Micro-Baths

- World's smallest portable calibration baths
- Calibrates sensors of any size or shape
- Stability to ±0.015 °C
- Ranges from –30 °C to 200 °C

Need portability and extreme stability? Hart Micro-Baths have both. We invented the Micro-Bath. And, while many have tried to duplicate it, none of them use proprietary Hart Scientific controllers, so none of them deliver performance like a Hart bath. Micro-Baths can be used anywhere for any type of sensor. The 6102 weighs less than 4.5 kg (10 lb.), with the fluid. It's lighter and smaller than most dry-wells, has a spill-proof lid, and is easier to carry than your lunch. You can take it where you need to go without carts or excessive effort. Micro-Baths can even be transported with the fluid in them.

Wherever you go with your Micro-Bath, you can count on its performance. Each model is stable to ±0.03 °C or better, depending on the fluid you use. Uniformity is ±0.02 °C or better for low uncertainties using a reference thermometer. Display accuracy has been improved to ±0.25 °C for quick calibrations without a reference thermometer. In short, you get the stability and precision of a liquid bath in a dry-well-sized package. Don't be fooled by competitors who pour oil into a dry-well and call it a bath. Hart Micro-Baths are maximized for true fluid-bath performance.

With a 48 mm (1.9-inch) diameter, 140 mm (5.5-inch) deep tank, a Micro-Bath can calibrate any type of sensor including short, square, or odd-shaped sensors. The problems of fit and immersion are virtually eliminated by using a fluid medium rather than a dry-block calibrator. Micro-Baths are perfect for liquid-in-glass and bimetal thermometers.

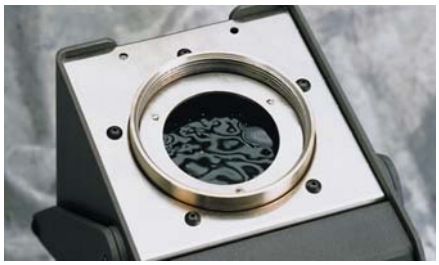
The 6102 has a temperature range from 35 °C to 200 °C, the 7102 covers –5 °C to 125 °C, and the 7103 extends from –30 °C to 125 °C. Stability, uniformity, and accuracy specifications cover the entire range for each bath, not just the best temperature.

All Micro-Baths have RS-232 ports, come with our Interface-*it* software, and can be used with Hart's MET/TEMP II software (described on page 83). Also included are contacts to calibrate a thermal switch, eight set-point memory storage, ramp-rate adjust, and over-temperature safety cutout.

You may have noticed we haven't touted our CFC-free refrigeration. Yes, cold Micro-Baths are CFC-free, and also compressor-free. That's right—no heavy, noisy compressor to lug around. We achieve our temperature range and stability with only one moving part. This means more durability and less weight.

Hart manufactures and sells temperature calibration baths of every size and shape, and now we have the smallest and lightest baths in the industry to go with the dozens of other models we make.

Look at the specs, price, and value of these portable instruments and you'll know why Hart Scientific is the number-one company in this business.



A Micro-Bath's 48 mm (1.9 in) diameter tank lets you calibrate just about any size industrial sensor.

Micro-Baths

FLUKE®
Hart Scientific®

Specifications	6102	7102	7103
Range	35 °C to 200 °C (95 °F to 392 °F)	–5 °C to 125 °C (23 °F to 257 °F)	–30 °C to 125 °C (–22 °F to 257 °F)
Accuracy	±0.25 °C		
Stability	±0.02 °C at 100 °C (oil 5013) ±0.03 °C at 200 °C (oil 5013)	±0.015 °C at –5 °C (oil 5010) ±0.03 °C at 121 °C (oil 5010)	±0.03 °C at –25 °C (oil 5010) ±0.05 °C at 125 °C (oil 5010)
Uniformity	±0.02 °C		
Resolution	0.01 °C/°F		
Operating Temperature	5 °C to 45 °C		
Heating Time	25 °C to 200 °C: 40 minutes	25 °C to 100 °C: 30 minutes	25 °C to 100 °C: 35 minutes
Cooling Time	200 °C to 100 °C: 35 minutes	25 °C to 0 °C: 30 minutes	25 °C to –20 °C: 45 minutes
Well Size	64 mm dia. x 140 mm deep (2.5 x 5.5 in) (access opening is 48 mm [1.9 in] in diameter)		
Size (WxHxD)	14 x 26 x 20 cm (5.5 x 10.38 x 8 in)	18 x 31 x 24 cm (7.2 x 12 x 9.5 in)	23 x 34 x 26 cm (9 x 13.2 x 10.5 in)
Weight	4.5 kg (10 lb.) with fluid	6.8 kg (15 lb.) with fluid	9.8 kg (22 lb.) with fluid
Volume	0.75 L (1.6 pints)	0.75 L (1.6 pints)	1.0 L (2.11 pints)
Power	115 VAC (±10 %), 2.3 A or 230 VAC (±10 %), 1.1 A, switchable, 50/60 Hz, 270 W	115 VAC (±10 %), 1.8 A or 230 VAC (±10 %), 0.9 A, switchable, 50/60 Hz, 200 W	94–234 VAC (±10 %), 50/60 Hz, 400 W
Computer Interface	RS-232 included with free Interface-*it* software		
NIST-Traceable Calibration	Data at 50 °C, 100 °C, 150 °C, and 200 °C	Data at –5 °C, 25 °C, 55 °C, 90 °C, and 121 °C	Data at –25 °C, 0 °C, 25 °C, 50 °C, 75 °C, 100 °C, and 125 °C

Ordering Information - 6102

6102	Micro-Bath, 35 °C to 200 °C (includes a transport seal lid and a 2082-M test lid)
2082-M	Spare test lid
2083	76 mm (3 in) tank extension adapter (affects stability, uniformity, and range at extreme temperatures)
5013-1L	Silicone oil, type 200.20, 1 liter (usable range: 10 °C to 230 °C)
9310	Carrying Case
3320	Spare Stir Bar, Micro-Bath

Ordering Information - 7102

7102	Micro-Bath, –5 °C to 125 °C (includes a transport seal lid and a 2082-P test lid)
2082-P	Spare test lid
2083	76 mm (3 in) tank extension adapter (affects stability, uniformity, and range at extreme temperatures)
5010-1L	Silicone oil, type 200.05, 1 liter (usable range: –40 °C to 130 °C)
9311	Carrying Case
3320	Spare Stir Bar, Micro-Bath

Ordering Information - 7103

7103	Micro-Bath, –30 °C to 125 °C (includes a transport seal lid and a 2085 test lid)
2085	Spare test lid
5010-1L	Silicone oil, type 200.05, 1 liter (usable range: –40 °C to 130 °C)
9317	Carrying Case
3320	Spare Stir Bar, Micro-Bath