



## **NICKEL-ELECTRO Ltd.**

Manufacturers of laboratory, medical and clinical equipment.

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Your local dealer is:



THE *Clifton* RANGE



**NICKEL-ELECTRO Ltd.**



## Welcome To Nickel-Electro

Nickel-Electro is a wholly independent, family owned company, based in the South West of England. We design and manufacture the well known Clifton Range of temperature controlled equipment and instrumentation, which includes unstirred, stirred, shaking baths, digital hotplates and the innovative Duobaths. Trading since 1941, continued investment and development has established Nickel-Electro as a leading manufacturer of laboratory instrumentation.

In addition Nickel-Electro manufactures a comprehensive range of laboratory consumables in a variety of materials including aluminium, stainless steel and nickel. This complements the Clifton Range and provides our customers with a single source of many types of laboratory equipment.

We carry out all manufacturing processes in our own factory to ensure that the highest standards of quality control are strictly adhered to and that lead times are closely monitored. This ensures a flexible and fast response to changing demands.

We also operate an in-house toolmaking division, which guarantees flexibility in design, rapid production and the continuity of our manufacturing process.

Our commitment to all round high standards of product excellence and quality is demonstrated by our accreditation to ISO9002 since 1991.

### Digital Range retained time & temperature memory

Similar in design to the analogue range but with the added benefit of a precision electronic controller which provides increased sensitivity. This range of two models allows user selectable time and temperature parameters to be retained in memory even after "power off". This is ideal for applications which demand repeatability e.g. quality control work. The timer is activated when the hob surface reaches selected temperature.

The accessory PT100 probe overrides the internal sensor allowing direct measurement and control of samples. The angled chemical resistant wipe clean membrane, has a bright display indicating measured temperature. Sand bath kits allow samples to be directly immersed in a dry and high temperature environment. The products accept standard laboratory retort rods which enable scaffolding to be constructed so that vessels can be heated without direct contact with the hot surface.

#### Features Include:

- Splash proof, chemical resistant control panel
- Highly visible, bright display to 1°C resolution
- Menu driven data entry
- Digital time and temperature settings retained in memory
- Accepts external accessory probe
- End of process alarm  
- heaters continue
- Maximum temperature 350°C



Cat. No.	HP1-1D	HP1-2D
Overall dims	305w x 285d x 160h mm	457w x 345d x 160h mm
Hotplate dims	305w x 240d mm	457w x 305d mm
Display and Timer	Digital	Digital
Timer settings	user pre-set time (variable 0 - 9999 minutes)	
Time cycle	timer activated automatically once set point temperature is reached	
Timed period complete	audible buzzer, "end" message	audible buzzer, "end" message
Temperature display/resolution	1°C	1°C
Temperature settings	ambient + 10°C - 350°C	ambient + 10°C - 350°C
Sensitivity @ 60°C	+0.5°C	+0.5°C
Uniformity @ 60°C	+0.5°C	+0.5°C
Heater, Watts	1000W	2000W
Safety	+5°C alarm setting with messaging, heaters cut off	
Retort Points	1	2

■ Accessories - see page 10

# HOTPLATES

## Analogue Range

These basic analogue hotplates are designed with a generous working area.

Thermostatically controlled, with illuminated on/off switch and heater indicator. The hob surface overlaps the body to ensure that no spillages enter the controls. The on/off switch has an IP rated clear boot to prevent the ingress of moisture.

The top surface is a solid aluminium plate, which has excellent thermal properties, ensuring even heat over the working area.

The products accept standard laboratory retort rods which enable scaffolding to be constructed so that vessels can be heated without direct contact with the hot surface.

### Features Include:

- Solid aluminum top plate with excellent thermal properties
- Choice of 3 sizes
- Featuring on/off switch and "heater on" indicator
- Hob overlaps base ensuring spillage's do not ingress into controls
- Easily converted into a sand bath with accessory kit for direct immersion of samples
- Accepts laboratory scaffolding
- Maximum surface temperature 350°C



Cat. No.	HP1-1	HP1-2	HP1-3
Max surface temp.	350°C	350°C	350°C
Overall, dims	305w x 240d x 150h mm	457w x 305d x 150h mm	686w x 305d x 150h mm
Hotplate dims	305w x 240d mm	457w x 305d mm	686w x 305d mm
Heater, Watts	1000W	2000W	3000W
Voltage	230V	230V	230V
Display	analogue	analogue	analogue
Retort Points	1	2	2

