

Analog Voltage Input Modules

F2-04AD-2 4-Channel Voltage Analog In	
This module requires a 24 VDC user power supply for operation. See the F2-04AD-2L on the next page if you want to use a 12 VDC supply. All other specifications are the same.	
Number of Channels	4, single ended (1 common)
Input Ranges	0 to 5V, 0 to 10 V, $\pm 5V$, $\pm 10 V$
Resolution	12 bit (1 in 4096)
Active Low-pass Filtering	-3 dB at 80 Hz, 2 poles (-12 dB per octave)
Input Impedance	>20 M Ω
Absolute Maximum Ratings	-75 to +75 VDC
Converter Type	Successive approximation
Conversion Time (PLC Update Rate)	1 channel per scan maximum (D2-230 CPU) 4 channels per scan maximum (D2-240, D2-250(-1) and D2-260 CPUs)
Linearity Error (End to End)	± 1 count (0.025% of full scale) maximum ± 2 counts maximum (bi-polar)
Input Stability	± 1 count
Full Scale Calibration Error (offset error not included)	± 3 counts maximum
Offset Calibration Error	± 1 count maximum (0V input)
Step Response	10 ms to 95% of F.S change

Maximum Inaccuracy	$\pm 1\%$ @ 77°F (25°C) $\pm 3\%$ 32° to 140°F (0° to 60°C)
Accuracy vs. Temperature	± 50 ppm/°C full scale calibration change (including maximum offset change)
Digital Input Points Required	16(x) input points (12 binary data bits, 2 channel ID bits)
Base Power Required 5VDC	60 mA
External Power Supply	90 mA maximum, +18 to +30 VDC
Operating Temperature	32° to 140°F (0 to 60°C)
Storage Temperature	-4° to 158°F (-20° to 70°C)
Relative Humidity	5 to 95% (non-condensing)
Environmental Air	No corrosive gases permitted
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3-304
Terminal Type (included)	Removable; D2-8IOCON

One count in the specification table is equal to one least significant bit of the analog data value (1 in 4096).

Note 1: Shields should be grounded at the signal source.

