

FEATURES

- **Resistance Temperature Detector Module Offered**
- **Current and Voltage Input Module Offered**
- **Provides Wide Input Range**
- **Up to 6 Analog Input Modules in One PLC-K5 System**
- **12-bit Conversion for High-Resolution Measurement**
- **Very Reliable  $\pm 0.3\%$  Error**



DESCRIPTION

The KNC-PLC-K531 Analog Input Expansion Modules are offered for current and voltage inputs or Resistance Temperature Detector (RTD) sensor inputs. The KNC-PLC-K531-04RD is an RTD module that accepts the following sensor types: Pt100, Pt1000, Cu50, and Cu100. The KNC-PLC-K531-04IV performs a 12-bit conversion on the inputs for high-resolution measurement and can be configured to read voltages or currents of different ranges. The KNC-PLC-K531-04IV can accept a current range 0-20 mA or 4-20 mA, and a voltage range of 1-5 Vdc or 0-10 Vdc. The KNC-PLC-K531 series has an accuracy of +/- 0.3% ensuring a precise reading. These modules are attached to the KNC-PLC-K5 CPU series to provide analog input capabilities. Up to 6 of the analog input modules can be attached to the KNC-PLC-K5 CPUs, allowing for a maximum of 24 analog inputs or 28 analog inputs if using the KNC-PLC-K506EA-30AT.

SPECIFICATIONS

| Parameter               | KNC-PLC-K531-04IV  | KNC-PLC-K531-04RD   |
|-------------------------|--|---|
| Input Points            | 4  | 4   |
| Input Signal            | Current or Voltage   | Pt100, Cu50, Pt1000, Cu100 are Selectable, 2-Wire or 3-Wire   |
| Measurement Accuracy    | $\pm 0.3\%$ F.S.   | $\pm 0.3^{\circ}\text{C}$ , Resolution $0.1^{\circ}\text{C}$  |
| Measurement Range       | 4-20 mA, 0-20 mA, 1-5 Vdc, 0-10 Vdc                                | Pt100: $-200\sim 850^{\circ}\text{C}$ ,<br>Cu50: $-50\sim 150^{\circ}\text{C}$ ,<br>Pt1000: $-50\sim 300^{\circ}\text{C}$ |
| Parameter Configuration | Each Channel Can be Configured Separately by Kincobuilder Software |   |
| Signal Limitation       | Input Current < 24 mA<br>Input Voltage < 12 Vdc                    | ----  |
| Error Indication        | Red LED for Each Channel Indicates Excessive Measurement Range     |   |
| Module Width            | 50 mm  |   |

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# KNC-PLC-K531 - Analog Input Expansion Modules



EXPANSION

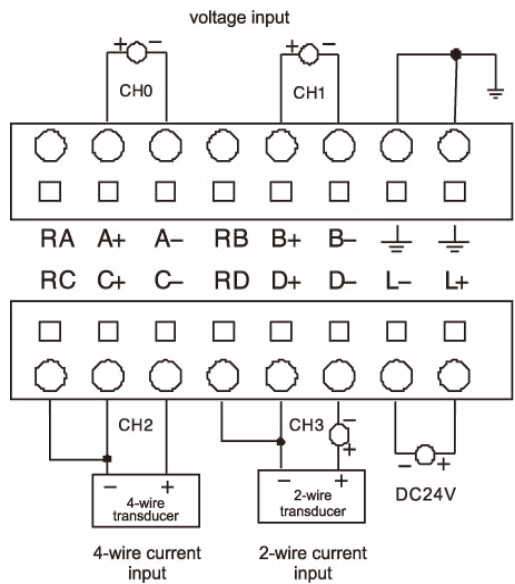


In each system, the CPU module is arranged in the leftmost end, and expansion modules are connected to the expansion interface on the right.

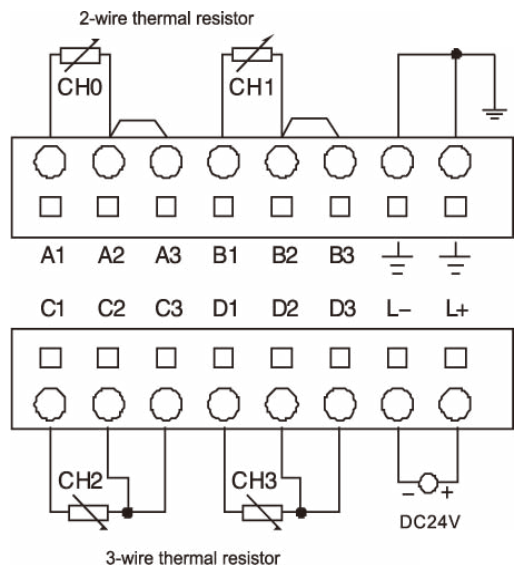
A cable slot is designed on the left side of each expansion module. The expansion cable can be put in the cable slot to ensure seamless interconnection between modules after installing.

WIRING DIAGRAMS

## KNC-PLC-K531-04IV



## KNC-PLC-K531-04RD



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