Datos técnicos

Hart 5947 Mini Metal-Cased Aluminum Cell

Características principales

- Lower uncertainties than comparison calibrations
- All ITS-90 fixed points from TPW to copper
- Reduced equipment and annual recalibration costs

Descripción general del producto: Hart 5947 Mini Metal-Cased Aluminum Cell

If cuteness were reason enough to buy a product, Hart's Mini Fixed-Point Cells would win you over easily. But there's a much better reason to buy them: they give you the least expensive, easiest-to-use fixed-point standards for your lab.

Mini cells eliminate the need for comparison calibrations. Temperatures of fixed-point cells are constant and intrinsic, so only the electrical parameters of the sensor under calibration need to be read. If you're calibrating industrial thermometers, thermocouples, or thermistors and want the most accurate calibration possible, these mini cells will give it to you. If you need a wide range of temperatures, mini cells cover the triple point of water (0.01 °C) and every ITS-90 point from indium (156.5985 °C) to copper (1084.62 °C).

Fixed-points made simple

With mini cells, realization and maintenance are simple. Mini TPW cells can be automatically realized and maintained in our 9210 Maintenance Apparatus. Realizing the triple point of water takes only five minutes, but the plateaus last all

day.

The realization and maintenance of indium, tin, zinc, and aluminum cells are likewise automated through our 9260 Mini Fixed-Point Cell Furnace. Work with them at their designated freeze point, or use them at their melting point to simplify the calibration process even further. We published a paper, “The Comparison Between the Freezing Point and Melting Point of Tin," to help you understand and benefit from the easier procedure of using the melting point of your standard.

These mini cells are made from the same materials and with the same procedures as their full-size counterparts. In fact, they can achieve nearly the same uncertainty levels as Hart’s traditional fixed-point cells. Probes as short as nine inches work with these cells. The specifications table gives you the immersion depth and uncertainty for each cell.

In addition to high-accuracy calibrations of RTDs and PRTs, these cells are perfect for validating the accuracy of SPRTs. If you’re doing comparison calibrations with SPRTs, then you know the importance of occasionally checking their accuracy between their own recalibrations. Because these cells are easy to use and maintain, verification checks are simple and convenient.

Metal-cased cells

Metal-cased cells can also be used in the 9260 maintenance furnace. Because they use stainless steel cases, these cells are easier to use and transport without risk of breakage. You’ll notice that we have designed the metal cased cells with more immersion depth to give even better uncertainty too!

You’ll find these cells easier to use than you expect. You can have a free copy of Xumo Li’s paper comparing freeze-point measurements with melting-point measurements, and if you want a high level of training in using metal freeze-point cells, you can attend one of Fluke Calibration's in-depth training classes held in our lab in Utah.

Especificaciones: Hart 5947 Mini Metal-Cased Aluminum Cell

Specifications	
Fixed-Point	Aluminium F.P.
Temperature (°C)	660.323
Outside Diameter	41.3 mm
Inside Diameter	7.8 mm
Total Cell Height	222 mm
Immersion Depth[1]	156 mm
Cell Only[2]	2.0
Simple Realization[2]	4.0

[1] Distance from the boom of the ceal well to the surface of the pure metal.

[2] ”Cell Only” refers to the expanded uncertainty of the cell when realized by traditional methods and maintained using traditional maintenance devices. “Simple Realization” refers to the expanded uncertainty of the cell when realized using practical methods (melting points instead of freezing points or slush ice instead of an ice mantle, for example) and maintained using Hart’s 9210 and 9260 mini cell maintenance apparatus.

Modelos

5947

Minicelda de aluminio revestida de metal