

## TECHNICAL DATA

# 7312 Triple Point of Water Maintenance Bath



## Key features

- Temperature range from -5 °C to 110 °C.
- Maintain TPW cells for up to six weeks.
- Can maintain two TPW cells or gallium cells for fixed point calibrations.
- Independent cutout circuit that protects cells from breaking.

## Product overview: 7312 Triple Point of Water Maintenance Bath

For frequent use of traditional-size triple point of water cells, nothing helps save you time and hassle like a good maintenance bath. The 7312 Triple Point of Water Maintenance Bath keeps your cells up and running reliably for weeks at a time—even during heavy usage.

The 7312 accommodates two TPW cells and includes three pre-cool wells for properly cooling probes prior to measurements within the cells. Stability and uniformity are each better than  $\pm 0.006$  °C, so your cells stay usable for up to eight weeks. Whatever method you use for building your ice mantles, you can be assured they'll last in a 7312 bath.

An independent safety circuit protects your water cells from freezing and breaking by monitoring the temperature of the bath and shutting down its refrigeration system should the bath controller fail. Noise-reduction techniques in the manufacturing process ensure your bath doesn't add excessive noise to your lab.

With a temperature range from -5 °C to 110 °C, this bath can also be used for comparison calibrations—particularly of

long-stem probes—or maintenance of gallium cells. An optional gallium cell holding fixture fits two cells, which, in a 7312 bath, can maintain their melting plateaus for up to two weeks.

In fact, the 7312 is available with a time-saving 2031A “Quick Stick” Immersion Freezer so you can build your ice mantles quickly and hands-free. Just fill the 2031A’s condensing reservoir with dry-ice and alcohol, insert it into the cell, and get some other work done while your ice mantle forms in less than an hour. (Alternatively, LN<sub>2</sub> may be used.)

If you’re using traditional-size TPW cells, don’t take the time to create an ice mantle only to watch it melt quickly as it sits in a bucket of ice. Maintain your cells the right way in a Fluke Calibration 7312 TPW Maintenance Bath

## Specifications: 7312 Triple Point of Water Maintenance Bath

General Specifications	
Range	–5 °C to 110 °C
Stability	±0.001 °C at 0 °C (alcohol-water mix) ±0.004 °C at 30 °C (alcohol-water mix)
Uniformity	±0.003 °C at 0 °C (alcohol-water mix) ±0.006 °C at 30 °C (alcohol-water mix)
TPW Duration	Six weeks, typical (assumes correctly formed ice mantle)
Set-Point Accuracy	±0.05 °C at 0 °C
Set-Point Repeatability	±0.01 °C
Display Resolution	±0.01 °C
Set-Point Resolution	±0.002 °C; 0.00003 °C in high-resolution mode
Access Opening	121 x 97 mm (4.75 x 3.8 in)
Immersion Depth	496 mm (19.5 in)
Volume	19 liters (5 gallons)
Communications	RS-232 included
Power	115 VAC (±10 %), 60 Hz or 230 VAC (±10 %), 50 Hz, specify
Size (HxWxD)	819 x 305 x 622 mm (12 x 24.5 x 32.25 in)
Weight	34 kg (75 lb.)

## Ordering information



### **7312**

TPW Maintenance Bath

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### **2031A**

"Quick Stick" Immersion Freezer

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**Fluke Corporation**  
PO Box 9090, Everett, WA 98206 U.S.A.

**For more information call:**  
In the U.S.A. (800) 443-5853  
In Europe/M-East/Africa  
+31 (0)40 267 5100  
In Canada (800)-36-FLUKE  
From other countries +1 (425) 446-5500  
[www.fluke.com/en-th](http://www.fluke.com/en-th)

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