

TL-105 HPLC Column Heater

Focusing on **solutions** to meet your needs.

Timberline Instruments
1880 S. Flatiron Ct., Unit G
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800-777-5996
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Features and Benefits:

- Built-in heat exchanger preheats the mobile phase reducing temperature gradients
- Extra-large heated cavity accommodates multiple analytical or semi-preparative columns
- Accommodates either an internal or external injection valve
- Easy access to heated cavity



Features and Benefits:

The Timberline TL-105 is a multi-feature HPLC column heater designed to meet the needs of busy chromatography labs. The TL-105's microprocessor controlled heating creates stable and accurate temperature control to provide reproducible retention times and stable baselines for temperature sensitive detectors such as refractometers, electrochemical, and conductivity. Increasing column temperatures reduces peak tailing due to surface silanol interactions, improves efficiency, reduces backpressure, and prevents column contamination.

The TL-105 benchtop column heater utilizes our proprietary heat exchanger technology which reduces temperature gradients within the column, improving chromatographic efficiency. The column heater can control temperature from ambient +5 to 100°C. High temperature versions to control up to 150°C are available. The standard configuration heats flows up to 5ml/min. The flow rate range can be extended to 10 ml/min with a pre-heater substitution. An optional injection or switching valve can be mounted in the heated compartment.

The column, preheater, and installed valves in the heated cavity are easily accessed through an insulated cover held in place on the top of the unit with thumbscrews. Inadvertent solvent leaks are directed away from heater electronics via a drain tube in the heated compartment connected to a bulkhead fitting on back of unit.

For higher flow rates, Timberline offers a TL-105-D Column Heater with Dual Temperature Control, which allows for independent temperature control of both the column and the mobile phase.

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Internal view of TL-105 Column Heater

The extra-large heated cavity accommodates multiple analytical or semi-preparative HPLC columns that can be stacked into the 2.75" (70mm) deep cavity. Heated cavities are available from 17.5" (44.5cm) to 23.0" (58.5cm) in length. A built-in heat exchanger preheats the mobile phase and reduces temperature gradients within the column, improving chromatographic efficiency. In the unlikely event of a control failure, a thermal fuse cuts power to the heater to safeguard the heater, column and laboratory.

Specifications

Case Dimensions TL-105 and TL-105-HT	8"W x 20.0"L x 5"H
Case Dimensions TL-105L and TL-105L-HT	8"W x 25.5"L x 5"H
Heated Cavity Dimensions TL-105 and TL-105-HT	3.5W x 17.5"L x 2.75"H (89mm x 44mm x 70mm)
Heated Cavity Dimensions TL-105L and TL-105L-HT	3.5W x 23.0"L x 2.75"H (89mm x 584mm x 70mm)
Inlet Pre-Heater	0.0625"OD x 0.010"ID SS coil cast in tin
Flow Rate with standard configuration (HX-101)	Up to 5 ml/min
Flow Rate with HX-102 heat exchanger	Up to 10 ml/min
Heating Elements	Etched Foil/Silicon, 150W
Temperature Range TL-105 and TL-105L	5°C above ambient to 100°C
Temperature Range TL-105-HT and TL-105L-HT	5°C above ambient to 160°C
Temperature Stability	+/- 0.1°C
Operating Voltage	120 VAC or 240 VAC (Must be specified by customer)

Order Specifications

TL-105 Column Heaters	Catalog Number
TL-105 Column Heater, 120VAC	2105-1
TL-105 Column Heater, 240VAC	2105-2
TL-105 Long Column Heater, 120VAC	2115-1
TL-105 Long Column Heater, 240VAC	2115-2
TL-105-HT (High Temp) Column Heater, 120VAC	2125-1
TL-105-HT (High Temp) Column Heater, 240VAC	2125-2
TL-105-HT (High Temp) Long Column Heater, 120VAC	2125-2
TL-105-HT (High Temp) Long Column Heater, 240VAC	2135-2
Heat Exchangers	Catalog Number
HX-101, SS, 1/16" OD x 0.01"ID	2201
HX-102, SS, 1/16" OD x 0.02"ID	2201