



## 1049 Class A °C PT100 Simulator

- -200°C to + 800°C
- $\pm 0.3^\circ\text{C}$  accuracy
- Based on ITS 90 EN60751
- 23 set points
- Exceeds Class A
- Good temperature stability
- Passive resistance source



### Introduction

The 1049 is a precision simulator for PT100 0.3850 platinum resistance elements used for accurate temperature measurement.

It follows the PT100 scale from  $-200^\circ\text{C}$  to  $+800^\circ\text{C}$  with 23 set points. High performance metal film resistors are used throughout which ensures a good temperature coefficient and long term stability.

The specification is in accordance with DIN EN 60751 (ITS 90). Offering high accuracy across the full operating range of PT100 devices it exceeds the performance of Class A & B. The 1049 will be of particular interest to those operating in the  $-60$  to  $+60$  degC range where a performance exceeding Class A (e.g. better than  $\pm 0.15$  degC at 0 degC), is required.

Since the 1049's output is a purely passive resistance it will operate with all types of PT100 measuring equipment including the live systems using pulsed, or interrupted excitation current.

### Specifications

|                          |  |
|--------------------------|--|
| <b>Set points degC:</b>  | -200, -100, -50, -20, -10, 0, 10, 20, 30, 40, 50, 60, 80, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800.  |
| <b>Accuracy:</b>         | -200 to -60 degC $\pm 0.3$ degC<br>-60 to +60 degC $\pm 0.15$ degC<br>+60 to +200 degC $\pm 0.3$ degC<br>200 to 500 degC $\pm 0.5$ degC<br>500 to 800 degC $\pm 0.65$ degC |
| <b>Temp Coefficient:</b> | Less than 30 ppm per °C  |
| <b>Maximum Current:</b>  | 50 mA  |
| <b>Dimensions:</b>       | 61 x 112 x 55 mm (2.4 x 5 x 2.2 ins)   |
| <b>Weight:</b>           | 170 gm (6 oz)  |
| <b>Optional extras:</b>  | Calibration Certificate  |

### Ordering Information

| Description                              | Order Code  |
|--|-------------|
| Handheld PT100 degC Simulator            | <b>1049</b> |
| N.P.L. Traceable Calibration Certificate | <b>9161</b> |
| UKAS Calibration Certificate             | <b>9114</b> |