

MINI FIXED-POINT FURNACE

Model 9260

Primary Standards



Mini Fixed-Point Furnace	Model 9260
Preprogrammed controller makes realizing fixed points easy	
Half the cost (or less) of traditional fixed-point systems	
Training takes a few hours—not a few years	

If the reason you don't use fixed-point cells is because they're too expensive or too difficult to use, you haven't heard of Hart's new Model 9260 Mini Fixed-Point Cell Furnace. This fixed-point system cuts in half the financial investment required to do fixed-point calibrations and virtually all the time and training required by traditional systems.

This furnace costs less than half of a large furnace and works with indium, tin, zinc, and aluminum cells to cover all ITS-90 fixed points from 156.5985°C to 660.323°C. The cells themselves, using a smaller volume of 99.9999% pure metal, also cost much less. But cost is only a part of the issue.

The 9260 makes using fixed points easy. Simply insert the cell at the end of the day and let it sit overnight. The next morning, initialize the built-in software routine for your specific cell. Come back in an hour, verify the stability of the cell,

and you can take measurements for the rest of the day from a near-perfect temperature source!

The built-in software lets you choose between using melting-point curves or freezing-point curves for each metal. The ITS-90 calls for freezing points, but melting points are easier to realize and the difference in uncertainty (less than 2 mK for most applications) is generally insignificant. In fact, the difference between using traditional cells at their freezing points and Hart's mini cells at their melting points is not significant for most labs in most applications.

Comparison blocks are also available for the 9260 for high-precision comparison calibrations at high temperatures. Two blocks are available with a variety of pre-drilled wells in addition to blank or custom blocks. Well depth is 9 inches (229 mm).

Specifications

Temperature Range	50°C to 680°C
Ambient Operating Range	5°C to 45°C
Stability	±0.03°C at 100°C ±0.05°C at 660°C
Vertical Gradient	Top and bottom zones adjustable by offset
Melting/Freezing-Point Duration	6–10 hours typical
Resolution	0.01°
Display Scale	°C or °F, switchable
Immersion Depth	9" (229 mm)
Stabilization Time	15 minutes nominal
Fault Protection	Sensor burnout and short protection, over-temperature thermal cutout
Display Accuracy	±0.2°C to 300°C ±0.3°C to 450°C ±0.5°C to 680°C
Comparison Block	Two multihole blocks, blanks, and custom blocks available
Well-to-Well Gradient	±0.02°C
Heating Time	1.25 hrs. from 25 to 680°C
Cooling Time	11 hrs. from 680 to 100°C
Communications	RS-232 included
Power Requirements	115 VAC (±10%), 60 Hz, 11 A, or 230 VAC (±10%), 50 Hz, 6 A, specify, 1200 W
Exterior Dimensions	8.75" W x 10.25" D x 19.25" H (22 x 26 x 49 cm)
Weight	45 lb. (21 kg) with block

Ordering Information

9260	Mini Fixed-Point Furnace (includes Mini Cell Basket)
2940-9260	Mini Cell Basket

Call for comparison block options.