# HOTPLATES

Cat. No.	Description
SB1-1	Sand Bath Kit for HP1-1 Series
SB1-2	Sand Bath Kit for HP1-2 Series
SB1-3	Sand Bath Kit for HP1-3
EP-1	External Probe
EPH-1	Probe Holder
8614	10 x 500mm Aluminium Retort Rod

▲ HP1-1 shown with accessory sandbath kit SB1-1



# HOTPLATES

BLOCKHEATERS  
THERMUPLATE  
HOT 'N' COLD  
WET 'N' DRY  
HOTPLATES

# BLOCKHEATER HOTPLATES

## BH-DIG series, Digibloc

Digibloc provides a safe, dry and consistent method of heating using accessory aluminium heating blocks with excellent thermal conductivity. The microprocessor controller has the facility to retain a user adjustable, independent time and temperature combination making it ideally suited for a variety of purposes including heating tubes, micro tubes or vials, which demand repeatability.

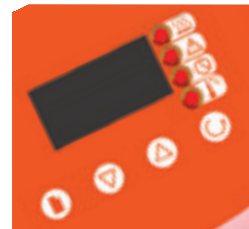
The unit consists of a low profile durable corrosion resistant stainless steel case with chemical resistant wipe clean sloping control panel with touch buttons to enter temperature and time values. Indicators show heating, alarm, time and set point modes in use. Supplied with Bloc extraction tool. The accessory probe overrides the internal sensor allowing direct measurement and control of Bloc.



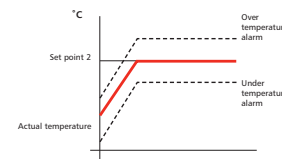
<b>Cat No.</b>	<b>BH-1/DIG</b>
<b>Temperature</b>	
Display/resolution	0.1°C
Range	ambient +5°C - 150°C
Sensitivity	±0.1°C @ 60°C
Uniformity well to well	±0.1°C @ 60°C
Over temp. alarm	+4°C with heater cut-off, indication
<b>Timer</b>	
Display/resolution	1 minute
Settings	variable 0 - 999 minutes
Time cycle	activated @ set point 2
Cycle end	audible buzzer and "end" message
<b>General</b>	
Heater, Watts	250W
Well dims	140w x 50d x 72h mm
Well capacity	1 or 2 ■
Overall, dims	200w x 295d x 85h mm
Voltage	100 - 230V

### Features Include:

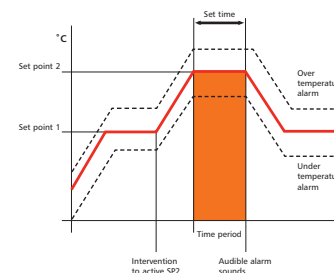
- Sensitivity: ±0.1°C @ 60°C
- Uniformity: ±0.1°C @ 60°C
- Temperature range: ambient +5°C - 150°C
- Clearly visible LED display suiting all lighting conditions
  - time or temperature display
  - digital PID control
  - menu driven data entry



- temperature display to 0.1° resolution up to 99°C
- indicators heating, alarm, time and set point
- Chemical resistant control panel
  - splash proof, wipe clean
- Two temperature set points
- Control options
  - temperature control only



- Process control with two temperatures and a time setting



- Wide choice of accessory Blocs suiting
  - micro tubes, tubes and vials.
- Accepts external accessory probe
  - in bloc temperature control

# HOTPLATES

## HHP series, small Hotplates

A range of small benchtop hotplates either thermostatic control or energy regulator control.

The top plate is solid aluminium with excellent thermal properties for even heat distribution. Consisting of a low profile durable corrosion resistant stainless steel case.

### Features Include:

- Easy to use
- Compact size
- Heater on indication
- Rugged design
- Complete with retort point



Cat No.	PHHP-1	HHP-1
<b>Temperature</b>		
Display/resolution	analogue dial	analogue dial
Range	ambient +10°C - 250°C	400°C maximum
Sensitivity	±10°C @ 100°C	-
Control	Thermostatic	Regulator
<b>General</b>		
Heater, Watts	400W	400W
Hotplate dims	140mm diameter	140mm diameter
Overall, dims	200w x 295d x 135h mm	200w x 295d x 135h mm
Voltage	230V	230V

