Analog Voltage Output Modules

F2-02DA-2L 2-Channel Voltage Analog Output

This module requires a 12 VDC user power supply for operation. See the F2-02DA-2 on the previous page if you want to use a 24 VDC supply. All other specifications are the same.

Number of Channels	2
Output Ranges	0 to 5V, 0 to 10 V, ±5V, ±10 V
Resolution	12 bit (1 in 4096)
Output Type	Single ended, 1 common
Digital Output Points Required	16 (Y) output points (12 binary data bits, 2 channel ID bits)
Peak Output Voltage	15 VDC (clamped by transient voltage suppressor)
Load Impedance	2000 Ω minimum
Load Capacitance	.01 µF maximum
PLC Update Rate	1 channel per scan maximum (D2-230 CPU) 2 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
Conversion Settling Time	5 µs maximum (full scale change)
Full Scale Calibration Error (offset error included)	±12 counts max. unipolar @ 77ºF (25ºC) ±16 counts max. bipolar @ 77ºF (25ºC)
Offset Calibration Error	±3 counts max., unipolar @ 77ºF (25ºC) ±8 counts max., bipolar @ 77ºF (25ºC)

Accuracy vs. Temperature	±50 ppm/ºC full scale calibration change (including maximum offset change of 2 counts)
Maximum Inaccuracy	+0.3% unipolar ranges @ 77ºF (25ºC) ±0.45% unipolar ranges >77ºF (25ºC) ±0.4% bipolar ranges @77ºF (25ºC) ±0.55% bipolar ranges >77ºF (25ºC)
Base Power Required 5VDC	40 mA
External Power Supply	10 to 15 VDC, 70 mA (outputs fully loaded)
Operating Temperature	32º to 140ºF (0º to 60ºC)
Storage Temperature	-4º to 158ºF (-20º to 70ºC)
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 connected to the 0V of the module or the 0V of the P/S.
NOTE 2: Unused voltage outputs should remain open (no connections) for minimum power consumption.