



**Model:I-87013**



**Model:I-87013-G**

# I-87013/I-87013-G

4-channel RTD Input Module



## Specifications

### Analog Input

|  |                               |
|--|-------------------------------|
| Input Channels                         | 4                             |
| Input Type                             | Pt, Ni                        |
| Wire Connection                        | 2/3/4 Wire                    |
| Resolution                             | 16-bit                        |
| Sampling Rate                          | 10 Samples/ sec (Total)       |
| Accuracy                               | +/- 0.1% of FSR               |
| -3dB BandWidth                         | 15.7Hz                        |
| Zero Drift                             | +/- 0.5 $\mu$ V/ $^{\circ}$ C |
| Span Drift                             | +/- 25 $\mu$ V/ $^{\circ}$ C  |
| Common Mode Rejection                  | 150dB min                     |
| Normal Mode Rejection                  | 100 dB                        |
| Wire Opening Detection                 | Yes                           |
| Intra-module Isolation, Field to Logic | 3000VDC                       |

### LED Display

- 1 LED as Power/ Communication Indicator
- 8 LEDs as High/ Low Alarm Signals

### Power

|                   |                |
|-------------------|----------------|
| Power Consumption | Maximum : 1.1W |
|-------------------|----------------|

### Environment

|                       |                          |
|-----------------------|--------------------------|
| Operating Temperature | -25 to 75 $^{\circ}$ C   |
| Storage Temperature   | -30 to 75 $^{\circ}$ C   |
| Humidity              | 5 to 95%, Non-condensing |

### Dimensions

31 x 67 x 114 (W x D x H) [Detail](#)

## RTD temperature range

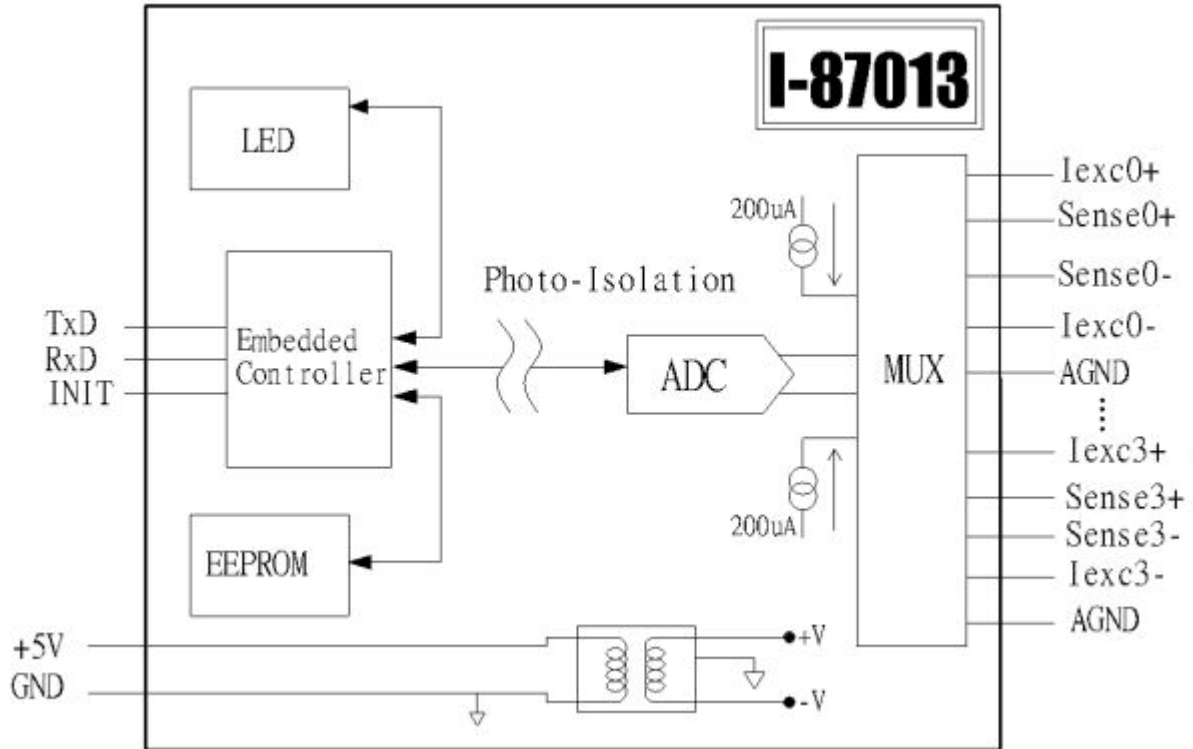
| Type Code | RTD Type                     | Temperature Range $^{\circ}$ C |
|-----------|------------------------------|--------------------------------|
| 20        | Platinum 100, $\pm$ 0.00385  | -100 ~ 100                     |
| 21        | Platinum 100, $\pm$ 0.00385  | 0 ~ 100                        |
| 22        | Platinum 100, $\pm$ 0.00385  | 0 ~ 200                        |
| 23        | Platinum 100, $\pm$ 0.00385  | 0 ~ 600                        |
| 24        | Platinum 100, $\pm$ 0.003916 | -100 ~ 100                     |
| 25        | Platinum 100, $\pm$ 0.003916 | 0 ~ 100                        |
| 26        | Platinum 100, $\pm$ 0.003916 | 0 ~ 200                        |
| 27        | Platinum 100, $\pm$ 0.003916 | 0 ~ 600                        |
| 28        | Nickel 120                   | -80 ~ 100                      |
| 29        | Nickel 120                   | 0 ~ 100                        |
| 2A        | Platinum 1000, $\pm$ 0.00385 | -200 ~ 600                     |

