DP6

THERMOCOUPLE SIMULATOR
LINEARISED FOR 10 TYPES
& CALIBRATED TO ITS90 & IPTS68

The portable thermocouple calibrator is a compact and easy to use instrument that is equally at home in the laboratory or service environment. The DP6 will both measure and simulate the outputs from the 10 most popular thermocouple types, and may be scaled in °C, °F, °K or mV. Automatic reference junction compensation is provided with the option for manual value entry. For full portability the calibrator is powered by a rechargeable battery giving more than 15 hours continuous use. The DP6 is delivered in an ABS transport case which also houses the charger and a copper transition adapter for easy connection to miniature thermocouple plugs. A soft carrying bag with neck strap is available as an option.

KEY FEATURE	DP6
Linearised for 10 thermocouple types	■
Measures and sources	■
Calibrated to ITS90 and IPTS68	■
Displays in °C, °F, °K and mV	■
1 micro volt Resolution	■
Reference junction compensation	■
Rechargeable battery	■
Memory with 130 Stores	■
Digital calibration	■

DP6 SPECIFICATIONS

Code	Thermocouple Type °C	Range	Accuracy @ Source
B	PtRh30-PtRh6	+500 to +1820 +200 to +500 +60 to +200	±0.5°C ±1.5°C ±6.5°C
E	NiCr-CuNi	-200 to +1000 -250 to –200 -270 to –250	±0.2°C ±0.6°C ±6.0°C
J	Fe-CuNi	+800 to +1200 +200 to +800 0 to +200 -210 to 0	±0.3°C ±0.2°C ±0.1°C ±0.3°C
K	NiCr-NiAl	+1000 to +1370 +100 to +1000 -50 to +100 -150 to –50 -225 to -150 -270 to -225	±0.4°C ±0.3°C ±0.1°C ±0.2°C ±0.5°C ±3.0°C
L	Fe-CuNi	+300 to +900 -100 to + 300 -200 to -100	±0.2°C ±0.1°C ±0.15°C
N	NiCrSi-NiSi	+1100 to +1300 +400 to +1100 +150 to +400 0 to 150	±0.4°C ±0.3°C ±0.15°C ±0.1°C
R	PtRh13-Pt	+1200 to +1760 +100 to +1200 0 to +100 -50 to 0	±0.8°C ±0.4°C ±0.5°C ±0.8°C
S	PtRh10-Pt	+1400 to +1760 +1200 to +1400 +50 to +1200 -50 to +50	±0.95°C ±0.5°C ±0.4°C ±0.6°C
T	Cu-CuNi	-100 to +400 -230 to –100 -250 to –230 -270 to -250	±0.2°C ±0.5°C ±1.0°C ±2.5°C
U	Cu-CuNi	+300 to +400 0 to +300 -150 to 0 -200 to -150	±0.2°C ±0.1°C ±0.15°C ±0.2°C

Resolution on all types of thermocouple –0.1°C, 0.1°K, 0.1°F. Limits of error apply for 1 year at 20°C ±1°C

Range	Max Display	Uncertainty	Resolution
10mV	±15.000mV	±0.02% of reading ±0.015% FS	1µV
100mV	±150.00mV	±0.01% of reading ±0.015% FS	10µV
1V	±1.5000V	±0.01% of reading ±0.015% FS	100µV

Display

4.5 digit high contrast LCD 10.2mm. Display range 19999 digits, automatic decimal point, polarity and units. Two line alphanumeric LCD for programming and display of configuration

Ranges

The reference junction reference value may also be set via the keyboard over the range 0°C to +100°C

Terminals

2 4mm low thermal E.M.F. copper terminals

Working Temperature

0°C to +40°C

Storage Temperature

-20°C to +50°C

Mains Supply

External charger operating from mains supply

Dimensions

150mm x 130mm x 60mm (W H D) approx

Mass

1.4kg approx

Calibration

Digital pass code protected

Battery

6 Volt 1.2 Ah sealed lead acid, replaceable