Hot Chuck

For measurement under a wide range of precisely controlled temperature.



Application

Provide a hot/cool chuck.

Features

- Low noise 24V DC heating cartridge, less EMI, suitable for low noise measurement.
- Safety 24V low voltage DC power output. NO worry about electric shock.
- Wide temperature range From room temperature to 200 °C. Larger range available upon request.
- Accurate ±0.1% accuracy controller; IEC 60751 F0.15 standard PT100 temperature sensor.
- Stable Proactive functions of controller suppress overshoot and provide fast and stable control.
- Uniform Less than ± 0.5 °C of target temperature @ 6 inch chuck.

Specifications

Chuck

| Diameter | 4~8 inch; larger dia. available upon request. |
|-----------|--|
| Material | Copper |
| Coating | Type II gold plated |
| Planarity | ≤10 μm@25 ˚C ≤30 μm@200 ˚C ≤40 μm@300 ˚C |

Hot Chuck

Chuck

| Sample holding | Vacuum ring pattern. Others available upon request. |
|------------------|---|
| Vacuum actuation | Vacuum pump. |
| Heat isolation | PTFE |

Temperature control

| Range | Room temperature ~ 200 °C |
|-------------------|--|
| Resolution | 0.1 °C |
| Accuracy | ±0.1% of reading digits |
| Uniformity | Room temperature $^{\sim}$ 200 $^{\circ}\mathrm{C}$ |
| Heating | DC heating cartridge |
| Cooling | Water@RT |
| Sensor | PT100 temperature sensor; IST or Jumo; IEC 60751 F0.15 standard. |
| Temp. rise time | 20 min (RT~200 ℃) |
| Temp. cooing time | 5 min (200 ℃ ~RT), RT water cooler |

Electrical performance

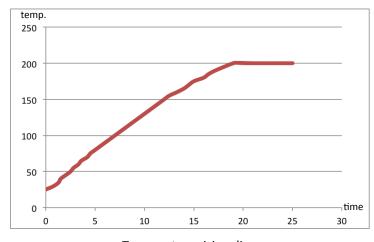
| Probe leakage current | Room temperature ~ 200 °C |
|-----------------------|--|
| Chuck leakage current | 0.1 °C |
| Chuck as test port | Can be connected to test instrument with optional cable assemblies |

^{*} Tested on a IPS probe station with Femtoprobe.

Power

| Input | 220V or 110V AC |
|--------|-----------------|
| Output | 24V DC |

Specifications and designs are subject to change without notice.



Temperature rising diagram

Hot Chuck

Pictures









Ordering Information

CK-4IN-RT-200 4 inch chuck with temperature controller and cable assemblies.
CK-6IN-RT-200 6 inch chuck with temperature controller and cable assemblies.
CK-8IN-RT-200 8 inch chuck with temperature controller and cable assemblies.
WC-RT Water cooled.

WC-0530 Water cooler, water temperature can be controlled from 5 to 30 °C.

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KeyFactor Systems, Inc.

www.keyfactorsystems.com sales@keyfactorsystems.com technical-support@keyfactorsystems.com

U.S.

Add: 8825 53 AVE Elmhurst, New York, United States.

Tel: +1(347) 994-9951

China

Add: 5th FL, Sohovark, Industrial Rd. South, SSL, Dongguan.

Tel: +86(769)2223-8503 Fax: +86(769)2223-0701