

HPX Series Inert Hotplate

The HPX Series of inert hotplates have been designed for use in the most challenging ultratrace applications such as those found in geochemistry and the semiconductor industry. However, their freedom from metal contribution and excellent performance makes them ideally suited for the digestion and evaporation of samples in any trace metals lab. Manufactured from low porosity graphite and sealed with a Teflon™ PFA coating, HPX hotplates protect critical samples and are fully cleanroom compatible. With excellent temperature uniformity, extensive electrical safety design features and third party CE compliance testing by TÜV SÜD America, the HPX Series ensures outstanding performance and safe operation.

Design Features

The HPX Series comprises the HPX-100 and the HPX-200. The use of premium, ISO-molded, low porosity graphite for the heating surface gives a much smoother surface than extruded graphite which is used in other inert hotplates. ISO-molded graphite, although more expensive, is pressure formed from very fine particles (approximately 50x smaller) than used in extruded graphite, which gives it better thermal conductivity and allows it to be machined to give a much smoother surface. This in turn allows for a higher integrity PFA coating, eliminating the possibility of incomplete coverage due to fissures in the graphite. Combined with the use of genuine Chemours Teflon™ PFA coating, this ensures a long lifetime for the heating surface.

The HPX-100 and HPX-200 feature three and four heater cartridges respectively – more than found in other hotplates. This gives the HPX Series superior temperature uniformity (+/- 2°C at 150°C) in actual use. Both models are operated by a digital PID temperature controller with programmable timer. The controller also includes a user calibration function for compliant environments (e.g. cGMP). Additional features that are standard on the HPX include a rim around the heating surface to prevent vials from falling off and to contain spills, PTFE side guards on all sides to protect users from hot surfaces, and PTFE underside heat protection to protect the fume hood bench from heat damage. The HPX is available in a range of voltages and most versions are capable of heating to 240°C (see table on next page for details). PFA coated graphite heating blocks to fit commonly used SavilleX PFA vials are also available.



HPX-200 Hotplate



HPX-100



HPX-200

Electronic Design and Safety

Savillex designed the HPX Series with the safest and most advanced electronics of any hotplate available on the market. Safety features include independent high-limit temperature protection with a user-resettable latching overheat protection circuit. This circuit trips should an overheat event occur, and alerts the user to a potential problem. The electronics are fitted with an EMI/RFI filter to assure electromagnetic compatibility. An electric mains fuse provides over current protection and an open sensor detection circuit prevents an overheat condition due to a faulty sensor. The HPX Series has been tested by TÜV SÜD USA, a nationally recognized laboratory for safety testing and certification services. The safety features designed into the HPX Series demonstrates Savillex's commitment to providing users with the safest, longest lasting, most advanced hotplates available.

Serviceability

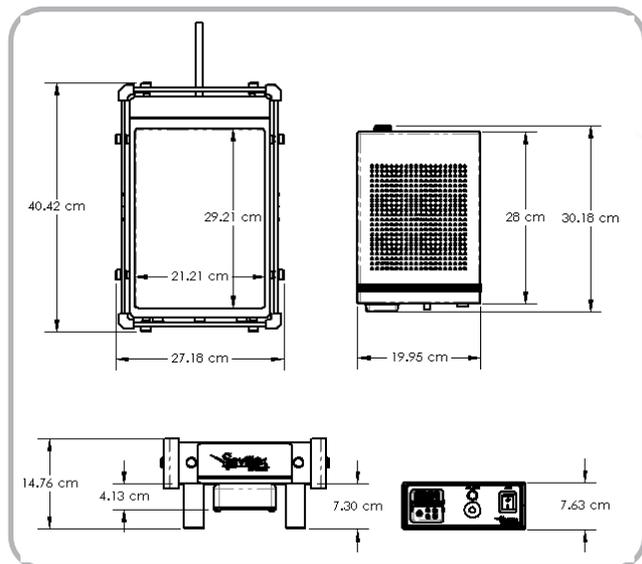
Since it is difficult to return hotplates to the manufacturer for service, the HPX Series was designed to be user repairable as much as possible. The HPX controller can be disconnected and exchanged should it fail. Other inert hotplates have to be returned to the manufacturer as a complete unit should the controller fail. The HPX also features a user resettable latching overheat circuit which eliminates the need for a single use thermal fuse. Single use thermal fuses can only be replaced at the manufacturer's facility should an over temperature situation occur.

