

Models:

4000 Series: 0-10V Output

5000 Series: 4-20mA Output

IRCx**4 Channel RTD Transducer****Overview**

The Innotech IRC Series is a 4 Channel PT100 temperature transducer with either 4-20mA or 0-10V outputs. It is ideally suited to applications requiring monitoring of broad temperature with a high degree of accuracy.

Specifications**Power Supply****4000 Series:**

- 24VAC $\pm 10\%$ @ 50/60Hz
- Power Consumption 7VA Max

5000 Series:

- 24VAC/DC $\pm 10\%$
- Power Consumption 7VA Max

Temperature Ratings

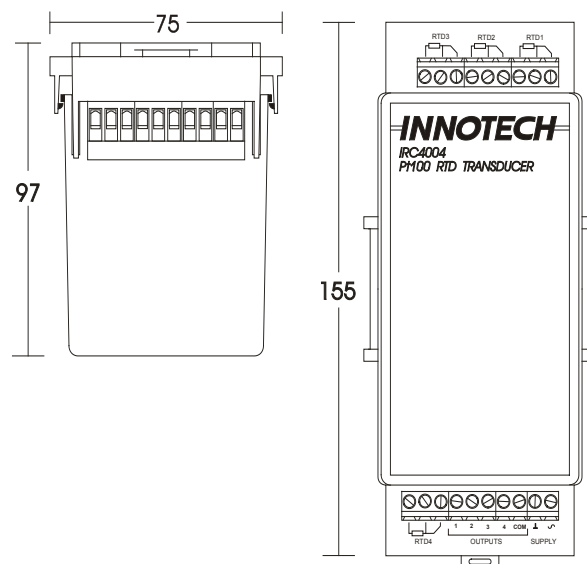
- Storage 0 to 50°C non-condensing
- Operating 0 to 40°C non-condensing

Enclosure & Mounting

The Innotech IRC Series are housed in rectangular cases suitable for DIN Rail mounting. Their housing is moulded from flame retardant plastics recognised by UL as UL 94-V0.

Colour: Grey

Dimensions: 155mm(L) X 75mm(W) X 97mm(H)

**Wiring**

- 4000 Series: Operate from 24VAC only
- 5000 Series: Operate from 24VAC/DC
- DO NOT connect 240VAC to any terminal
- DO NOT connect a voltage source to RTD inputs

Inputs

- 4x PT100 Platinum Resistive Temperature Device (100 Ohms at 0°C) in 2 or 3 wire configuration
- Sensor Excitation: 800 μ Amps

Outputs

- 4000 Series: 0-10VDC
- 5000 Series: 4-20mA Current Loop (Max Load Resistance 250 Ohms)

Temperature Measurement Ranges

- IRCx004 -100 to +600°C
- IRCx104 -100 to 0°C
- IRCx204 -50 to +50°C
- IRCx304 0 to +250°C

Measurement Accuracy

- Error: $\pm 1.0\%$ of span
- Linearity: $\pm 1.0\%$ of span

Adjustments

- Zero: $\pm 5\%$ of full scale
- Span: $\pm 5\%$ of full scale
- Set at factory

Broken Wire Detection

- Any open circuit RTD wire will cause its output to go to approximately 5% outside its normal operating range
i.e. 4000 Series - Output = -0.5V or 10.5V
5000 Series - Output = 2.2mA or 25mA

Applications

The Innotech IRC Series can be used in a variety of situations that require high accuracy monitoring of temperature over a broad range.

Industrial Automation and Process Control Interface

- SCADA Systems
- Research Facilities
- Cryogenic Chambers
- Oven Control/Monitoring
- Wide Temperature range applications

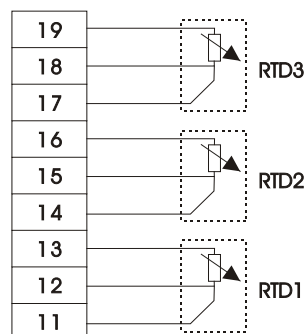
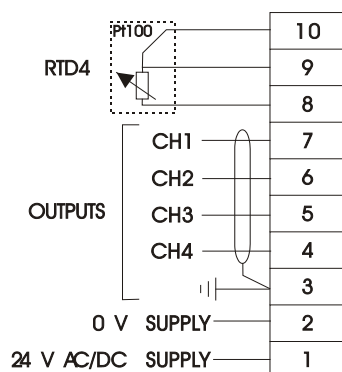
Features

- 4 Independent PT100 RTD Channels
- 2 or 3 Wire PT100 Inputs
- 4-20mA Current Loop output (IRC5x04)
- Optional 0-10V Output (IRC4x04)
- High Accuracy ($\pm 1.0\%$)
- Broken Wire Detection
- Factory configurable temperature ranges
- Non-interacting Span and Zero calibration pots
- Low temperature drift
- 24VAC Supply
- DIN Rail mountable

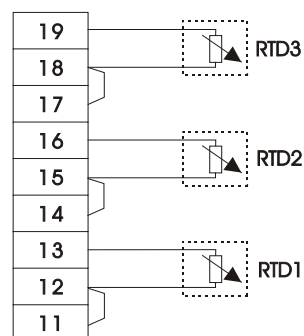
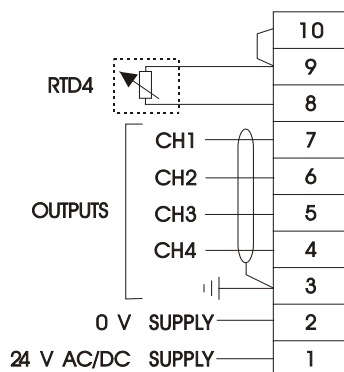
Approvals

The Innotech IRC Series conforms to the requirements for RCM labelling.

3WIRE RTD CONNECTION

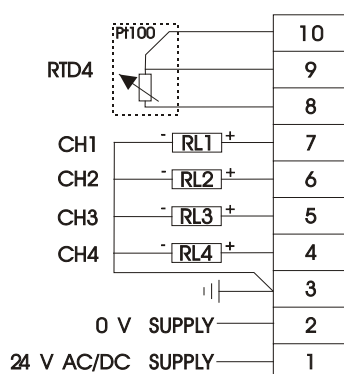


2WIRE RTD CONNECTION

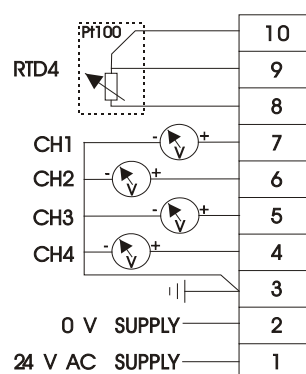


OUTPUT CONNECTION

5000 Series (4-20mA Current Loop)



4000 Series (0-10V Output)



RL1-RL4 = Load Resistance of Current Metering Device
i.e. PLC Input, 4-20mA display

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