

6102, 7102 and 7103 Micro-Baths

Portability and extreme stability



- Stability to $\pm 0.015\text{ }^{\circ}\text{C}$
- Ranges from $-30\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$
- Exceptional bath portability

Micro-Baths can be used anywhere for any type of sensor. The Model 6102 weighs 4.5 kg with the fluid. It's lighter and smaller than most dry-wells and has a spill-proof lid. Micro-Baths can even be transported with fluid in them.

Display accuracy to $\pm 0.25\text{ }^{\circ}\text{C}$ for quick calibrations without a reference thermometer.

With a 4.8 cm diameter, 14 cm 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.

All Micro-Baths have RS-232 ports and come with Interface-*it* software. Also included are contacts to Calibrate a thermal switch, eight set-point memory storage, ramp-rate adjust and over-temperature safety cutout.

Ordering Information

Models

7103-256 Micro-Bath, $30\text{ }^{\circ}\text{C}$ to $125\text{ }^{\circ}\text{C}$
(includes a transport seal lid and a 2085 test lid),
(220 V)

7102-256 Micro-Bath, $-5\text{ }^{\circ}\text{C}$ to $125\text{ }^{\circ}\text{C}$
(includes a transport seal lid and a 2082-P test lid),
(220 V)

6102-256 Micro-Bath, $35\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$
(includes a transport seal lid and a 2082-M test lid)
(220 V)

Options & Accessories

2082-P Spare test lid, plastic (7102)

2082-M Spare test lid, metal (6102)

2085 Spare test lid, plastic (7103)

2083 7.6 cm tank expansion adapter for 6102 and 7102
(affects stability, uniformity and range at extreme temperatures)

5010-L Silicone oil, type 200.05, 1 liter
(usable range: $-40\text{ }^{\circ}\text{C}$ to $130\text{ }^{\circ}\text{C}$)

5013-L Silicone oil, type 200.20, 1 liter
(usable range: $10\text{ }^{\circ}\text{C}$ to $230\text{ }^{\circ}\text{C}$)

9317 Carrying case for 7103

9310 Carrying case for 6102

9311 Carrying case for 7102

Summary specifications 6102, 7102 and 7103

Specifications	6102	7102	7103
Range	35 °C to 200 °C	–5 °C to 125 °C	–30 °C to 125 °C
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		
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	2.5 in dia. x 5.5 in deep (64 x 139 mm)(access opening is 1.9 in [48 mm] in diameter)		
Size H x W x D	26 x 14 x 20 cm	31 x 18 x 24 cm	34 x 23 x 26 cm
Weight	4.5 kg with fluid	6.8 kg with fluid	9.8 kg with fluid
Volume	0.75 L	0.75 L	1.0 L
Power	230 VAC (± 10 %), 1.1 A, switchable, 50/60 Hz, 270 W	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

Fluke and Hart Scientific have teamed up to solve one of the most common yet neglected problems when calibrating process loops: the calibration of the temperature sensor itself. Thanks to a new firmware release, the Fluke 744 calibrator now supports Hart Scientific's Dry-Well and Micro-Baths for complete temperature transmitter calibrations.

