

ANALOG VOLTAGE INPUT MODULES

F2-04AD-2L 4-Ch. Voltage Analog In

This module requires a 12VDC user power supply for operation. See the F2-04AD-2 if you want to use a 24VDC supply. All other specifications are the same.

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| Number of Channels | 4, single ended (1 common) |
| Input Ranges | 0 to 5V, 0 to 10V, $\pm 5V$, $\pm 10V$ |
| Resolution | 12 bit (1 in 4096) |
| Active Low-pass Filtering | -3dB at 80Hz, 2 poles (-12 dB per octave) |
| Input Impedance | >20M Ω |
| Absolute Maximum Ratings | -75 to +75VDC |
| 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 | 10ms to 95% of F.S change |

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| 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 of 2 counts) |
| Digital Input Points Required | 16 (X) input points 12 binary data bits, 3 channel ID bits |
| Base Power Required 5VDC | 60mA |
| External Power Supply | 90mA maximum, +10 to +15 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 |

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.

