



## R-9015

12-ch RTD Input Redundant Module

### Features

- 12 RTD input channels
- User defined up/down scale
- 16 bit A/D Converter
- Channel disconnection detection
- Termination board disconnection detection
- Redundant switching time (<1 ms)



### Introduction

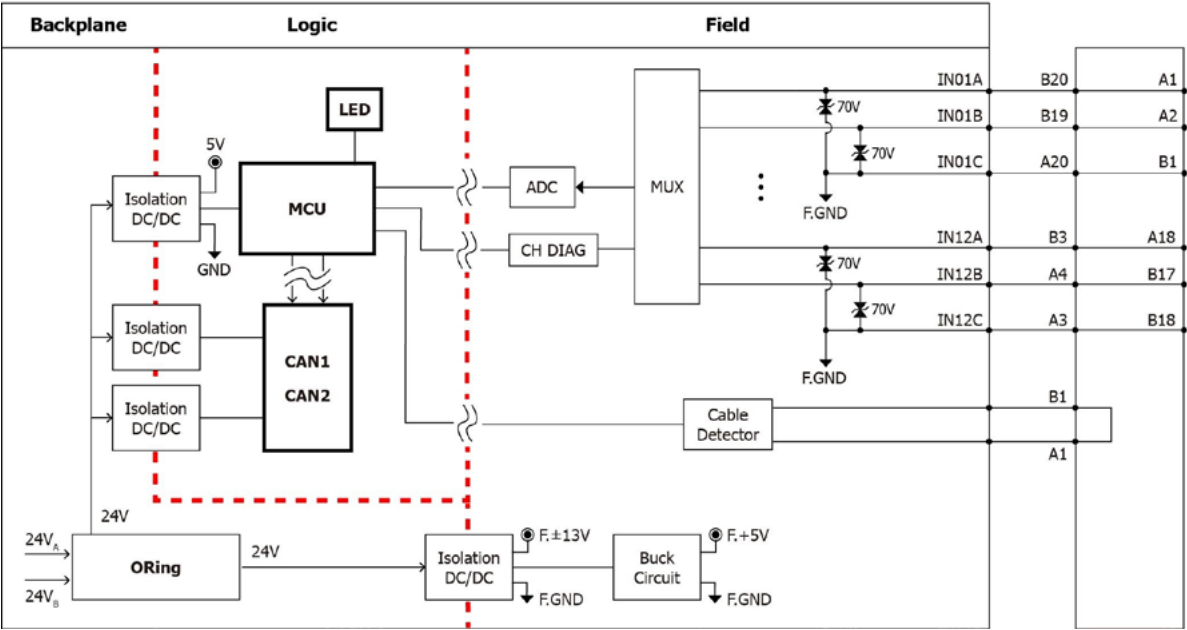
R-9015 is a 16-bit 12-channel RTD input module. Each channel has a self-programmable input range and an accuracy of  $\pm 0.05\%$ . It also provides 3000 VDC isolation between the power supply and the backplane bus, making it better able to prevent noise interference in industrial environments without affecting the RIO-98x0 system.

### Specifications

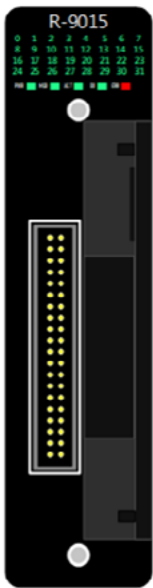
| Features                |         |                                                            |
|-------------------------|---------|------------------------------------------------------------|
| Redundant               |         | Yes<br>(Switching time < 1 ms)                             |
| Disconnection Detection |         | Yes                                                        |
| Over-Current Protection |         | Yes                                                        |
| LED Indicator           |         | 1 PWR, 1 MOD,<br>1 ACT, 1 DX, 1 ERR                        |
|                         |         | LED 0~11 for CH Hi/Lo Alarm<br>LED 16~27 for CH Break Line |
| Analog Input            |         |                                                            |
| Number of Channels      |         | 12                                                         |
| Connection              |         | 3-Wire                                                     |
| Type                    | Pt 100  | IEC 60751 ITS90<br>(0.03851 Ω/Ω/°C)                        |
|                         | JPt 100 | JIS C 1604<br>(0.03916 Ω/Ω/°C)                             |
|                         | Pt 1000 | IEC 60751 ITS90<br>(0.03851 Ω/Ω/°C)                        |
| Range                   | Pt 100  | -200 ~ +850                                                |
|                         | JPt 100 | -200 ~ +630                                                |
|                         | Pt 1000 |                                                            |
| Resolution              |         | 16 bit                                                     |
| Sampling Rate           |         | 1 Samples/Sec.                                             |
| Accuracy                |         | ±0.05% FSR                                                 |