**Ordering information**

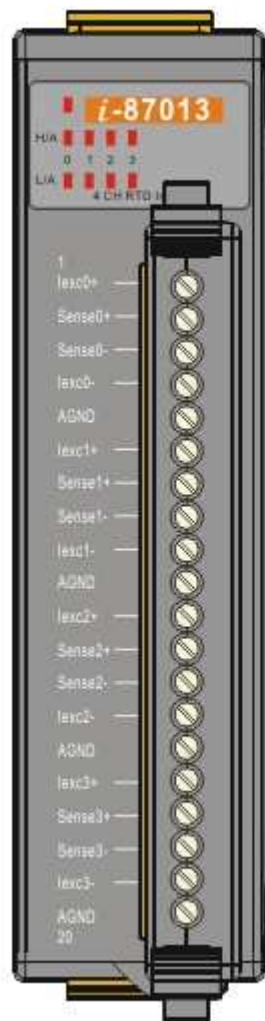
|              |  |
|--------------|--|
| I-87013      | 4-channel RTD Input Module (Blue Cover)        |
| I-87013-G    | 4-channel RTD Input Module (Gray Cover)        |
| I-87013 CR   | 4-channel RTD Input Module (Blue Cover) (RoHS) |
| I-87013-G CR | 4-channel RTD Input Module (Gray Cover) (RoHS) |

# I-87013/ I-87013(G) Hardware

## Internal I/O Structure



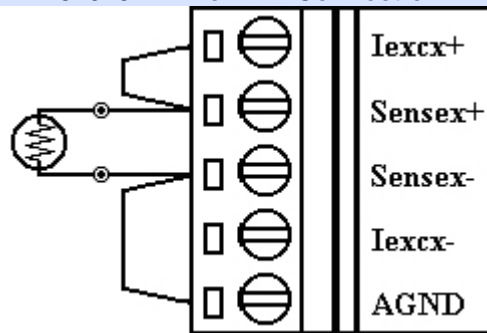
## PIN Assignment



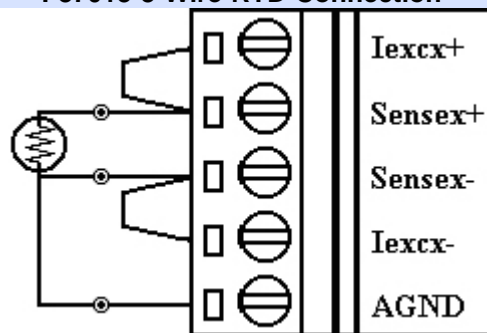
| Terminal No. | Pin Assignment Name |
|--------------|---------------------|
| 01           | lexc0+              |
| 02           | Sense0+             |
| 03           | Sense0-             |
| 04           | lexc0-              |
| 05           | AGND                |
| 06           | lexc1+              |
| 07           | Sense+              |
| 08           | Sense1-             |
| 09           | lexc1-              |
| 10           | AGND                |
| 11           | lexc2+              |
| 12           | Sense2+             |
| 13           | Sense2-             |
| 14           | lexc2-              |
| 15           | AGND                |
| 16           | lexc3+              |
| 17           | Sense3+             |
| 18           | Sense3-             |
| 19           | lexc3-              |
| 20           | AGND                |

## Wire Connection

I-87013-2-Wire-RTD-Connection



I-87013-3-Wire-RTD-Connection



I-87013-4-Wire-RTD-Connection

