



Portable Lab Dry-Wells

Models 9007 and 9023

- Designed for on-ship and on-the-go lab applications
- Two models covering -40°C to 650°C
- Includes three-inch and six-inch calibration zones

These calibrators, designed for the U.S. Navy, cover temperatures from -40°C to 650°C , deliver the performance you'll only find in true lab standards, and come in a totally portable case. If your work involves ocean vessels, aircraft, or service trucks, Hart's Portable Lab Dry-Wells were designed for you.

The 9007 covers -40°C to 140°C . No external cooling is needed, so you get -40°C in normal ambient. Set-point accuracy is $\pm 0.15^{\circ}\text{C}$ and stability is better than $\pm 0.02^{\circ}\text{C}$.

For hotter temperatures, the 9023 extends from 35°C to 650°C . Heating time is only 45 minutes to 650°C . Set-point accuracy is $\pm 0.3^{\circ}\text{C}$ to 450°C and $\pm 0.5^{\circ}\text{C}$ to 650°C . Stability is better than $\pm 0.08^{\circ}\text{C}$ even at 600°C . (The 9023 is only available in quantities. Please call for availability.)

These dry-wells come with a unique calibration at the full, six-inch depth of the well and at a three-inch depth for short probes. Coefficients for each calibration are stored in the dry-well and can be easily selected from the top-panel control buttons to match the length of the probe being tested.

Both models are encased in all-aluminum enclosures that are durable, waterproof, and meet the standards of MIL-T-28800. Each unit comes with both RS-232 and IEEE-488 interface connections. A wide variety of inserts are available covering probe diameters from $1/16"$ (1.6 mm) to $7/8"$ (22 mm).

Specifications

| | |
|-----------------------------------|---|
| Range | 9007: -40°C to 140°C at 25°C 9023: 35°C to 650°C |
| Accuracy | 9007: $\pm 0.15^{\circ}\text{C}$ 9023: $\pm 0.3^{\circ}\text{C}$ to 450°C , $\pm 0.5^{\circ}\text{C}$ to 650°C |
| Stability | 9007: $\pm 0.02^{\circ}\text{C}$ 9023: $\pm 0.08^{\circ}\text{C}$ |
| Heating Times | 9007: 25°C to 140°C : 20 min. 9023: 25°C to 650°C : 45 min. |
| Cooling Times | 9007: 25°C to -40°C : 25 min. 9023: 650°C to 100°C : 150 min. |
| Stabilization | 10 minutes |
| Test Wells | 9007: $3/4"$ dia. x $6"$ deep 9023: $1"$ dia. x $6"$ deep |
| Communications | RS-232 and IEEE-488 |
| Enclosure | Meets Type II, Class 3, Style D requirements of MIL-T-28800 |
| Power | 9007: 115 VAC ($\pm 10\%$), 3 A or 230 VAC ($\pm 10\%$), 1.5 A, switchable, 50/60 Hz, 560 W 9023: 115 VAC ($\pm 10\%$), 7 A or 230 VAC ($\pm 10\%$), 3.4 A, specify, 50/60 Hz, 800 W |
| Size | 13.8" H x 10.8" W x 16.9" D (35.1 x 27.4 x 42.9 cm) |
| Weight | 36 lbs. (16.3 kg) |
| NIST-Traceable Calibration | 9007: Data at -40°C , 0°C , 25°C , 75°C , and 140°C ; 9023: Data at 50°C , 100°C , 200°C , 300°C , 400°C , 500°C , and 650°C |



See our calibration and data acquisition software packages on page 74.

Ordering Information

| | | | |
|-----------|---|-----------|--|
| 9007 | Portable Lab Dry-Well, -40°C to 140°C , $1/4"$ insert | 9023 | Portable Lab Dry-Well, 35°C to 650°C , $1/4"$ insert |
| 3107-2000 | Blank insert | 3123-2131 | Blank insert |
| 3107-2063 | $1/16"$ Insert (1.6 mm) | 3123-2125 | $1/8"$ Insert (3.2 mm) |
| 3107-2125 | $1/8"$ Insert (3.2 mm) | 3123-2156 | $5/32"$ Insert (4 mm) |
| 3107-2156 | $5/32"$ Insert (4 mm) | 3123-2188 | $3/16"$ Insert (4.8 mm) |
| 3107-2188 | $3/16"$ Insert (4.8 mm) | 3123-2250 | $1/4"$ Insert (6.35 mm) |
| 3107-2250 | $1/4"$ Insert (6.35 mm) | 3123-2313 | $5/16"$ Insert (7.9 mm) |
| 3107-2313 | $5/16"$ Insert (7.9 mm) | 3123-2375 | $3/8"$ Insert (9.5 mm) |
| 3107-2375 | $3/8"$ Insert (9.5 mm) | 3123-2500 | $1/2"$ Insert (12.7 mm) |
| 3107-2500 | $1/2"$ Insert (12.7 mm) | 3123-2625 | $5/8"$ Insert (15.9 mm) |
| 3107-2625 | $5/8"$ Insert (15.9 mm) | 3123-2750 | $3/4"$ Insert (19 mm) |
| 3107-2901 | 1 User-Specified Hole | 3123-2875 | $7/8"$ Insert (22 mm) |
| 3107-2902 | 2 User-Specified Holes | 3123-2901 | 1 User-Specified Hole |
| | | 3123-2902 | 2 User-Specified Holes |