

## Features

- Programmable Precision Temperature Control from -120 °C to 400 °C
- Low Surface Temperature Gradients
- Optional Outer and Inner Covers Available
- Thin Design for Easy Probe Station or Optical Microscope Integration
- Electrically Floating Plate Surface with Grounding Points
- Vacuum Chamber Compatible Version Available
- Controlled Fast Heating and Cooling Rate



## Technical Specifications

|                                  |  |
|----------------------------------|--|
| Temperature Resolution           | 0.01 °C with mK1000                                      |
| Temperature Stability            | ±0.01 °C at 100 °C with mK1000                           |
| Temperature Uniformity           | ±0.1 °C per cm (better temperature uniformity available) |
| Minimum Heating and Cooling Rate | ±0.1 °C per hour   |
| Temperature Control Method       | Switching PID (PID with Linear Variable DC optional)     |
| Temperature Control Sensor       | 100 Ω Platinum RTD                                       |
| Surface Flatness                 | 10 μm at ambient temperature                             |

## Model Information

| Size          | Model <sup>1,2</sup> | Sample Area     | Temperature Range <sup>3</sup> | Maximum Heating Rate         |
|---------------|----------------------|-----------------|--------------------------------|------------------------------|
| 100 mm square | HCP204SC             | 101 mm x 101 mm | -120 °C to 200 °C              | +120 °C per minute at 100 °C |
|               | HCP304SC             |                 | -120 °C to 310 °C              |                              |
|               | HCP404SC             |                 | -120 °C to 400 °C              |                              |
| 150 mm square | HCP206SC             | 152 mm x 152 mm | -100 °C to 200 °C              | +90 °C per minute at 100 °C  |
|               | HCP306SC             |                 | -100 °C to 310 °C              |                              |
|               | HCP406SC             |                 | -100 °C to 400 °C              |                              |
| 200 mm Square | HCP208SC             | 203 mm x 203 mm | -80 °C to 200 °C               | +45 °C per minute at 100 °C  |
|               | HCP308SC             |                 | -80 °C to 310 °C               |                              |
|               | HCP408SC             |                 | -80 °C to 400 °C               |                              |
| 300 mm Square | HCP20CSC             | 304 mm x 304 mm | -60 °C to 200 °C               | +30 °C per minute at 100 °C  |
|               | HCP30CSC             |                 | -60 °C to 310 °C               |                              |
|               | HCP40CSC             |                 | -60 °C to 400 °C               |                              |

<sup>1</sup> Options for Swagelok Compression Fittings available

<sup>2</sup> Options for Lift Pin Access Holes available

<sup>3</sup> Below ambient operation requires optional cooling accessory.

## Ordering Information – 100 mm Plates

| Part Number      | Description   |
|------------------|---|
| HCP204SC-mK1000A | HCP204SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP204SC-mK1000U | HCP204SC, hot and cold plate with mK1000, 230V, software included                 |
| HCP304SC-mK1000A | HCP304SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP304SC-mK1000U | HCP304SC, hot and cold plate with mK1000, 230V, software included                 |
| HCP404SC-mK1000A | HCP404SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP404SC-mK1000U | HCP404SC, hot and cold plate with mK1000, 230V, software included                 |
| C-A4-01          | Cover for HCP204SC/HCP304SC/HCP404SC, 94 mm x 94 mm viewing window                |
| IC-A4-01         | 100 mm inner lid for better temperature uniformity for HCP204SC/HCP304SC/HCP404SC |

## Ordering Information – 150 mm Plates

| Part Number      | Description   |
|------------------|---|
| HCP206SC-mK1000A | HCP206SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP206SC-mK1000U | HCP206SC, hot and cold plate with mK1000, 230V, software included                 |
| HCP306SC-mK1000A | HCP306SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP306SC-mK1000U | HCP306SC, hot and cold plate with mK1000, 230V, software included                 |
| HCP406SC-mK1000A | HCP406SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP406SC-mK1000U | HCP406SC, hot and cold plate with mK1000, 230V, software included                 |
| C-A6-01          | Cover for HCP206SC/HCP306SC/HCP406SC, 145 mm x 145 mm viewing window              |
| IC-A6-01         | 150 mm inner lid for better temperature uniformity for HCP206SC/HCP306SC/HCP406SC |

## Ordering Information – 200 mm Plates

| Part Number      | Description   |
|------------------|---|
| HCP208SC-mK1000A | HCP208SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP208SC-mK1000U | HCP208SC, hot and cold plate with mK1000, 230V, software included                 |
| HCP308SC-mK1000A | HCP308SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP308SC-mK1000U | HCP308SC, hot and cold plate with mK1000, 230V, software included                 |
| HCP408SC-mK1000A | HCP408SC, hot and cold plate with mK1000, 115V, software included                 |
| HCP408SC-mK1000U | HCP408SC, hot and cold plate with mK1000, 230V, software included                 |
| C-A8-01          | Cover for HCP208SC/HCP308SC/HCP408SC, 196 mm x 196 mm viewing window              |
| IC-A8-01         | 200 mm inner lid for better temperature uniformity for HCP208SC/HCP308SC/HCP408SC |

## Ordering Information – 300 mm Plates

| Part Number      | Description   |
|------------------|---|
| HCP20CSC-mK1000A | HCP20CSC, hot and cold plate with mK1000, 115V, software included                 |
| HCP20CSC-mK1000U | HCP20CSC, hot and cold plate with mK1000, 230V, software included                 |
| HCP30CSC-mK1000A | HCP30CSC, hot and cold plate with mK1000, 115V, software included                 |
| HCP30CSC-mK1000U | HCP30CSC, hot and cold plate with mK1000, 230V, software included                 |
| HCP40CSC-mK1000A | HCP40CSC, hot and cold plate with mK1000, 115V, software included                 |
| HCP40CSC-mK1000U | HCP40CSC, hot and cold plate with mK1000, 230V, software included                 |
| C-AC-01          | Cover for HCP20CSC/HCP30CSC/HCP40CSC, 297 mm x 297 mm viewing window              |
| IC-AC-01         | 300 mm inner lid for better temperature uniformity for HCP20CSC/HCP30CSC/HCP40CSC |

## Accessory Ordering Information

| Accessories    | Description   |
|----------------|---|
| mK1000 Options | Please refer to the mK1000 Temperature Controller section for mK1000 controller options (e.g. IEEE-mK1000: IEEE 488 communication port) |
| LN2-SYS        | Liquid nitrogen cooling accessory. Please refer to the LN2-SYS section for selections of liquid nitrogen cooling accessories            |
| WPC3A/WPC3U    | 115V or 230V circulation water pump system for rapid sample chamber cooling to as low as 5° C   |
| WP115F/WP230F  | 115V or 230V circulation water pump for frame cooling   |

## Physical Dimensions – 100 mm Square Plate