| Analog Input           |                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------|
| Zero Drift             | $\pm 0.5 \mu\text{V}/^{\circ}\text{C}$                                                       |
| Span Drift             | $\pm 20 \mu\text{V}/^{\circ}\text{C}$                                                        |
| Common Mode Rejection  | 106 dB                                                                                       |
| Normal Mode Rejection  | 100 dB                                                                                       |
| Input Impedance        | 20M $\Omega$                                                                                 |
| Date Range             | -2500~12500                                                                                  |
| Isolation              | 3000 VDC                                                                                     |
| Certification          |                                                                                              |
| EMC                    | EN 61000-6-2 (EMS)<br>EN 61000-6-4 (EMI)<br>IEC/EN 61000-4-2 (ESD)<br>IEC/EN 61000-4-4 (EFT) |
| General                |                                                                                              |
| Termination Board      | RDB-S03 / RDB-D03                                                                            |
| Max. Power Consumption | 2 W                                                                                          |
| Operating Temperature  | -25 ~ 70 $^{\circ}\text{C}$                                                                  |
| Storage Temperature    | -30 ~ 75 $^{\circ}\text{C}$                                                                  |
| Humidity               | 5 ~ 95 % RH,<br>Non-condensing                                                               |
| Weight                 | 200g                                                                                         |
| Dimensions (WxLxH)     | 33mm x 129mm x 130mm                                                                         |

I/O Structure

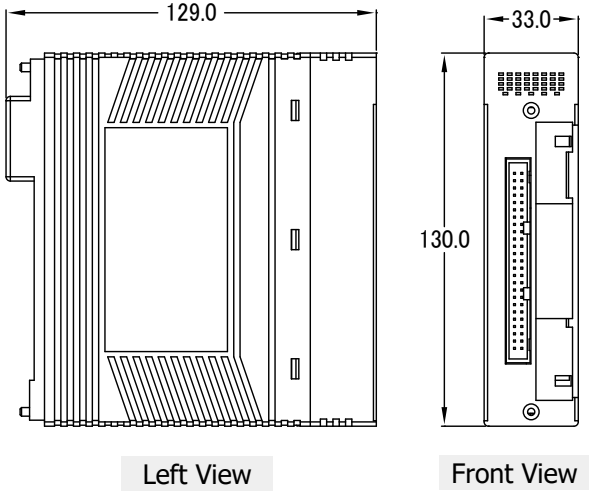


Pin Assignment



| Pin Assignment Name | Terminal No. | Pin Assignment Name |
|---------------------|--------------|---------------------|
| IN01A               | A1           | B1                  |
| IN01B               | A2           | B2                  |
| IN02A               | A3           | B3                  |
| IN03A               | A4           | B4                  |
| IN03B               | A5           | B5                  |
| IN04A               | A6           | B6                  |
| IN05A               | A7           | B7                  |
| IN05B               | A8           | B8                  |
| IN06A               | A9           | B9                  |
| IN07A               | A10          | B10                 |
| IN07B               | A11          | B11                 |
| IN08A               | A12          | B12                 |
| IN09A               | A13          | B13                 |
| IN09B               | A14          | B14                 |
| IN10A               | A15          | B15                 |
| IN11A               | A16          | B16                 |
| IN11B               | A17          | B17                 |
| IN12A               | A18          | B18                 |
| X                   | A19          | B19                 |
| BK                  | A20          | B20                 |

Dimensions (Units: mm)



Ordering Information

|                  |                                         |
|------------------|-----------------------------------------|
| <b>R-9015 CR</b> | 12-ch RTD Input Redundant Module (RoHS) |
|------------------|-----------------------------------------|

Accessories

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| <b>RDB-S03 CR</b> | Termination board for single RTD I/O modules (RoHS) |
| <b>RDB-D03 CR</b> | Termination board for duplex RTD I/O modules (RoHS) |