



Model I-7013D

## Model I-7013, I-7013D RTD Analog Input Module with LED Display (I-7013D)

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-7013 is a single channel RTD input module. The I-7013D is the I-7013 with 4 1/2 digital LED display.

### Specifications

#### Analog Input

- Channels: 1
- Type: Pt, Ni
- RTD Type: Pt100  $\alpha=0.00385$   
Pt100  $\alpha=0.003916$   
Ni 120  
Pt1000  $\alpha=0.00385$   
(version B1.0 or later)

Pt100	-100 C to +100 C	$\alpha=0.00385$
	0 C to +100 C	$\alpha=0.00385$
	0 C to +200 C	$\alpha=0.00385$
	0 C to +600 C	$\alpha=0.00385$
	-100 C to +100 C	$\alpha=0.003916$
	0 C to +100 C	$\alpha=0.003916$
	0 C to +200 C	$\alpha=0.003916$
Ni120	0 C to +600 C	$\alpha=0.003916$
	-80 C to +100 C	
Pt1000	0 C to +100 C	
	-200 C to +600 C	$\alpha=0.00385$

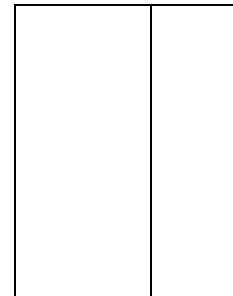
- Resolution: 16 bits
- Sampling rate: 10 Samples/Second
- Bandwidth: 5.24 Hz
- Accuracy:  $\pm 0.05\%$
- Zero Drift:  $\pm 0.5\mu V/^{\circ}C$
- Span Drift:  $\pm 1.0\mu V/^{\circ}C$
- CMR @ 50/60 Hz: 150 dB min
- NMR @ 50/60 Hz: 100 dB min
- Isolation: 3000Vrms
- Wire Connector: 2/3/4 wire

### Feature/Benefits

- 3000VDC isolated analog input
- 24bit sigma-delta ADC to provide excellent accuracy
- Software calibration
- Dual Watchdog
- RTD direct connect

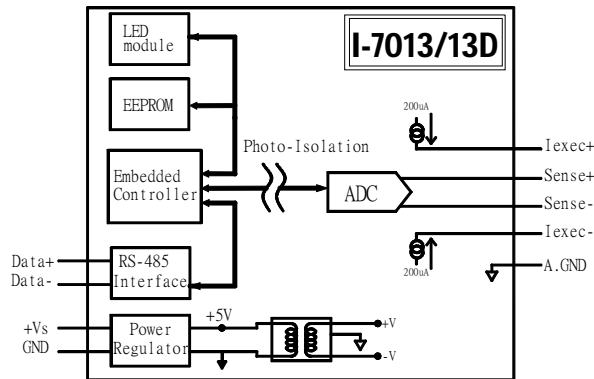
### PIN Assignments

+I EXEC	1
+SENSE	
-SENSE	
-I EXEC	
A GND	
INIT*	
(Y)DATA+	
(G)DATA-	
(R)+Vs	
(B)GND	10





**Block Diagram**



**LED Indication** 4 1/2 digits (only for I-7013D)

**RS-485 Connector**

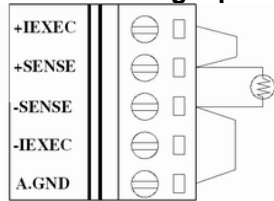
Asynchronous 2-wire half-duplex  
Pluggable terminal block: Pitch 5.08mm

**Baud Rate**

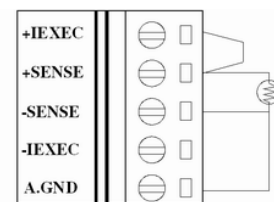
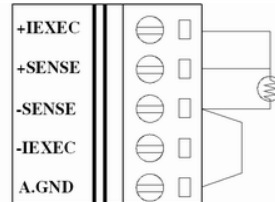
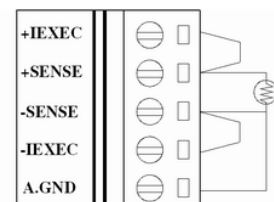
1.2K/2.4K/4.8K/9.6K/19.2K/38.4K/57.6K/115.2K bps

**Wire Connection**

**2-wire RTD Analog Input**



**3-wire RTD Analog Input**



**4-wire RTD Analog Input**

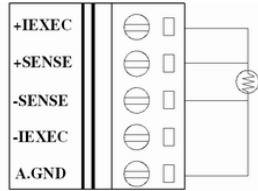




CAGE/NCAGE Code: 3FNFO

(310) 517-9888  
www.icpdas-usa.com

High Quality Data Acquisition and Embedded Control Products



**Power Requirements**

Power input: +10~+30Vdc input

**Power Consumption**

0.7Watt for I-7013  
1.3Watt for I-7013D

**Environmental**

Storage temperature: -25°C to 80°C  
Operation temperature: -20°C to 75°C  
Humidity: 5 to 95%, non-condensing

**Dimensions:** 120L x 72W x 33H cm  
**Certification:** CE

