## TPW MAINTENANCE APPARATUS

## Model 9210



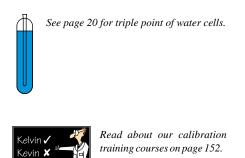
TPW Maintenance Apparatus	Model 9210
Easy realization and maintenance of TPW	
Total uncertainty better than ±0.0005°C	

The triple point of water (0.01°C) is one of the most important temperatures on the ITS-90. Unfortunately, realizing and maintaining triple point of water cells hasn't always been convenient or cost-effective.

Because ITS-90 calibrations require frequent measurements at the triple point of water, and because the triple point of water is often used as a statistical check against the drift of a temperature standard, it is important to be able to realize and maintain well-constructed triple point of water cells easily.

Hart's new Model 9210 TPW Maintenance Apparatus provides built-in programming for the simple supercool-andshake realization and maintenance of our Model 5901B Mini TPW Cell. Simply insert the cell, enter the "freeze" mode through the front-panel buttons, have your morning cup of coffee, and when the 9210 audibly alerts you, remove the Mini TPW Cell and give it a shake to initiate freezing a portion of the water. Reinsert the cell, change the program mode to "maintain," and you've got 0.01°C for the rest of the day with uncertainty of only  $\pm 0.0005^{\circ}$ C.

Precision-machined thermal blocks can also be used to take advantage of the excellent stability and uniformity of the 9210 for performing comparison calibrations. Multi-hole and custom blocks are available with 7-inch depths.



Specifications		
Temperature Range	–10°C to 125°C	
Ambient Operating Range	5°C to 45°C	
Cell Maintenance Time	6–10 hours, typical	
Stability	±0.02°C	
Resolution	0.01° (0.001° in program mode)	
Display Scale	°C or °F, switchable	
Pre-Cool Wells	3 wells (for 3.18, 6.35, or 7.01 mm probes)	
Immersion Depth	6.5" (165 mm) in compari- son block	
Comparison Block	Three multi-hole blocks, blanks, and custom blocks available	
Display Accuracy	±0.25°C	
Well-to-Well Gradient	±0.02°C	
Fault Protection	Adjustable software cutout using control probe, sepa- rate circuit thermocouple cutout for maximum instru- ment temperature	
Cooling Time	Ambient to -5°C: 25 min.	
Heating Time	Ambient to 100°C: 45 min.	
Communications	RS-232 included	
Power	100–230 VAC (±10%), 50–60 Hz	
Exterior Dimensions	8.75" W x 10.25" D x 19.25" H (22 x 26 x 49 cm)	

Weight

Ordering Information		
9210	TPW Maintenance Apparatus	
5901B	Mini TPW Cell	
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15.5 lb. (7 kg) with block

Call for comparison block options.