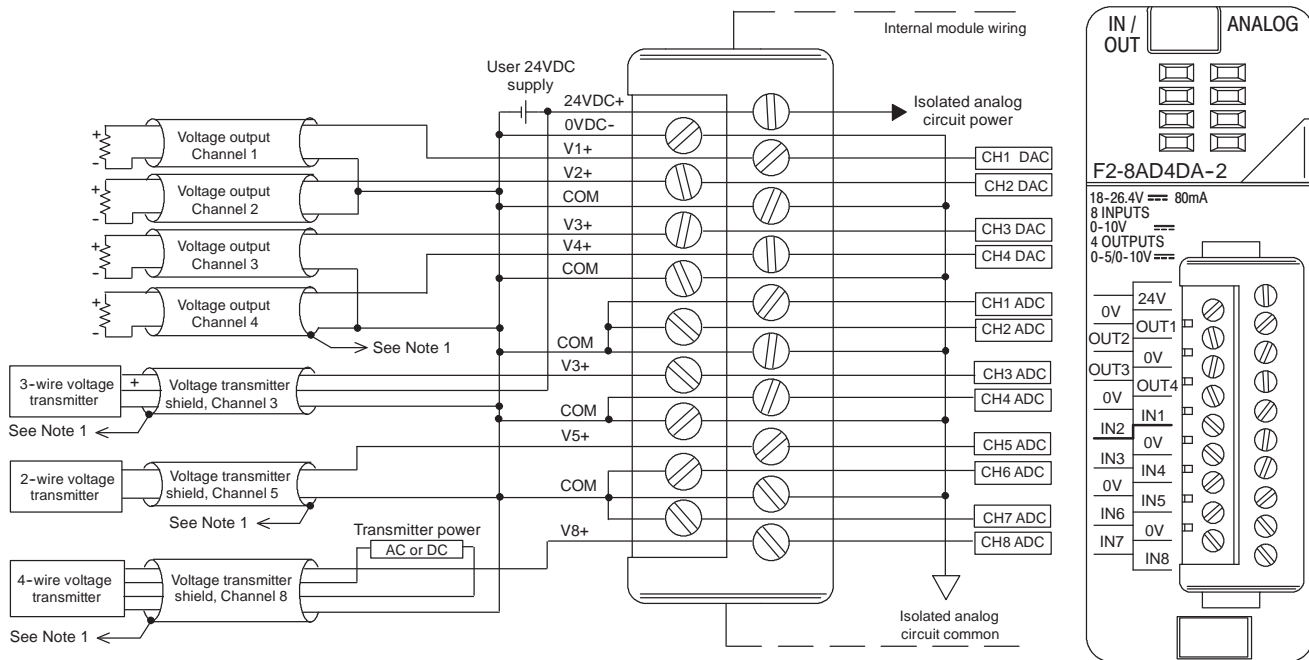


Analog In/Out Combination Module

NOT SUPPORTED IN D2-230 AND D2-240 CPUs.

F2-8AD4DA-2 8-Channel Analog Voltage Input / 4-Channel Analog Voltage Output	
Input Channels per Module	8, single ended (one common)
Input Range	0 to 10 V
Resolution	12, 14, 16-bit selectable
External DC Power Required	80 mA @ 18-26.4 VDC
Max. Continuous Overload	±100 V
Input Impedance	>10 MΩ
Filter Characteristics	Active low pass, -3 dB @ 80Hz
Conversion Time	12-bit = 1.5 ms per channel 14-bit = 6 ms per channel 16-bit = 25 ms per channel
Conversion Method	Over sampling successive approximation
Accuracy vs. Temperature	±50 ppm / °C Max.
Maximim Inaccuracy	0.1% of range
Linearity Error (End to End)	12-bit = ±1 count max. (±0.025% of range) 14-bit = ±4 count max. (±0.025% of range) 16-bit = ±16 count max. (±0.025% of range) Monotonic with no missing codes
Full Scale Calibration Error (not including offset error)	±0.075% of range max.
Offset Calibration Error	±0.025% of range max.
Base Power Required 5VDC	35 mA

Output Channels per Module	4
Output Range	0 - 5V, 0 - 10V
Resolution	0 to 5V at 15-bit, 0 to 10V at 16-bit, 152 μV/bit
Output Type	Voltage sourcing/sinking at 10 mA max.
Load Impedance	>1000 Ω
Max. Inaccuracy	0.15% of range
Max. Full Scale Calibration Error (not incl. offset error)	±0.075% of range max.
Max. Offset Calibration Error	±0.025% of range max.
Accuracy vs. Temperature	±50 ppm/ °C max. full scale calibration change (± 0.005% of range / °C)
Max. Crosstalk @ DC, 50/60Hz	-70 dB, 1 LSB
Linearity Error (End to End)	±1 count max. (±0.025% of full scale) Monotonic with no missing codes
Output Stability and Repeatability	±1 LSB after 10 min. warm-up typical
Output Ripple	0.005% of full scale
Output Settling Time	0.5 ms max., 5μs min. (full scale change)
Max. Continuous Overload	Outputs current limited to 15 mA typical
Type of Output Protection	1 VDC peak output voltage (clamped by transient voltage suppressor)
Output Signal at Power-up and Power-down	0V
Terminal Type (included)	Removable; D2-16IOCON



Note 1: Connect shields to the 0V of the module; do not connect both ends of shield.

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- DL205 PLC**
- DL305 PLC
- DL405 PLC
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