

SPECTORD® PLUS

Peltier Cooled Accessories Guarantee Highest Temperature Accuracy!



PHARMACY



PETROCHEMISTRY



COSMETICS



CLINICAL CHEMISTRY



MATERIAL ANALYSIS



CHEMISTRY/POLYMER INDUSTRY



ENVIRONMENT/WATER/WASTE



FOOD/AGRICULTURE

What is a Peltier cooler?

Peltier cooler is a solid-state active heat pump which transfers heat from one side of the device to the other. Peltier cooling is also called thermo-electric cooling. Thanks to their unique heat and operational characteristics, Peltier modules allow reaching the required cooling without technical problems. They are quite compact, convenient, reliable and efficient.

Advantage of Peltier elements

Peltier elements are solid-state devices with no moving parts; they are extremely reliable and do not require any maintenance. They allow cooling below ambient temperature, are less expensive and more compact.

Advantage of Analytik Jena

Analytik Jena Peltier accessories take the advantage of the Peltier temperature control that permits a very precise analysis. The temperature can be monitored directly in the cell via sensor and can be regulated as precise as $\pm 0.1^\circ\text{C}$. Measurements at fixed wavelengths but also temperature ramps can be controlled by the software. Analytik Jena offers Peltier cooled cell holders and for high sample throughput Peltier cooled cell changers with variable temperature ranges.

Peltier cooled cell holder

The models of Peltier cooled cell holder guarantee a measurement in various temperature ranges like -5°C to 105°C , 10°C to 60°C , or -10°C to 105°C . The applications with a necessity of temperature control for both sample and reference are performed via double Peltier cooled cell holder. By default the single cell holder is equipped with a magnetic stirrer, which ensures fast and uniform temperature distribution within the cell.

**Excellent Temperature Control:
 All Peltier cooled accessories guarantee a temperature
 accuracy of $\pm 0.1^\circ\text{C}$!**

Peltier cooled cell changer

Peltier cooled cell changers are well suited for easy and fast measurements in routine analysis. They allow a high sample throughput for example in food or bio analytical analysis as enzyme kinetics or DNA melting curves. In normal mode the sample of one position is measured for the complete kinetic before the measurement of the next sample starts. Within the software you are able to choose a simultaneous measurement of large sample series as well. All samples of the series are measured directly one after the other for each cycle of the kinetic. This way the measurement period of longsome enzyme kinetics as for example cholesterol with more than one hour, can still be performed in the same time also for sample series with for instance 14 samples.

Why do 14 analysis separately, when you can do all in one run and in the same time period?

Time of analysis comparison:

Measurement period of longsome enzym kinetics, where a precise temperature control is necessary:

Peltier cooled cell holder.

1 Sample performed in **60 minutes**.



versus



2 x 8 Peltier cooled cell changer

14 Samples performed in **60 minutes!**



Device option	SPECORD® 200 PLUS	823-0200P-2
	SPECORD® 210 PLUS	823-0210P-2
	SPECORD® 250 PLUS	823-0250P-2
Accessory option	Peltier cooled cell holder (-5 °C to 105 °C)	820-60263-P
	2 x Peltier cooled cell holder (-5 °C to 105 °C)	820-60265-P
	Peltier cooled cell holder (10 °C to 60 °C)	820-60264-P
	2 x Peltier cooled cell holder (10 °C to 60 °C)	820-60266-P
	Peltier cooled cell holder with external heat exchanging (-10 °C to 105 °C)	820-60248-P
	2 x Peltier cooled cell holder with external heat exchanging (-10 °C to 105 °C)	820-60249-P
	8 cell changer, Peltier cooled (-5 °C to 105 °C) without stirrer	820-60225-P
	with stirrer	820-60228-P
	2 x 8 cell changer, Peltier cooled (-5 °C to 105 °C) without stirrer	820-60231-P
with stirrer	820-60239-P	
Software	WinASPECT® PLUS software includes methods for enzymatic kinetic analysis in standard software package	