

Analog Output Modules

F4-04DA-2 4-Channel Analog Voltage Output <---->	
Number of Channels	4, single ended (one common)
Output Ranges	0-5V, 0-10V, $\pm 5V$, $\pm 10V$
Channels Individually Configurable	Yes
Resolution	12 bit (1 to 4,095)
Load Impedance	2K Ω minimum
Load Capacitance	0.01 μF maximum
Voltage Output Current	5.0mA sink or source
Short-circuit Current	15mA typical
Linearity Error (End to End) and Relative Accuracy	± 1 count ($\pm 0.025\%$) maximum
Offset Calibration Error	± 3 counts maximum, unipolar ± 4 counts maximum, bipolar
Full Scale Calibration Error	± 8 counts maximum (offset error included)
Maximum Inaccuracy	$\pm 0.2\%$ @ 77° F (25° C) $\pm 0.4\%$ @ 32 to 140° F (0 to 60° C)

Conversion Time	5 μs maximum, settling time 2.0ms maximum, digital out to analog out
Digital Output Points Required	16 (Y) output points (12 bits binary data, 4 active channel bits or 2 active channel bits and 1 sign bit for bipolar)
Base Power Required 5V	90 mA
Terminal Type (included)	Removable (D4-16IOCON)
External Power Supply	21.6-26.4VDC, 90mA, class 2 (outputs fully loaded)
Accuracy vs. Temperature	± 57 ppm/ $^{\circ}C$ full scale calibration change (including maximum offset change, 2 counts)
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 connected to the 0V of the module or the 0V of the P/S
NOTE 2: Unused voltage outputs should remain open (no connections)

