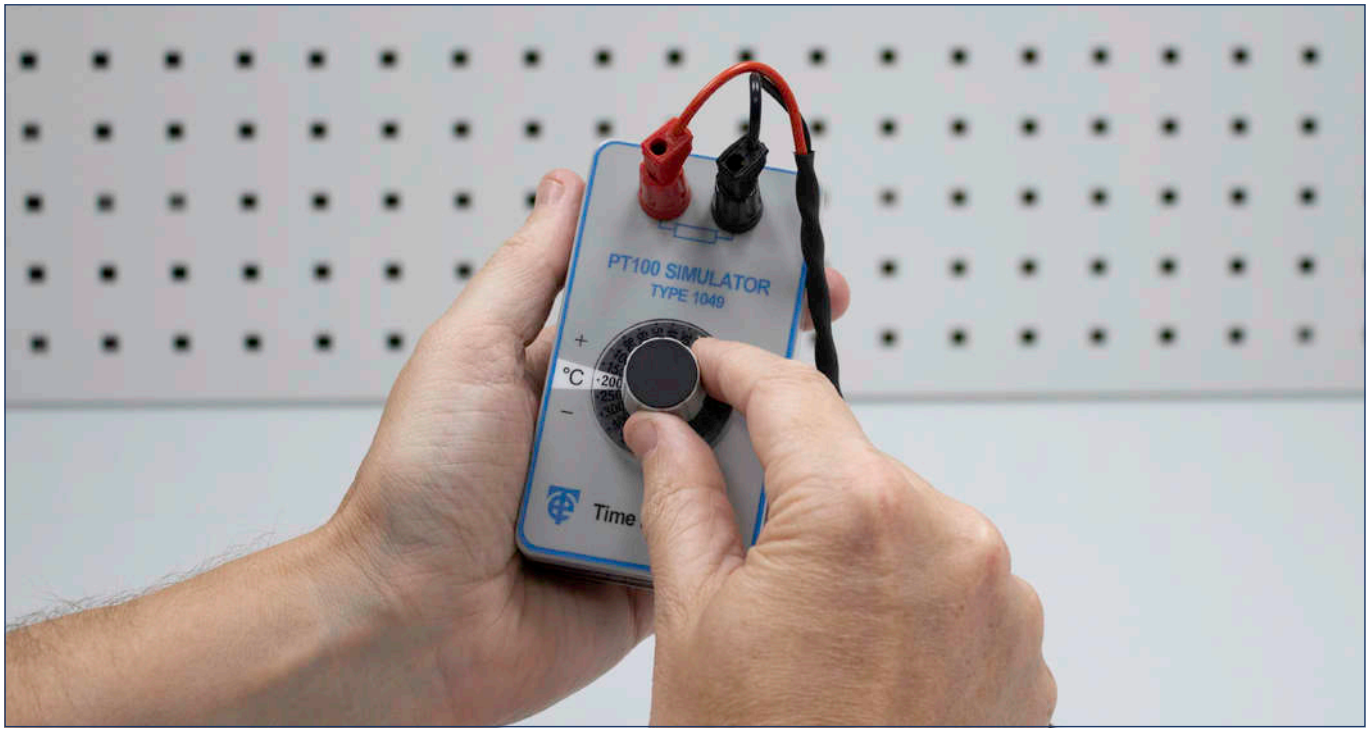
Time Electronics
1049 Pt100 Simulator



Description

The 1049 is a handheld precision simulator for Pt100 0.3850 platinum resistance elements used for accurate temperature measurement.

It follows the Pt100 scale from –200 °C to 800 °C with 23 set points. High performance metal film resistors are used throughout that ensure a good temperature coefficient and long term stability.

The specification is in accordance with DIN EN 60751 (ITS 90). The unit offers high accuracy across the full operating range of Pt100 devices and exceeds the performance of class A and B. The 1049 is particularly suitable for users operating in the –50 to +60 °C range and requiring performance exceeding class A (better than ± 0.15 °C at 0 °C).

Since the 1049 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. The pocket sized design (112 x 61 x 55 mm) makes it easily portable and ideal for lab or field use. The instrument is supplied as standard with a carry case.

Features

- –200 °C to 800 °C
- ± 0.3 °C accuracy
- Based on ITS 90 EN60751
- 23 set points
- Exceeds class A
- Good temperature stability
- Passive resistance source
- Supplied with carry case
- °F version available: Model 1050

Specifications

Set Points °C: -200, -100, -50, -20, -10, 0, 10, 20, 30, 40, 50, 60, 80, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800.

Range	–200 to –100 °C	–50 to +60 °C	80 to 200 °C	250 to 500 °C	600 to 800 °C
Accuracy	± 0.3 °C	± 0.15 °C	± 0.3 °C	± 0.5 °C	± 0.65 °C

Temperature coefficient ..... Less than 50 ppm/°C.

Maximum current ..... 50 mA.

Dimensions ..... H 112 x W 61 x D 55 mm (2.4 x 5 x 2.2 ").

Weight ..... 0.17 kg (0.4 lbs).

Ordering Information

1049 ..... **Pt100 Simulator (°C)**

1050 ..... Pt100 Simulator (°F version, see separate datasheet for details)

C161 ..... Traceable calibration certificate (Factory)

C114 ..... Accredited calibration certificate (ISO 17025)

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.

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