System Components

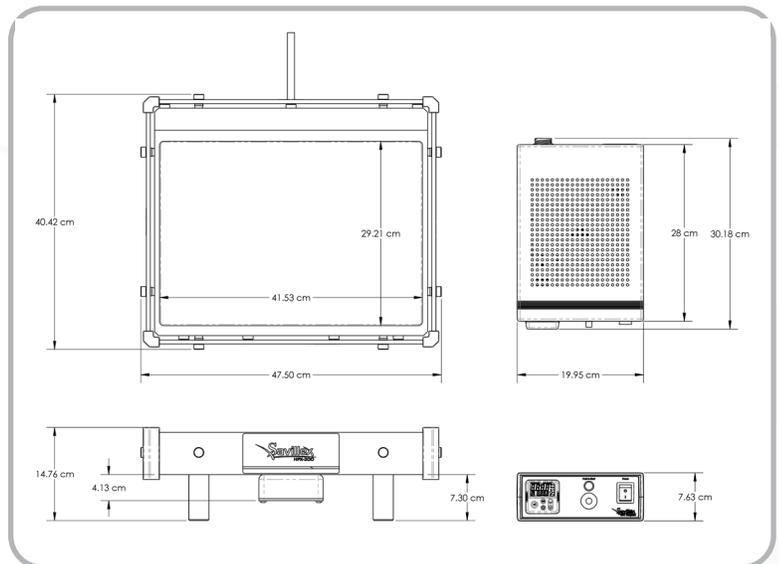
The HPX hotplates include the digital PID temperature controller, rim around the heating surface, PTFE side guards on all sides, and PTFE underside heat protection.

General Specifications

Feature	HPX-100 Specification	HPX-200 Specification
Material	ISO-molded graphite with Teflon™ PFA coating	ISO-molded graphite with Teflon™ PFA coating
Heated Working Surface	292 mm x 212 mm (11.5 in x 8.4 in)	415 mm x 292 mm (16.4 in x 11.5 in)
Temperature Uniformity	+/- 2°C @ 150°C	+/- 2°C @ 150°C
Power Cord Length	1.83 m (6.0 ft) hotplate to control unit 2 m (6.6 ft) control unit to outlet	1.83 m (6.0 ft) hotplate to control unit 2 m (6.6 ft) control unit to outlet
Dimensions (footprint)	Length: 40.4 cm (15.9 in) Width: 27.2 cm (10.7 in) Height: 14.8 cm (5.8 in)	Length: 40.4 cm (15.9 in) Width: 47.5 cm (18.7 in) Height: 14.8 cm (5.8 in)
Shipping Weight	14.5 kg (32 lbs)	25.0 kg (55 lbs)
Certification	Independently CE tested and RoHS compliant	Independently CE tested and RoHS compliant



HPX-100 Dimensions



HPX-200 Dimensions

Ordering Information and Electrical Specifications

Model	Part #	Voltage	Plug Style	Image	Amperage	Watts	Maximum Temperature
HPX-100	550-100-100	100 VAC +/- 10% 50/60 Hz, 1 Ø	NEMA 5-15P		12.5	1250	200°C
HPX-100	550-100-120	120 VAC +/- 10% 50/60 Hz, 1 Ø	NEMA 5-15P		12.5	1500	240°C
HPX-100	550-100-230	230 VAC +/- 10% 50/60 Hz, 1 Ø	CEE 7/7		7.8	1800	240°C
HPX-100 UK 3-pin fused plug	550-100-230UK	230 VAC +/- 10% 50/60 Hz, 1 Ø	UK BS 1363A		7.8	1800	240°C
HPX-100	550-100-230CN	230 VAC +/- 10% 50/60 Hz, 1 Ø	GB2099 (Type I) 16 Amp		7.8	1800	240°C
HPX-200	550-200-120	120 VAC +/- 10% 50/60 Hz, 1 Ø	NEMA 5-15P		12.5	1500	200°C
HPX-200 North America	550-200-230NA	230 VAC +/- 10% 50/60 Hz, 1 Ø	NEMA 6-15P		10.4	2400	240°C
HPX-200	550-200-230	230 VAC +/- 10% 50/60 Hz, 1 Ø	CEE 7/7		10.4	2400	240°C
HPX-200 UK 3-pin fused plug	550-200-230UK	230 VAC +/- 10% 50/60 Hz, 1 Ø	UK BS 1363A		10.4	2400	240°C
HPX-200	550-200-230CN	230 VAC +/- 10% 50/60 Hz, 1 Ø	GB2099 (Type I) 16 Amp		10.4	2400	240°C

To minimize line voltage changes, it is recommended to install the hotplate only in premises having a service current capacity equal to or greater than 100 A per phase.

Optional Accessories

Model	Part #	Accepts Savillex PFA Vials	Dimensions
17 Position Heating Block	550-23-17	5 or 7 mL	L = 207 mm (8.2 in) W = 99 mm (3.9 in) H = 15 mm (0.6 in) Hole diameter = 23 mm (0.9 in)
8 Position Heating Block	550-31-08	15, 22, 30 or 60 mL	L = 207 mm (8.2 in) W = 99 mm (3.9 in) H = 19 mm (0.8 in) Hole diameter = 31 mm (1.2 in)

Note: Any combination of three of the above blocks can fit on the HPX-100 and any six of the above can fit on the HPX-200.



17 Position Heating Block



8 Position Heating Block

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