

Series 200 HPLC Column Ovens

Three options to meet your specific needs



Precision temperature control improves retention time

In many HPLC analyses, variations in column temperature can cause significant changes in retention times, making qualitative analysis difficult and affecting the precision of quantitative measurements. By precisely and accurately controlling the temperature of the mobile phase and the column, optimal results can be achieved. By maintaining the column temperature at a stable set point, more standardized results can be obtained, permitting better day-to-day and lab-to-lab comparison of results. In addition, elevated temperatures can be used in many applications to decrease mobile-phase viscosity while increasing mass transfer and sample solubility, resulting in better resolution and/or increased speed of analysis. Finally, subambient temperature capabilities are helpful in many biomolecular analyses and in the analysis of some chiral compounds.

PerkinElmer offers three versions of the Series 200 Column Oven to meet your specific needs: heat-only, Peltier (heat and cool), and a Peltier unit with a built-in column selection/switching valve.

The PerkinElmer Series 200 family of column ovens controls the mobile phase and sample temperature before they enter the column via a built-in preheater. This eliminates thermal gradients across the column, resulting in better column performance and precise retention times. All heating and cooling (Peltier units only) is performed electrically, permitting subambient temperatures as low as 5 °C without coolant or refrigerants.

The Series 200 Oven/Selector permits automated switching of up to six HPLC columns. This feature is extremely beneficial for method development applications and in multi-user/multi-method labs.

Key Benefits

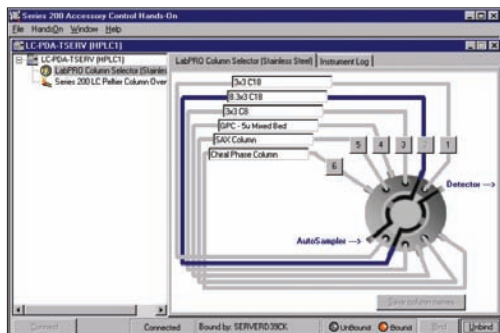
- ▶ All-electronic design permits wide operating range and leak alarm – Peltier units do not require refrigerants or coolants
- ▶ Peltier oven/selector unit includes remote-control software, permitting full oven and selector-valve control in real-time
- ▶ Integrated solvent pre-heater/chiller minimizes temperature gradients
- ▶ Large, easily-accessible column compartment holds even 30-cm column formats
- ▶ Fully-stackable design integrates into complete Series 200 HPLC System

The Peltier oven/column-select model includes an easy-to-use software-control package. This allows full remote control of oven temperature and the column-selection valve. Temperature and column selection can be programmed within a single method or sequence of runs – allowing full, unattended operation.

The Series 200 family of ovens is designed to meet even the most demanding requirements. Microprocessor-based control maintains the set temperature, with 0.2°C stability, across the entire temperature range. The LED display continuously shows the current “actual” temperature and the user selected “set” temperature. The unique, easily-accessed column compartment can accommodate multiple HPLC columns – including 30-cm columns such as those used in GPC analyses. The Series 200 ovens also contain an integrated “leak-detection” system, alerting the users to the smallest of leaks.

Stackable unit saves bench space

Because the column compartment is easily accessed directly from the front of the unit without having to remove a top cover, it can be stacked with other instruments in the Series 200 family, preserving valuable bench space.



The Series 200 Peltier Ovens are fully-controllable by the Remote Control Software, allowing automated temperature programming and switching of the optional column-selection valve.

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Specifications

Operating Range (Heat-only units)	30 °C to 90 °C
Operating Range (Peltier units)	5 °C to 90 °C (max 15 °C below ambient)
Operating Range (Oven/col select units)	7 °C to 90 °C (max 15 °C below ambient)
Recommended Flow Range	Up to 5 mL/min
Temperature Accuracy	± 1 °C over entire range*
Temperature Stability	±0.2 °C
Temperature Repeatability	± 1 °C
Heating Rate (Heat-only units)	30 min to setpoint at 2 mL/min
Heating / Cooling Rate (Peltier units)	30 min to 10 °C or 60 °C at 2 mL/min*
Temperature Ramp	Up to 5 °C/min*
Safety Cutoff	Leakage sensor
Stabilizing Time	30 min after reaching setpoint
Column-Selection Valve Capacity	6 switching positions

Power Requirements

Power Consumption	120 Watts
Line Voltage Range (Heat-only units)	120 or 220/240 VAC 50/60 Hz ±10% (unit set to 220 VAC at factory)
Line Voltage Range (Peltier units)	115 or 230 VAC 50/60 Hz ±10% (unit set to 230 VAC at factory)

Operating Conditions

Ambient Temperature	10 °C to 35 °C
Ambient Humidity	20 to 80% (without condensation)
Altitude	0 to 2000 m

Physical

Dimensions (HxWxD)	16 x 34 x 48 cm
Weight	9 Kg

Ordering Information

Part Number	Description
N2601581	Series 200 Heat-Only Column Oven (100-240 VAC)
N2601580	Series 200 Peltier Column Oven (100-240 VAC)
N2601579	Series 200 Peltier Column Oven with Selector Valve (100-240 VAC)

* With ambient temperatures between 15°C and 20°C. Higher ambient temperatures will impact low-end Peltier cooling rate and range.