

SJ-ETHER/SJ Series

Analog Module

Analog Input/Output Module 《Input 4 Channels・Output 2 Channels》

C0-4AD2DA-1



General Specifications

Items	Specifications
Field to Logic Side Isolation	1,800 V AC for 1 sec.
External 24 VDC Power Required	75 mA
Bus Power Required (24 V DC)	25 mA
Recommended Fuse (External)	ADC p/n S500-32-R (0.032A fuse)
Terminal Block Replacement	ADC p/n C0-16TB
Weight	86 g

Input Specifications

Items	Specifications
Inputs per Module	4
Input Range	0 to 20 mA (Sink)
Resolution	13-bit, 2.44 uA/count
Input Type	Single ended (One common)
Maximum Continuous Overload	±44 mA
Input Impedance	124 Ω, 0.5 W current input
Filter Characteristics	Low pass, -3 dB at 400 Hz
PLC Data Format	13-bit unsigned Integer, range is 0-8191
Sample Duration Time	5 ms
All Channel Update Rate	20 ms (Input plus output maximum time)
Open Circuit Detection Time	Zero reading within 20 ms
Conversion Method	Successive approximation
Accuracy Against Temperature	Maximum ±75 ppm/°C
Maximum Inaccuracy	0.5% of range (Including temperature changes)
Linearity Error (End-to-end)	±3 count maximum, monotonic with no missing codes
Input Stability and Repeatability	Maximum ±2 count
Full Scale Error (Including Offset)	Maximum ±8 count
Offset Error	Maximum ±8 count
Maximum Crosstalk at DC, 50/60 Hz	Maximum ±2 count

Output Specifications

Items	Specifications
Outputs per Module	2
Output Range	4 to 20 mA (Source)
Resolution	12-bit, 3.9 uA/count
Output Type	Current sourcing at 20 mA maximum (One common)
PLC Data Format	12-bit unsigned integer, 0-4095 counts
Output Value in Fault Mode	Less than 4 mA
Load Impedance	0 to 600 Ω at 24 VDC; minimum load: 0 Ω 32°F to 113°F (0°C to 45°C); 125 Ω 113°F to 131°F (45°C to 55°C) ambient temp.
Maximum Inductive Load	1 mH
Allowed Load Type	Grounded

Maximum Inaccuracy	±1% of range
Maximum Full Scale Error (Including Offset)	±0.2% of range maximum
Maximum Offset Error	±0.2% of range maximum
Accuracy Against Temperature	±75 ppm/°C maximum full scale calibration change (±0.005% of range/°C)
Maximum Crosstalk at DC, 50/60 Hz	-72 dB, 1 LSB
Linearity Error (End-to-end)	±4 LSB maximum, (±0.1% of full scale), monotonic with no missing codes
Output Stability and Repeatability	±2% LSB after 10 minute warmup period typical
Output Ripple	±0.1% of full scale
Output Settling Time	0.2 ms maximum, 5 μs minimum (Full scale range)
All Channel Update Rate	20 ms
Maximum Continuous Overload	Outputs open circuit protected
Type of Output Protection	Electronically limited to 20 mA or less
Output Signal at Power Up and Power Down	4 mA

Wiring Diagram

