

Temperature Input Modules

Model Number		FX5-4AD-PT-ADP	FX5-4AD-TC-ADP	FX5-4LC
Stocked Item		S	S	S
Certification		UL • cUL • CE		
Applicable PLCs		FX5U/FX5UC/FX5UJ/FX5S		FX5U/FX5UC/FX5UJ
Analog Input Points		4 points		
Resistance Temperature Detector/Thermocouples		Pt100 /Ni100	K, J, T, B, R, S	Thermocouple: K, J, R, S, E, T, B, N JIS C 1602-1995, PL II, W5Re/W26Re, U, L Resistance thermometer: 3-wire Pt100 JIS C 1604-1997 3-wire JPt100 JIS C 1604-1981 2-wire/3-wire Pt1000 JIS C 1604-2013
Temperature Measuring Range		Pt100: -200 to +850°C Ni100: -60 to +250°C	K: -200 to +1200°C J: -40 to +750°C T: -200 to +350°C B: 600 to 1700°C R: 0 to 1600°C S: 0 to 1600°C	K: -200 to +1300°C (-100 to +2400°F) J: -200 to +1200°C (-100 to +2100°F) T: -200 to +400°C (-300 to +700°F) S: 0 to 1700°C (0 to 3200°F) R: 0 to 1700°C (0 to 3200°F) E: -200 to +1000°C (0 to 1800°F) B: 0 to 1800°C (0 to 3000°F) N: 0 to 1300°C (0 to 2300°F) PL II: 0 to 1200°C (0 to 2300°F) W5Re/W26Re: 0 to 2300°C (0 to 3000°F) U: -200 to +600°C (-300 to +700°F) L: 0 to 900°C (0 to 1600°F) Micro voltage input: DC0 to 10mV, DC0 to 100mV Pt100 (3-wire type): -200 to +600°C (-300 to +1100°F) JPt100 (3-wire type): -200 to +500°C (-300 to +900°F) Pt1000 (2-wire type/3-wire type): -200.0 to +650.0°C (-328 to +1184°F)
Digital Output		Pt100: -2000 to +8500 Ni100: -600 to +2500	K: -2000 to +12000 J: -400 to +7500 T: -2000 to +3500 B: 6000 to 17000 R: 0 to 16000 S: 0 to 16000	4 transistor outputs
Accuracy	25±5°C	Pt100: ±0.8°C Ni100: ±0.4°C	Varies according to thermocouple used. Please refer to the manual	
	-20 to 55°C	Pt100: ±2.4°C Ni100: ±1.2°C		
Resolution		0.1°C(0.2°F)	K/J/T: 0.1°C B/R/S: 0.3°C	0.1°C (0.1°F), 1.0°C (1.0°F), 0.5 μV, or 5.0 μV Varies depending on input range of used sensors
Conversion Speed		85 ms/channel		250 ms/4ch
Isolation Method		Between input terminal and CPU module: Photocoupler Between input channels: Non-isolation		The photocoupler is used to insulate the analog input area and transistor output area from the PLC. The DC/DC converter is used to insulate the power supply from the analog input area and transistor output area. Channels are insulated from each other.
Number of Occupied I/O Points		0		8
Dimensions (H x W x D) mm		106 x 17.6 x 89.1		90 x 60 x 102.2
Weight (kg)		0.1		0.3

Counter, Positioning, and Motion Modules

Motion Modules and Simple Motion Modules

Please refer to the Motion Controller section in this guide.

2-Axis Positioning Modules

Model Number		FX5-20PG-P	FX5-20PG-D
Stock		S	S
Certification		UL • cUL • CE	
Applicable CPU		FX5U/FX5UC/FX5UJ	
Number of Control Axes		2 axes	
Pulse Output Form		Transistor	Differential
Interpolation Function		2-axis linear interpolation, 2-axis circular interpolation	
Control Method		PTP (Point To Point) control, path control (line and arc), speed control, speed-position switching control, position-speed switching control	
Control Unit		mm, inch, degree, pulse	
Positioning Data		600 data/axis	
Maximum Connection Distance Between Servos		2 m	10 m
Number of Write Access to Flash ROM		100000 times maximum	
Number of Occupied I/O Points		8 points	
Power Supply Voltage		24 VDC +20%, -15%	
Current Consumption		120mA	165mA
Weight (kg)		0.2	
Dimensions (W x H x D) mm		50 x 90 x 83	

High-speed Counter Module

Model Number	FX5-2HC/ES
Stocked Item	S
Certification	UL • cUL • CE
Applicable CPU	FX5U/FX5UC/FX5UJ
Number of Channels	2 channels
Maximum Input Frequency	2MHz
Input Form	Differential line driver
Output	2 points/channel
Output Type	Transistor (sink)
Number of Occupied I/O Points	8
Weight (kg)	0.2
Dimensions (W x H x D) mm	40 x 90 x 96.7

Communications and Networking Expansion

Serial Communication Expansion Boards

These communication expansion boards mount on the front of the CPU modules and allow communication with external devices and other CPU modules over serial networks including Modbus.

Model Number	FX5-232-BD	FX5-485-BD	FX5-422-BD-GOT
Stocked Item	S	S	S
Certification	CE		
Applicable PLCs	FX5U/FX5UJ/FX5S		
Rated Voltage	5 VDC	5 VDC	5 VDC
Current Consumption	20 mA	20 mA	20 mA/5 VDC
Transmission Standard	RS-232C	RS-485/RS-422	RS-422
Max. Distance	15 m (49' 2")	50 m (164')	According to the specification of the GOT
Connection Method	9-pin D-sub, male	European terminal block	8-pin MINI-DIN, female
Terminal Resistor	-	Built-in (OPEN / 110Ω / 330Ω)	-
Insulation	Not insulated		
Communication Method	Half-duplex/Full-duplex		Half-duplex
Baud Rate	300/600/1200/2400/4800/9600/19200/38400/57600/115200 (bps)		9600/19200/38400/57600/115200 (bps)
Weight (kg)	0.02	0.02	0.02
Dimensions (W x H x D) mm	38 x 51.4 x 18.2	38 x 51.4 x 30.5	38 x 51.4 x 15.4

Serial Communication Expansion Adapters

These expansion adapters mount to the left side of the FX5 CPU modules and provide a wide range of serial communication standards including Modbus.

Model Number	FX5-232ADP	FX5-485ADP
Stocked Item	S	S
Certification	UL • cUL • CE	
Applicable PLCs	FX5U/FX5UC/FX5UJ/FX5S	
Rated Voltage	5 VDC; 24 VDC	
Current Consumption	30 mA / 5 VDC 30 mA / 24 VDC	20 mA / 5 V DC 30 mA / 24 VDC
Transmission Standard	RS-232C	RS-485/RS-422
Max. Distance	15 m (49' 2")	1200 m (3937')
Connection Method	9-pin D-sub, male	European terminal block
Terminal Resistor	-	Built-in (OPEN/110Ω / 330Ω)
Insulation	Photocoupler isolation	Photocoupler isolation
Communication Method	Half-duplex/Full-duplex	Half-duplex/Full-duplex
Baud Rate	300/600/1200/2400/4800/9600/19200/38400 57600/115200 (bps)	300/600/1200/2400/4800/9600/19200/38400 57600/115200 (bps)
Weight (kg)	0.08	0.08
Dimensions (W x H x D) mm	17.6 x 106 x 82.8	17.6 x 106 x 89.1