

DL05 Option Cards

F0-2AD2DA-2
voltage 2-channel
in/2-channel out
combination analog
input module



Input Specifications	
Number of channels	2, single ended (one common)
Input range	0 to 5VDC or 0 to 10VDC (jumper selectable)
Resolution	12 bit (1 in 4096)
Step response	10.0mS to 95% of full step change
Crosstalk	1/2 count max (-80db)*
Active low-pass filtering	-3 dB at 120Hz (-12dB per octave)
Input impedance	>20KΩ
Absolute max ratings	±15V
Linearity error (end to end)	±1 count (0.025% of full scale) max*
Input stability	±1 count*
Gain error	±6 counts
Offset error	±2 counts
Max inaccuracy	0.3% at 25°C (77°F) 0.6% at 0 to 60°C (32 to 140°F)
Accuracy vs temperature	±50 ppm/°C typical

Output Specifications	
Number of channels	2, single ended (one common)
Output range	0 to 5VDC or 0 to 10VDC (jumper selectable)
Resolution	12 bit (1 in 4096)
Conversion settling time	50μS for full scale change
Crosstalk	1/2 count max (-80db)*
Peak output voltage	±15VDC (power supply limited)
Offset error	0.9% of range
Gain error	0.4% of range
Linearity error (end to end)	±3 counts (0.075% of full scale) max*
Output stability	±2 counts*
Load impedance	2KΩ max
Load capacitance	0.01μF max
Max inaccuracy	0.3% at 25°C (77°F) 0.6% at 0 to 60°C (32 to 140°F)
Accuracy vs temperature	±50 ppm/°C typical

General Specifications	
PLC update rate	2 input channels per scan / 2 output channels per scan
16-bit data word	12 binary data bits
Operating temperature	0 to 60°C (32 to 140°F)
Storage temperature	-20 to 70°C (-4 to 158°F)
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
Power budget required	50mA @ 5VDC (supplied by base)
External power supply	30mA, 18.0 to 26.4VDC
Connector wire size / Torque / Screwdriver size	28-16AWG / 0.4Nm / DN-SS1 (recommended)

* One count in the specification table is equal to one least significant bit of the analog data value (1 in 4096)

