



DBC Series

Dry Block Temperature Calibrators



Stable Heat, Where the Sensor Is.

Five dry-block calibrators covering -30°C to 1200°C between them. Each one heats a solid metal block to a controlled set point so RTDs, thermocouples, thermistors, bi-metal and liquid-in-glass sensors can be checked against a stable reference without a stirred liquid bath.

Temperature field stability reaches $\pm 0.02^{\circ}\text{C}$ on the low-temperature models, and insertion depths run from 135 mm to 165 mm so the whole sensing element sits inside the uniform zone. Soaking blocks are interchangeable, and the well pattern is chosen at order to suit the probe diameters you actually calibrate.

A 5.7-inch TFT touchscreen drives setpoint entry, heating and cooling directly, with load short circuit, load open circuit and sensor protection built in. All models run from a single-phase 220 V supply; the DBC-1200B is fitted with a USB device interface as standard.

KEY FEATURES

- Five models spanning -30°C to 1200°C
- Temperature field stability to $\pm 0.02^{\circ}\text{C}$
- Insertion depths of 135 mm to 165 mm
- Interchangeable soaking blocks · well pattern specified at order
- 5.7-inch TFT touchscreen · Chinese and English interface
- Load short circuit, load open circuit and sensor protection

IDEAL FOR

- On-site calibration of RTDs, thermocouples and thermistors
- Chemical, petrochemical and process plant maintenance
- Food and beverage temperature verification for HACCP
- Pharmaceutical autoclave, lyophiliser and chamber probes
- Calibration laboratories, research institutes and teaching

TECHNICAL SPECIFICATIONS

	Low temperature		Medium temperature	High temperature	
Model	DBC-150A	DBC-150B	DBC-650	DBC-1200	DBC-1200B
Temperature range	-20 °C to 150 °C	-30 °C to 150 °C	50 °C to 650 °C	300 °C to 1200 °C	100 °C to 1200 °C
Display accuracy	≤±0.1 °C	≤±0.1 °C	≤±0.35 °C to 400 °C ≤±0.5 °C, 400–650 °C	≤±1.2 °C	≤±1.2 °C
Temperature field stability	≤±0.02 °C	≤±0.02 °C	≤±0.05 °C	≤±0.2 °C	≤±0.2 °C
Horizontal temperature field	≤±0.05 °C	≤±0.05 °C	≤±0.05 °C	≤±0.25 °C	≤±0.25 °C
Vertical temperature field	≤1 °C within 30 mm of the well base				≤1 °C within 10 mm of the well base
Heating times	25→50 °C: 6 min 50→100 °C: 15 min 100→150 °C: 20 min		50→300 °C: 7 min 50→650 °C: 30 min	25→100 °C: 10 min 100→600 °C: 15 min 600→800 °C: 20 min 800→1200 °C: 30 min	
Cooling times	25→0 °C: 15 min 0→-20 °C: 15 min	25→0 °C: 15 min 0→-20 °C: 15 min -20→-30 °C: 22 min	—	—	—
Insertion depth	165 mm	160 mm	150 mm	135 mm	135 mm
Soaking block diameter	36 mm	32 mm	32 mm	39 mm	39 mm
Well pattern	Ø6 / 8 / 10 / 12 mm	Ø6 / 8 / 8 / 10 mm	Ø8 / 10 / 12 mm or Ø6 / 6 / 8 / 8 mm (specify at order)	Ø6 / 8 / 10 / 12 mm	Ø6 / 8 / 10 / 12 mm
Maximum power	300 W	300 W	1200 W	3000 W	3000 W
Net weight	11 kg	11 kg	11 kg	8 kg	8 kg
Gross weight	18.5 kg	18.5 kg	18.5 kg	16 kg	16 kg
Dimensions (w × d × h)	310 × 190 × 340 mm	310 × 190 × 340 mm	250 × 150 × 310 mm	250 × 150 × 310 mm	250 × 150 × 310 mm
USB device interface	Optional	Optional	Optional	Optional	Standard

Specifications apply at an ambient of 23 ±5 °C and are valid once the block has been stable at the set point for 10 minutes. Other temperature ranges and non-standard well patterns can be specified at time of order.



WHAT'S IN THE BOX

- DBC main unit, temperature range as ordered
- Interchangeable soaking block, well pattern as ordered
- Insert removal tool
- Mains lead
- Aluminium transit case
- User manual and warranty details

POWER · 220 V AC ±10%, 45 to 60 Hz, single phase

INSTALLATION · Operate upright only · leave clearance above the well for probe access

GENERAL SPECIFICATIONS

Code	Item	Part Number
DBC-150A	Dry block temperature calibrator, -20 °C to 150 °C	