

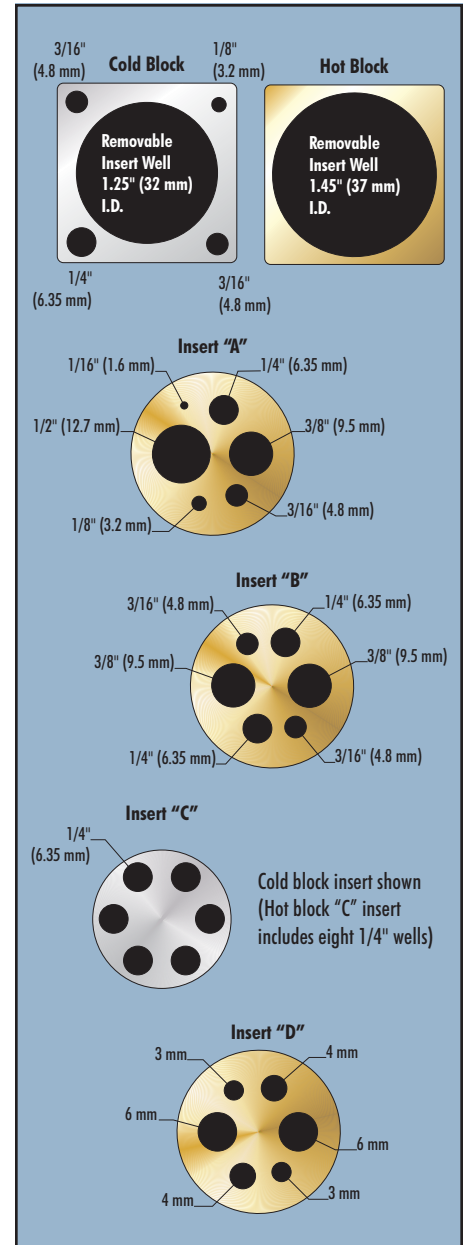
HIGH-ACCURACY DUAL-WELL CALIBRATOR

Model 9011



multi-hole inserts. If you don't find one that suits your applications, we'll provide a blank sleeve or have a custom one made.

At Hart, we continually develop new industrial calibration tools that make your work easier and better. We gave you the first Handheld Dry-Well, the first Micro-Bath, and now the widest ranging dry-well available. Whatever your temperature application, Hart has a solution.



Interchangeable insert options. Each style insert is available for each well.

Feature Summary

Model 9011

- Combined range from -30°C to 670°C , one unit – two blocks
- Two independent temperature controllers (hot and cold side)
- Stability to $\pm 0.01^{\circ}\text{C}$
- Multi-hole wells for calibrating up to eight probes simultaneously

To give you the widest temperature range available in a dry-well calibrator, we've combined two of our most popular units. The new 9011 allows temperature probes to be calibrated from -30°C to 670°C in a single unit.

The 9011 features two independently controlled temperature wells, which makes calibrating RTDs and thermocouples faster than ever. While readings are being taken at one temperature, the other well can be ramping up or down to the next point. Checking the zero and span points of temperature transmitters is a breeze.

The 9011 is a high-accuracy unit that is capable of laboratory as well as field

calibrations. Stabilities to $\pm 0.01^{\circ}\text{C}$ are possible, and display accuracy is better than $\pm 0.25^{\circ}\text{C}$. Using multi-hole interchangeable inserts, you can calibrate more probes at the same time. With a single RS-232 port for both wells, you can automate your calibration work and be even more efficient. Add on Hart's 9932 Calibrate-it software and totally automate your calibrations of RTDs, thermocouples, and thermistors.

Every dry-well we ship from the factory includes a full NIST-traceable calibration report with test data for each well at each point. There's no extra charge for the report or the test readings from your unit. We also include your choice of

Specifications	Hot Block	Cold Block
Range	50°C to 670°C (122°F to 1238°F)	-30°C to 140°C (-22°F to 284°F)
Accuracy	±0.1°C at 100°C ±0.65°C at 600°C	±0.25°C (Insert wells) ±0.65°C (Fixed wells)
Stability	±0.01°C at 100°C ±0.06°C at 600°C	±0.02°C at -30°C ±0.04°C at 140°C
Uniformity	±0.2°C (±0.05°C typical)	±0.05°C (Insert wells) ±0.25°C (Fixed wells)
Well Depth	6" (152 mm)	4.875" (124 mm)
Heating Time to Max.	30 minutes	15 minutes
Cooling Times	120 minutes from 660°C to 100°C	30 minutes from 140°C to -30°C
Well Inserts	1 interchangeable well accommodates multi-hole insert	1 interchangeable well accommodates multi-hole insert, plus four outer wells, 1/4", 1/4", 3/16", and 1/8"
Computer Interface	RS-232 interface included with Model 9930 Interface- <i>it</i> control software	
Power	115 VAC (±10%), 8.8 A or 230 VAC (±10%), 4.4 A, switchable, 50/60 Hz	
Size	11.5" H x 15.5" W x 10.5" D (292 x 394 x 267 mm)	
Weight	36 lb. (16.4 kg)	
NIST-Traceable Certificate (8 points)	Data at 50°C, 100°C, 200°C, 300°C, 400°C, 500°C, 600°C, 660°C	Data at -30°C, 0°C, 25°C, 50°C, 75°C, 100°C, 125°C, 140°C

Technical Tip

Increase Dry-Well Performance and Throughput with a Chub-E4 Thermometer



Hart's new 1529 Chub-E4 Thermometer makes an ideal companion to any dry-well. With a simultaneous display of four temperature channels (RTDs, thermocouples, or thermistors), you can monitor both 9011 wells with separate, high-accuracy RTDs and have two channels left over to connect your test probes.

The Chub-E4 features accuracy to ±0.004°C for RTDs, and ±0.0025°C for thermistors. With RS-232 or optional

IEEE-488, you can automate probe calibrations under PC control with Hart's 9932 Calibrate-*it* software.

By using a comparison calibration technique with an external reference thermometer, you can achieve lower uncertainties. The accuracy of the dry-well display is ideal for most industrial calibrations, but when even higher performance is required, a precision thermometer is necessary. Insert the test and reference probes at similar depths into the dry-well block for best performance.

Connect a Hart 5626 Secondary Reference PRT to cover the entire range of the 9011 with a calibration accuracy to ±0.03°C at 661°C. The 1529 with a calibrated 5626 makes an excellent reference system for any dry-well.

Ordering Information

9011	High-Accuracy Dual-Well Calibrator
3109-0	Insert, Blank (Hot Side)
3109-1	Insert A, Miscellaneous (Hot Side)
3109-2	Insert B, Comparison (Hot Side)
3109-3	Insert C, 8 - 1/4" Wells (Hot Side)
3109-4	Insert D, Comparison - Metric (Hot Side)
3109-5	Insert, X-Cell (Hot Side)
3103-1	Insert, Blank (Cold Side)
3103-2	Insert A, Miscellaneous (Cold Side)
3103-3	Insert B, Comparison (Cold Side)
3103-4	Insert C, 6 - 1/4" Wells (Cold Side)
3103-5	Insert, X-Cell (Cold Side)
3103-6	Insert D, Comparison - Metric (Cold Side)
2125-C	IEEE-488 Option (Serial to IEEE Converter Box)
9319	Large Instrument Case
1529	Chub-E4 Standards Thermometer
5626	Secondary Standards PRT, 661°C