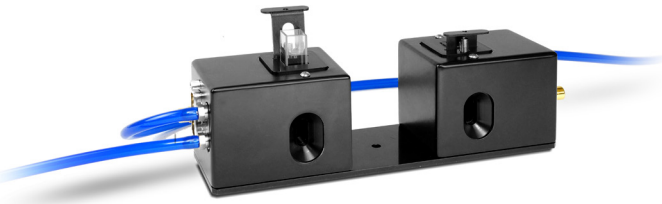


Peltier-Controlled Cuvette Holders for UV-Vis Spectrophotometers – Experiments Under Tightly Controlled Temperature Conditions



FEATURES

- Fast temperature response
- Precision temperature control
- Variable built-in magnetic stirring
- Single- and dual-beam configuration

The new series of PIKE Technologies Peltier accessories includes liquid-cooled cuvette holders, two-channel Temperature Controller and optional Liquid Recirculator. The complete PIKE Peltier Cuvette Accessory requires Peltier cuvette holders, Temperature Controller and Liquid Recirculator. With its efficient design, the Peltier Accessory offers precision temperature control and highly responsive ramping.

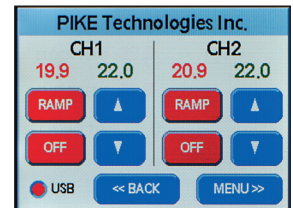
The cuvette holder can be used with single- and dual-beam spectrophotometers, and is offered in single or twin configurations. Each temperature-controlled cuvette holder features an efficient heat exchange design, variable speed magnetic stirrers, and a thermoelectric cooler based on Peltier principle. Liquid flow is used to remove excess heat from Peltier elements.

The Peltier cuvette holders are designed to accommodate standard size 10-mm pathlength cuvettes and shorter path cuvettes with appropriate spacers. The holders accommodate 8.5-mm and 15-mm beam Z-height configurations.

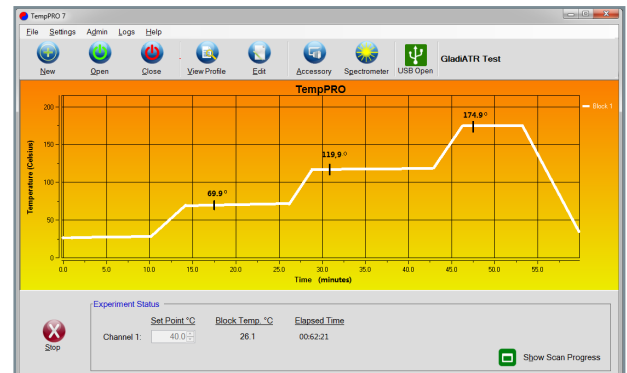


Accessory performance showing block temperature (red) and sample probe temperature (blue).

The temperature controller is configured for a single or dual channel used with the single and twin design, respectively. Within each channel, temperature may be controlled from the precision block RTD sensor or from an optional external temperature RTD probe inserted into the sample cell. All temperature control modules have a USB port for PC communication and may be used with PIKE TempPRO software, which provides functions for accessory programming, setting of temperature points and ramping. Temperature control modules have a touchscreen LCD panel featuring intuitive, menu-driven programming. Single set points or simple ramping functions can be preprogrammed and performed.





Digital Temperature Control Module main menu



PIKE TempPro software for kinetic experiments

SPECIFICATIONS

Cuvette Holders	
Temperature Range	-5 °C–110 °C
Precision	+/- 0.05 °C
Temperature Accuracy	+/- 0.3 °C from -5 °C to 110 °C
Stirring Speeds	10 Steps, Variable
Cuvette Size	12.5 x 12.5 mm (accommodates smaller size with appropriate spacers)
Z-height	8.5 mm and 15 mm
RTD Probe	2 Wire Pt RTD (low drift, high stability)
Dimensions (W x D x H)	83 x 105 x 85 mm
Temperature Controller	Touch-panel display with USB interface. PIKE TempPRO software (sold separately) for PC control with unlimited ramps and automated data collection.
	CE  
Precision	+/- 0.1 °C
Channels	Single or Dual
Functions	Set point, temperature ramping
Input	100–240 VAC, auto setting, external power supply
Output	16 VDC/60 W maximum

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
171-70XXX	Peltier Cuvette Holder, single – liquid regulated
171-80XXX	Peltier Cuvette Holder, twin – liquid regulated
076-1510	Digital Temperature Control Module, LCD/PC, single channel
076-1515	Digital Temperature Control Module, LCD/PC, dual channel
007-0207	PIKE TempPRO Software
171-1905	RTD Probe for Peltier cuvette
170-1100	Liquid Recirculator for Peltier cuvette
162-1905	Micro Stir Bar, 6.35 mm (l) x 3 mm (dia)

Notes: Replace XXX with your spectrophotometer's Instrument Code listed on page 164. Temperature Control Module must be selected.

SPACERS

PART NUMBER	DESCRIPTION
162-1201	Spacer for 1-mm pathlength cuvette
162-1202	Spacer for 2-mm pathlength cuvette
162-1205	Spacer for 5-mm pathlength cuvette

STANDARD RECTANGULAR CUVETTES

PATHLENGTH mm	VOLUME mL	OPTICAL GLASS (334–2500 nm)		NIR QUARTZ (220–3800 nm)	
		With PTFE Cover PART NUMBER	With PTFE Stopper PART NUMBER	With PTFE Cover PART NUMBER	With PTFE Stopper PART NUMBER
1	0.40	162-0220	162-0228	162-0252	162-0260
2	0.70	162-0221	162-0229	162-0253	162-0261
5	1.70	162-0222	162-0230	162-0254	162-0262
10	3.50	162-0223	162-0231	162-0255	162-0263
20	7.00	162-0224	162-0232	162-0256	162-0264
40	14.00	162-0225	162-0233	162-0257	162-0265
50	17.50	162-0226	162-0234	162-0258	162-0266
100	35.00	162-0227	162-0235	162-0259	162-0267

Note: Refer to page 140 for a full selection of cuvettes.