# BLOCKHEATER HOTPLATES

## BH-B Series, Wet or Dry

Compact unique benchtop multi purpose hotplate, with a heating well suitable for water 'wet' or glass beads 'dry' heating. Suitable for a broad number of applications from incubation to sterilisation

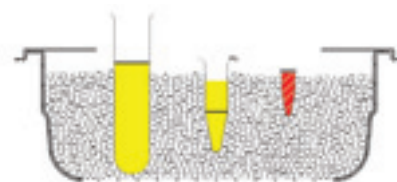
This unit consists of a low profile durable corrosion resistant stainless steel case with chemical resistant wipe clean sloping control panel with touch buttons to enter temperature and time values. Indicators show heating, alarm, time and set point modes in use.



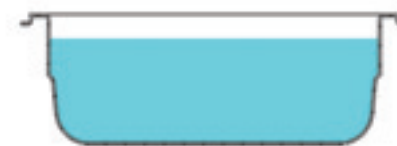
<b>Cat No.</b>	<b>BH-1B</b>
<b>Temperature</b>	
Display/resolution	0.1°C
Range	ambient +5°C - 180°C ■
Sensitivity, water	±0.5°C @ 60°C
Uniformity, water	±0.3°C @ 60°C
Over temp. alarm	+4°C, warning message, heater cut off, indication
<b>Timer</b>	
Display/resolution	1 minute
Settings	variable 0 - 999 minutes
Time cycle	activated @ set point 2
Cycle end	audible buzzer and "end" message
<b>General</b>	
Heater, Watts	250W
Safety	1
Internal dimensions	140w x 80d x 65h mm
Capacity, litres	0.5 l
External dimensions	200w x 295d x 95h mm
Voltage	100 - 230V

### Features Include:

- Sensitivity: ±0.5°C @ 60°C
- Uniformity: ±0.3°C @ 60°C
- Temperature range:
  - ambient +5°C - 100°C [water]
  - ambient +5°C - 180°C [glass beads]
- Clearly visible LED display suiting all lighting conditions
  - time or temperature display
  - digital PID control
  - menu driven data entry
  - temperature display to 0.1° resolution upto 99°C
  - indicators heating, alarm, time and set point
- Chemical resistant control panel
  - splash proof, wipe clean
- Two temperature set points
- Time and Temperature settings retained after power off
- Control options
  - temperature control only
  - temperature and time
  - process - two temperature set points
- Heating well
  - accessory glass beads allows any tube size to be immersed



- dry / wet heating



- incubation to sterilisation

## ACCESSORIES

EP-1	External Probe
BD-1	Glass beads

■ Maximum temperature for heating glass beads

## BH-T series, Thermubloc

The Thermubloc is a thermostatically controlled analogue block heater being easy to use and cost effective.

A low profile durable corrosion resistant stainless steel case with chemical resistant wipe clean sloping control panel featuring heater and mains indicators with rotary dial for temperature setting using reference thermometer. Supplied with Bloc extraction tool.



<b>Cat No.</b>	<b>BH-1T</b>
<b>Temperature</b>	
Display/resolution	analogue dial
Range	ambient +5°C - 120°C
Sensitivity	±0.5°C @ 60°C
Uniformity well to well	±0.5°C @ 60°C
<b>General</b>	
Heater, Watts	250W
Well dims	140w x 50d x 72h mm
Well capacity	1 or 2 ■
Overall, dims	200w x 295d x 85h mm
Voltage	100 - 230V

### Features Include:

- Sensitivity: ±0.5°C @ 60°C
- Uniformity: ±0.5°C @ 60°C
- Temperature range:
  - ambient +5°C - 120°C
- Easy to use

## ACCESSORIES

### Blocs

Cat. No.	Description
DBK-0	Plain Bloc
DBK-0.2	0.2ml micro tube Bloc 46 holes ■
DBK-0.5	0.5ml micro tube Bloc 16 holes ■
DBK-1.5	1.5ml micro tube Bloc 12 holes ■
DBK-2.0	2.0ml micro tube Bloc 16 holes ■
DBK-10	10mm x 32 Hole Bloc
DBK-12	12mm x 26 Hole Bloc
DBK-16	16mm x 18 Hole Bloc
DBK-19	19mm x 10 Hole Bloc
DBK-25	25mm x 10 Hole Bloc
DBK-50	50ml x 8 Hole Bloc

### Miscellaneous

BHL-1	Lid
EP-1	External Probe *

\* Not available for BH-1T.  
 ■ Two Blocs can be fitted in Heating well.

