

Analog Voltage Input Modules

F2-08AD-2 8-Channel Voltage Analog In	
Number of Channels	8, single ended (1 common)
Input Ranges	0 to 5V, 0 to 10 V, $\pm 5V$, ± 10 VDC
Resolution	12 bit (1 in 4095) uni-polar 13 bit (-4095 to 4095) bi-polar
Active Low-pass Filtering	-3dB at 200 Hz, (-6dB 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) 8 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
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	4ms 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 maximum full scale (including max. offset change of 2 counts)
Digital Input Points Required	16 (X) input points, (12 binary data bits, 3 channel ID bits, 1 sign bit, 1 diagnostic bit)
Base Power Required 5VDC	60 mA
External Power Supply	80 mA maximum, +18 to +26.4 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). Includes circuitry to automatically detect broken or open transmitters.

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

Note 2: Connect all external power supply commons.

Note 3: Connect unused channels (CH5+, CH6+, CH7+, CH8+ in this example) to 0VDC.

