Input Detection Current	—	—	—	0.1 mA	0.1 mA	
AD Conversion	Sampling Duration Time	2 ms maximum				
	Sampling Repetition Time	FC4A-J4CN1: 10 ms maximum	30 ms maximum	10 ms maximum	2 ms × channels	
		FC4A-J8C1: 2 ms maximum				
	Total Input System Transfer Time	FC4A-J4CN1: 50 ms × channels + 1 scan time FC4A-J8C1: 8 ms × channels + 1 scan time	85 ms × channels + 1 scan time	50 ms × channels + 1 scan time	10 ms × channels + 1 scan time	
	Type of Input	Single-ended input				
	Operating Mode	Self-scan				
	Conversion Method	Σ Δ type ADC (FC4A-J4CN1), Successive approximation register method (FC4A-J8C1, FC4A-J8AT1)				
Input Error	Maximum Error at 25°C	±0.2% of full scale	±0.2% of full scale + cold junction compensation error (±3°C maximum)	Pt100, Ni100: ±0.4% of full scale Pt1000, Ni1000: ±0.2% of full scale	±0.2% of full scale	
	Cold Junction Compensation Error	—	±3°C maximum	—	—	
	Temperature Coefficient	±0.005% of full scale/°C				
	Repeatability after Stabilization Time	±0.5% of full scale				
	Non-linearity	±0.04% of full scale			Non-linear	
	Maximum Error	±1% of full scale				
Data	Digital Resolution	50,000 increments (16 bits)	Type K: Approx. 24,000 increments (15 bits) Type J: Approx. 33,000 increments (15 bits) Type T: Approx. 10,000 increments (14 bits)	Pt100: Approx. 6,400 increments (13 bits) Pt1000: Approx. 64,000 increments (16 bits) Ni100: Approx. 4,700 increments (13 bits) Ni1000: Approx. 47,000 increments (16 bits)	Approx. 4,000 increments (12 bits)	
	Input Value of LSB	0.2 mV	0.32 μA	Type K: 0.058°C Type J: 0.038°C Type T: 0.042°C	Pt100: 0.086°C Pt1000: 0.0086°C Ni100: 0.037°C Ni1000: 0.0037°C	0.05°C
	Data Type in Application Program	Default: 0 to 50,000 Optional: -32,768 to 32,767 (selectable for each channel) ¹			Default: 0 to 4,000 Optional: -32,768 to 32,767 (selectable for each channel) ¹ Resistance: 0 to 10,000 Temperature: °C, °F	—
	Monotonicity	Yes				
	Input Data Out of Range	Detectable ²				

 1: The data processed in the analog I/O module can be linear-converted to a value between -32,768 and 32,767. The optional range designation, and analog I/O data minimum and maximum values can be selected using data registers allocated to analog I/O modules.

Analog Input Specifications (2) con't on next page.

OI Touchscreens

PLCs

Automation Software

Power Supplies

Sensors

Communication

Barriers