

# Analog Modules

## ND-6013

### 3-CH RTD Input Module



#### Analog Input

- Channels: 3
- Input Type: Pt-100, Ni-100, or Ni-120 RTD

RTD Type	Temperature Range
Pt	-100°C to +100°C = 0.00385
Pt	0°C to +100°C = 0.00385
Pt	0°C to +200°C = 0.00385
Pt	0°C to +600°C = 0.00385
Pt	-100°C to +100°C = 0.003916
Pt	0°C to +100°C = 0.003916
Pt	0°C to +200°C = 0.003916
Pt	0°C to +600°C = 0.003916
Ni-100	0°C to +100°C
Ni-120	0°C to +100°C
Ω	0 Ω to +60 Ω

- Isolation Voltage: 2500V<sub>RMS</sub>
  - Sampling Rate: 10 samples/sec
  - Input Wiring: 2, 3, or 4 wires
- #### Power
- Requirement: unregulated +10V to +30V<sub>DC</sub>
  - Power Consumption: 0.696W typical

## ND-6017

### 8-CH Analog Input Module



#### Analog Input

- Channels: 6 Differential & 2 Singled-ended
- Input Type: mV, V, and mA
- Input Range: ±150mV, ±500mV, ±1V, ±5V, ±10V
- Current Range: 0~20mA (with external 125Ω resistor)
- Isolated Voltage: 2500V<sub>RMS</sub>
- Sampling Rate: 10 samples/sec

#### Power

- Requirement: unregulated +10V to +30V<sub>DC</sub>
- Power Consumption: 1.2W typical

## ND-6018

### 8-CH Thermocouple Input Module



#### Analog Input

- Channels: 6 Differential & 2 Singled-ended
- Input Type: Thermocouple, mV, V, or mA
- Thermocouple Type: J, K, T, E, R, S, B, N, C
- Thermocouple Input Range

• J: 0°C-760°C	• K: 0°C-1,370°C
• T: -100°C-400°C	• E: 0°C-1,000°C
• R: 500°C-1,750°C	• S: 500°C-1,750°C
• B: 500°C-1,800°C	• N: -270°C-1,300°C
• C: 0°C-2,320°C	

- Internal CJC can be enable/disable
- Voltage Range: ±15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V
- Current Range: 0~20mA (with external 125Ω resistor)
- Isolated Voltage: 2500V<sub>RMS</sub>
- Sampling Rate: 3 samples/sec

#### Power

- Requirement: unregulated +10V to +30V<sub>DC</sub>
- Power Consumption: 0.96W typical

## ND-6021

### Analog Output Module



#### Single Channel Analog Output

- Voltage Output: 0~+10V
- Current Output: 0~+20mA, +4~+20mA
- Output Isolation: 5000V<sub>RMS</sub>
- Resolution: 12-bit output resolution Accuracy
- Programmable Output Slope
  - 0.125 to 128mA/sec
  - 0.0625 to 64V/sec
- Current Load Resistor: 0 to 500Ω

#### Power

- Requirement: unregulated +10V to +30V<sub>DC</sub>
- Power Consumption: 1.32W typical

## ND-6024

### 4-CH Analog Output Module



#### Analog Output

- Channels: 4
- Voltage Output -10V~+10V
- Resolution: 12 bits
- Accuracy: ±0.02% of FSR
- Maximum current output: ±10μA
- Gain Drift: 10ppm FSR/°C

#### Digital Input

- Channels: 7
- Switching Levels: TTL
- Internal Pull-up resistor: 10k

#### Power

- Requirement: unregulated +10V to +30V<sub>DC</sub>
- Power Consumption: 1.848W typical

1 Software

2 GEME

3 Motion Control

4 Machine Vision

5 High Speed Link

6 Communications

7 cPCI & IPC

8 NuDAM