# BLOCKHEATER PLATES

## BH-M series, Thermuplate

This stylish and robust stainless steel unit is specially suited for skirted or unskirted 96-well format microplates, strips or micro tubes. With the ability to operate at two temperature set points and a timed interval. For simpler applications may be considered an alternative to a thermal cycler.

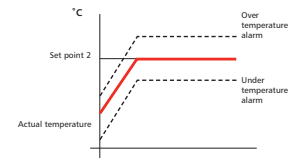
This unit consists of a low profile durable corrosion resistant stainless steel case with chemical resistant wipe clean sloping control panel with touch buttons to enter temperature and time values. Indicators show heating, alarm, time and set point modes in use.



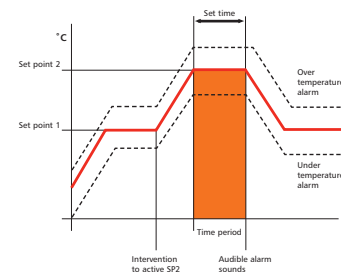
<b>Cat No.</b>	<b>BH-1M</b>
<b>Temperature</b>	
Display/resolution	0.1°C
Range	ambient +5°C - 100°C
Sensitivity	±0.1°C @ 60°C
Uniformity well to well	±0.1°C @ 60°C
Over temp. alarm	+4°C with heater cut-off, indication
<b>Timer</b>	
Display/resolution	1 minute
Settings	variable 0 - 999 minutes
Time cycle	activated @ set point 2
Cycle end	audible buzzer and "end" message
<b>General</b>	
Heater, Watts	250W
Capacity, options	12 x thin wall strips 8 x 0.2ml micro tubes 'v' well 1 x 96 'v' well, microplate 0.2ml - skirted full or mini 1 x 96 'v' well, microplate 0.2ml - unskirted 96 x thin wall 0.2ml micro tubes 'v' well
Overall, dims	200w x 295d x 95h mm
Voltage	100 - 230V

### Features Include:

- Sensitivity: ±0.1°C @ 60°C
- Uniformity: ±0.1°C @ 60°C
- Temperature range: ambient +5°C - 100°C
- Clearly visible LED display suiting all lighting conditions
  - time or temperature display
  - digital PID control
  - menu driven data entry
  - temperature display to 0.1° resolution
  - indicators heating, alarm, time and set point
- Chemical resistant control panel
  - splash proof, wipe clean
- Time and Temperature settings retained after power off
- Control options
  - temperature control only



- Process control with two temperatures and a time setting



## BH-P series, Hot 'n' Cold

Compact design packed with technology providing a platform for heating and cooling. Accommodating 0.2ml micro tubes, the unit is easy to operate with two temperature set points and a timed interval.

This unit consists of a low profile durable corrosion resistant stainless steel case with chemical resistant wipe clean sloping control panel with touch buttons to enter temperature and time values. Indicators show heating, alarm, time and set point modes in use.



### Features Include:

- Temperature range: 4 - 100°C
- Clearly visible LED display suiting all lighting conditions
  - time or temperature display
  - digital PID control
  - menu driven data entry
  - temperature display to 0.1° resolution
  - indicators heating, alarm, time and set point
- Chemical resistant control panel
  - splash proof, wipe clean
- Time and Temperature settings retained after power off
- Control options
  - temperature control only
  - temperature and time
  - process - two temperature set points

<b>Cat No.</b>	<b>BH-1P02</b>
<b>Temperature</b>	
Display/resolution	0.1°C
Range	4°C - 100°C
Minimum	23°C below ambient
Sensitivity @ 4 - 40°C	±0.5°C
Sensitivity @ 41 - 100°C	±2°C
Over temp. alarm	+4°C with heater cut-off, indication
Under temp. alarm	-4°C, warning message, chiller off, indication
<b>Timer</b>	
Display/resolution	1 minute
Settings	variable 0 - 999 minutes
Time cycle	activated @ set point 2
Cycle end	audible buzzer and "end" message
<b>General</b>	
Heater, Watts	250W
Capacity	2 x thin wall strips 8 x 0.2ml micro tubes 'v' well
Capacity	20 x thin wall 0.2ml micro tubes 'v' well
Overall, dims	200w x 295d x 95h mm
Voltage	100 - 230V

N.B. 0.5ml micro tube version is available