

Analog Voltage Output Modules

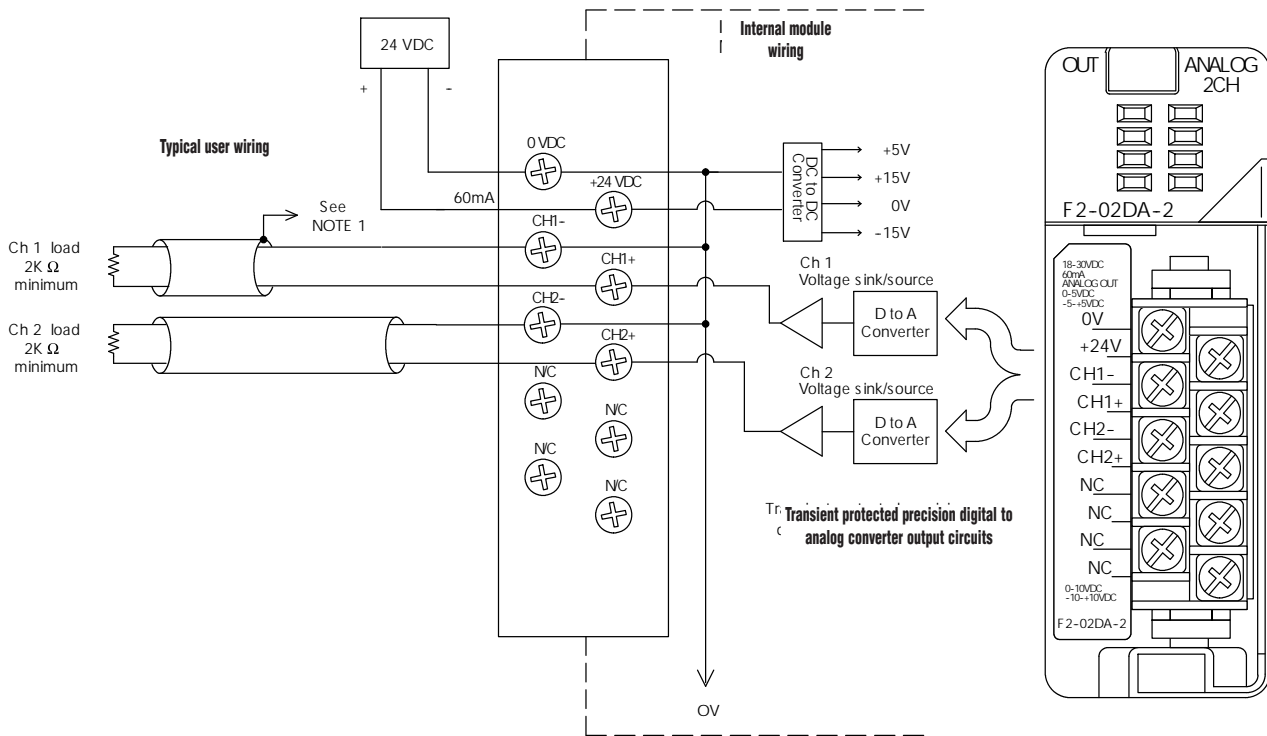
F2-02DA-2 2-Channel Voltage Analog Output	
This module requires a 24 VDC user power supply for operation. See the F2-02DA-2L on the next page if you want to use a 12 VDC supply. All other specifications are the same.	
Number of Channels	2
Output Ranges	0 to 5V, 0 to 10 V, $\pm 5V$, $\pm 10 V$
Resolution	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 @ 77°F (25°C) ± 16 counts max. bipolar @ 77°F (25°C)
Offset Calibration Error	± 3 counts max., unipolar @ 77°F (25°C) ± 8 counts max., bipolar @ 77°F (25°C)

Accuracy vs. Temperature	± 50 ppm/ $^{\circ}C$ full scale calibration change (including maximum offset change of 2 counts)
Maximum Inaccuracy	+0.3% unipolar ranges @ 77°F (25°C) $\pm 0.45\%$ unipolar ranges >77°F (25°C) $\pm 0.4\%$ bipolar ranges @ 77°F (25°C) $\pm 0.55\%$ bipolar ranges >77°F (25°C)
Base Power Required 5VDC	40 mA
External Power Supply	18 to 30 VDC, 60 mA (outputs fully loaded)
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; D2-810CON

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 R/S.

NOTE 2: Unused voltage outputs should remain open (no connections) for minimum power consumption.



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- DL205 PLC**
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- DL405 PLC
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