

**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 $\mu$ 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**

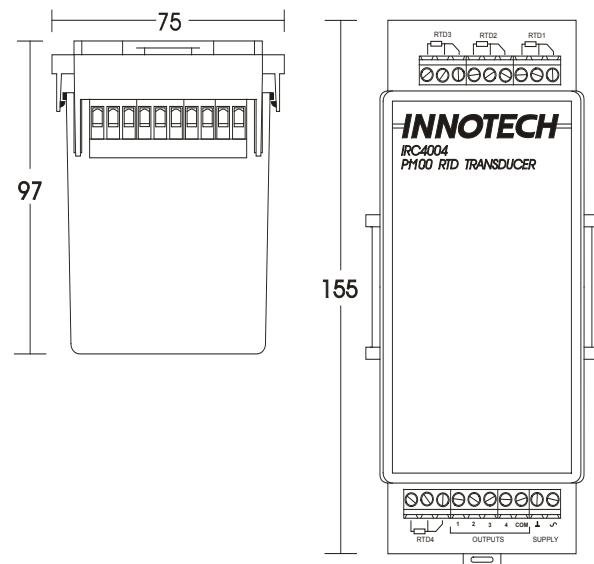
- Error:  $\pm 1.0\%$  of span
- Linearity:  $\pm 1.0\%$  of span

**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

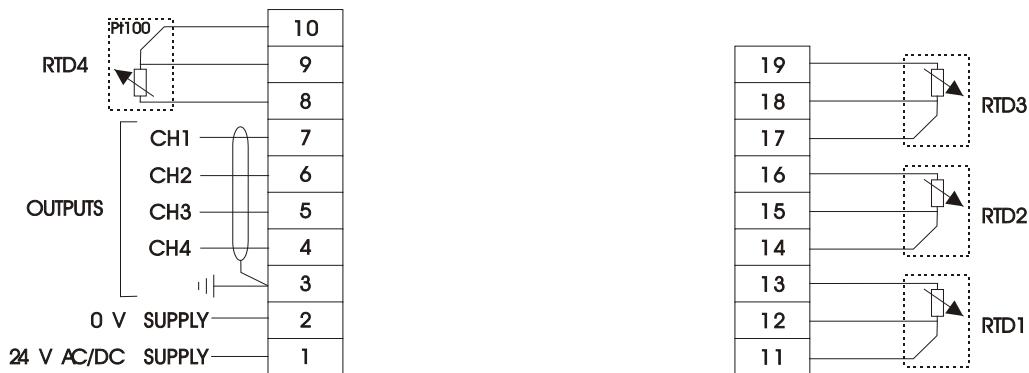
**Features**

- 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

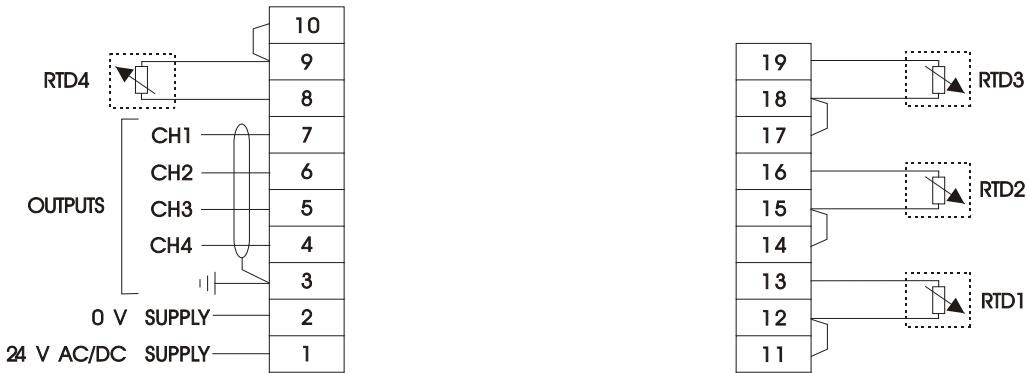
**Approvals**

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

### 3WIRE RTD CONNECTION

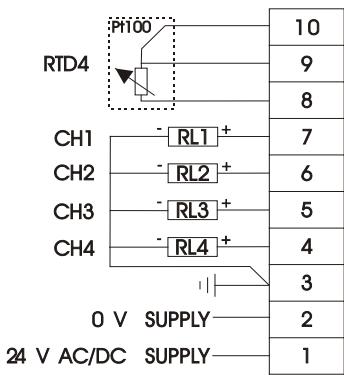


### 2WIRE RTD CONNECTION

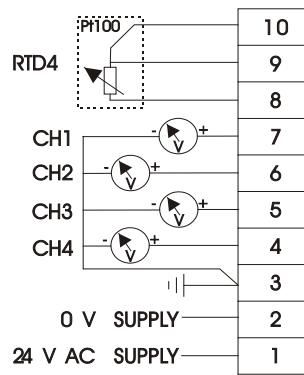


### OUTPUT CONNECTION

#### 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

**INNOTECH**<sup>®</sup>

Australian Owned, Designed & Manufactured  
 by Mass Electronics Brisbane

**Phone:** +61 7 3421 9100   **Fax:** +61 7 3421 9101  
**Email:** [sales@innotech.com.au](mailto:sales@innotech.com.au)   [www.innotech.com.au](http://www.innotech.com.au)

YOUR DISTRIBUTOR