

10-chan. Isolated Thermocouple Input Module

I-7000 is a family of network data acquisition and control modules. They provide analog to digital, digital to analog, digital input/output, timer/counter and other functions. The modules can be remotely controlled by a set of commands. The I-7018Z is a 10-channel analog input module. It comes with a terminal strip board that has CJC compensation for thermocouples with an **integral metal plate** for high accuracy.

Specifications

Analog Input

- Isolation: 3000 VDC
- 4KV ESD protection for each input terminal
- Type: mV, V, mA (with external 125 ohm resistor)
- Thermocouple: Type J, K, T, E, R, S, B, N, C, L, M, L DIN43710
- Channels: 10 differential
- Ranges independently settable for each channel
- Voltage range: +/-15mV, +/-50mV, +/-100mV, +/- 500mV, +/-1V, +/- 2.5V
- Current range: +/-20mA, 0~20mA, 4~20mA (Requires Optional External 125 Ohm Resistor)
- Resolution: 16 bits
- Sampling rate: 10 Samples/Second (Total)
- Bandwidth: 15.7 Hz
- Input impedance: 300K Ohm at +/- 2.5V range, 100 K Ohm at thermocouple ranges
- Accuracy: ±0.1%
- Zero Drift: ± 0.5uV/°C
- Span Drift: 25ppm/°C
- CMR @ 50/60 Hz: 150 dB
- NMR @ 50/60 Hz: 100 dB
- Over voltage protection: 240V (RMS)
- Open thermocouple detection: yes

Thermocouple type : (C)	
Type	Range (°C)
J	-210~ +760
K	-270~+1372
T	-270~+400
E	-270~+1000
R	0~+1768
S	0~+1768
B	0~+1820
N	-270~1300
C	0~2320
L	-200~800
M	-200~100
L DIN43710	-200~900

Available with Modbus RTU protocol as M-7018Z-G/S

Block Diagram

