

## 6102, 7102 and 7103 Micro-Baths

### Portability and extreme stability



- Stability to  $\pm 0.015$  °C
- Ranges from -30 °C to 200 °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  $\pm 0.25$  °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 °C to 125 °C  
(includes a transport seal lid and a 2085 test lid),  
(220 V)

**7102-256** Micro-Bath, -5 °C to 125 °C  
(includes a transport seal lid and a 2082-P test lid),  
(220 V)

**6102-256** Micro-Bath, 35 °C to 200 °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 °C to 130 °C)

**5013-L** Silicone oil, type 200.20, 1 liter  
(usable range: 10 °C to 230 °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.

