

Crystal Ovens

Many of widely used nonlinear crystals are susceptible to ambient humidity, for example KD*P, BBO, LBO. Protective coatings applied to the surface can reduce degradation to some extent only. To improve the protection of surfaces of the crystals from the degradation it is desirable to keep the crystals at higher than ambient temperature, which helps avoid condensation on the crystal surfaces.

In addition, if the crystal is used for harmonics generation, the phase-matching angle depends on crystal temperature. For example, the output power of second harmonics generator based on KD*P crystal can decrease by 50 % if the crystal temperature changes just by one degree, hence for good laser stability precise crystal temperature stabilization is necessary.

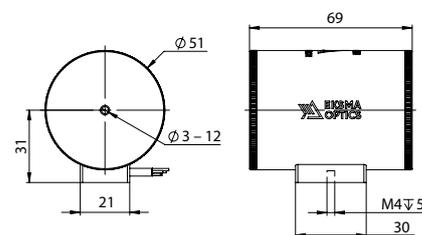
HIGH-TEMPERATURE CRYSTAL OVEN – HP200

Features

- Temperature range: 25 – 220 °C
- Suitable for larger crystals:
 - Aperture (max): 12 × 12 mm
 - Length (max): 30 mm
- High long-term stability
- High temperature homogeneity

Heatpoint series HP200 oven is designed to ensure precise long-term temperature stabilization for temperature-sensitive optical elements such as LBO, DKDP, and CLBO nonlinear crystals. HP200 allows temperature fine-tuning in 0.1 °C steps for operation from room temperature (~25 °C) up to 220 °C. To achieve the best results, we recommend the complete Heatpoint high-temperature kit - HP200 oven and HPC thermo-controller. HPC has an OLED display and a knob, allowing easy control of the most frequently tunable parameters and USB-C and CAN connections for more advanced temperature monitoring. The combination of HP200 and HPC also ensures long-term stability of ±0.03 °C, making HP200 one of the market's most precise and stable temperature-controlled ovens.

We also offer HP200 ovens in sealed design (with anti-reflection coated optical windows) under request.



HP200 dimensions

HP200 Crystal Oven with HPC Thermocontroller

Specifications

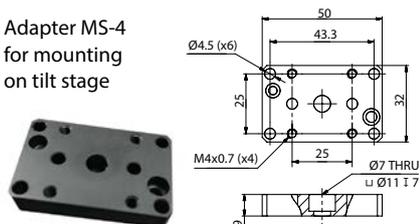
Model	HP200
Crystal length (max)	30 mm
Crystal aperture (max)	12 × 12 mm
Temperature tuning range	25 – 220 °C
Temperature tuning step	0.1 °C (knob) 0.001 °C (remote)
Long-term stability	± 0.03 °C ¹⁾
Temperature ramp rate	1 – 10 °C/min ²⁾
Powering requirements	24 V DC
Power consumption	< 60 W
Oven-to-thermocontroller connector	Micro-Fit 3.0, Dual Row, 6 Circuits ("Hi")
Oven cable length	0.5 m
Oven dimensions	Ø50.8 × 65 mm
Price, EUR	950

¹⁾ In enclosed environment.

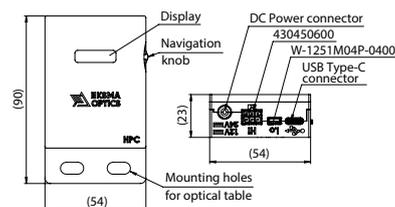
²⁾ By default, limited to 4 °C/min.

Related products

Adapter MS-4 for mounting on tilt stage



HPC Thermocontroller



Description	Model	Price, EUR
Thermocontroller with power supply (24 V) for HP200 Oven	HPC	635