

SH-27B, SH-27G and SF-28

In-line Solution Heaters

Quiet Temperature Control for Flowing Solutions



- Quiet operation
- Ambient to 50°C
- Fast or slow flow
- Designed to work with the TC-324B and TC-344B Temperature Controllers

In-line solution heating is the simplest and most effective method of warming perfusion solutions. The heater is connected to the chamber with a short length of tubing such that the warmed perfusate flows directly into the chamber bath. Depending on bath volume and other factors, in-line solution heating by itself may be sufficient for many applications.

The model SH-27B will accommodate flow rates up to 10 ml/min while the model SF-28 is designed for slower flow rates of 2 ml/min or less.

Both models feature a straight flow path for easy cleaning. The stainless steel flow channel in both models may be lined with polyethylene tubing (PE-50) when exposing compounds to metal is a problem.

These In-line Solution Heaters require either the TC-324B single or the TC-344B dual channel temperature controller. See pages 108 and 109.

Each heater is supplied with a thermistor cable assembly (p/n TA-29) which allows for monitoring the actual bath temperature during use (T2 output on heater controllers TC-324B/TC-344B).

Specifications

Heater Resistance	10 Ω
Voltage Requirement	Variable to 12 V max.
Maximum Temperature	50°C
Internal Dead Volume	262 μl
Perfusion Lines	Type 316 Stainless Steel 0.083 in OD x 0.067 in ID, 2.1 mm x 1.70 mm
Maximum Flow Rate at 37°C:	
SF-28	2 ml/min
SH-27B/SH-27G	10 ml/min
Temperature of 37°C can be maintained at ±1°C under following conditions: a) Solution temperature at input (nominally 21°C) varies no more than ±10%; b) Solution flow rate varies no more than 25%	
Physical Dimensions:	
Body (D x L)	12.5 mm x 12.5 cm
Cable Length	1.9 m
Warranty	One year

Order #	Model	Product
W4 64-0103	SF-28	Slow Flow Solution Heater
W4 64-0102	SH-27B	Solution Heater
W4 64-1503	SH-27G	Solution Heater with Banana Connectors

Accessories and Replacement Parts

W4 64-0107	TA-29	Replacement Cable with Bead Thermistor
W4 64-0108	TA-30	Replacement Cable with Glass Thermistor
W4 64-0100	TC-324B	Heater Controller, Single
W4 64-0101	TC-344B	Heater Controller, Dual