

Calibration

# 7102/7103 Micro-Bath

Safety Information



1-year limited warranty. See the User's Guide for the full warranty.

### Introduction

The Fluke Calibration 7102/7103 Micro-Bath (The Product) is a portable and bench-top temperature calibrator that calibrates thermocouple and RTD temperature probes. For complete Product use instructions, download the *7102 User's Guide* or the *7103 User's Guide* from <a href="https://www.flukecal.com">www.flukecal.com</a>.

Note

The Product CD no longer ships with these Products.

#### **Contact Fluke Calibration**

Fluke Corporation operates worldwide. For local contact information, go to our website: <a href="https://www.flukecal.com">www.flukecal.com</a>

To register your product, view, print, or download the latest User's Guide or manual supplement, go to our website.

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### **Safety Information**

More specific safety information is listed in the User's Guide where applicable.

A **Warning** identifies hazardous conditions and procedures that are dangerous to the user.

#### **∧ M** Warning

To prevent possible electrical shock, fire, or personal injury:

- Read all safety information before you use the Product.
- Carefully read all instructions.
- Use this Product indoors only.
- Do not use the Product if it operates incorrectly.
- Follow local regulations regarding use with toxic, flammable, corrosive, or otherwise hazardous fluids. Incorrect product installation, abuse, or damage can lead to operator exposure to these fluids. Limit hazardous-fluid exposure to permitted levels in case of leakage or rupture.
- Do not operate the Product in an excessively wet, oily, dusty, or dirty environment.
- Do not use the Product if it is altered or damaged.
- Disable the Product if it is damaged.
- Replace the mains power cord if the insulation is damaged or if the insulation shows signs of wear.
- Make sure that the power cord is positioned in such a way as it cannot contact hot surfaces or temperature probes. Always inspect power cord before use for any damage to the insulation due to contact with hot surfaces, cuts or abrasions.
- Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.
- Do not use the Product around explosive gas, vapor, or in damp, dusty, or wet environments.
- Do not use the Product above its rated frequency.
- Connect an approved three-conductor mains power cord to a grounded power outlet.
- Do not put the Product where access to the mains power cord is blocked.
- Make sure that the space around the Product meets minimum requirements. Leave at least 15 cm (6 inches) of clearance around the Product.
- Do not use an extension cord or adapter plug.
- Do not keep the Product in operation and unattended at high temperatures.
- Turn the Product off and remove the mains power cord. Stop for two minutes to let the power assemblies discharge before you open the fuse door.
- Replace a blown fuse with exact replacement only for continued protection against arc flash.
- Turn off the Product and remove the mains power cord. Stop for 2 minutes to let the internal circuits discharge before you open the fuse door or remove Product covers.
- Have an approved technician repair the Product.

- Do not install an access cover without holes onto a bath that is energized.
   Dangerous pressures may result from fluid vaporizing.
- Do not use the Product for any application other than calibration work. The Product is for temperature calibration only. Any other use of the unit may cause unknown hazards to the user.
- To move the Product, lift the Product by the handle provided. Do not move the Product until the display reads <25 °C (77 °F) and the Product has been drained or the transport lid installed.
- Always ensure the Product is cool before you close it for storage.
- Do not touch the well access surface of the Product.
- Do not mix water and oil when exceeding temperatures of 90 °C (194 °F). The
  temperature of the well access is the same as the actual temperature shown on
  the display. For example, if the Product is set at 125 °C (257 °F) and the display
  reads 125 °C, the well is at 125 °C (257 °F).
- Do not operate near flammable materials. Extreme temperatures could ignite the flammable material.
- The top sheet metal of the Product may exhibit extreme temperatures for areas close to the well access.
- Do not turn off the unit at temperatures >100 °C (212 °F). This could create a
  hazardous situation. Select a set-point <100 °C (212 °F) and allow the Product to
  cool before you turn it off.</li>
- Do not remove the fluid at high temperatures. The fluid will be the same temperature as the display temperature.
- Use of this Product at high temperatures for extended time periods requires caution.
- Always operate this Product at room temperatures listed in Environmental Conditions in the User's Guide.
- Overhead clearance is required. Do not place the Product under a cabinet or other structure.
- Use a ground fault interrupt device.
- Fluids may expand at different rates. Allow for fluid expansion inside the well by Keeping the fluid level at least 1.9 cm (0.75 inches) below the top of the well at all times.

# **Symbols**

Symbol	Description	
$\triangle$	WARNING. RISK OF DANGER.	
$\triangle$	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.	
[]i	Consult user documentation.	
	WARNING. HOT SURFACE. Risk of burns.	
CE	Conforms to European Union directives.	
$\Box$	Fuse	
X	This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste.	

## **Safety Specifications**

Complete specifications are in the User's Guide.

Range 7102 7103 7103-TR	-5 °C to 125 °C (23 °F to 257 °F) -30 °C to 125 °C (-22 °F to 257 °F) -30 °C to 150 °C (-22 °F to 302 °F)
Operating Temperature	5 °C to 45 °C (41 °F to 113 °F)
Relative Humidity	Maximum 80 % for temperature <30 °C, decreasing linearly to 35 % at 45 °C
Ambient Pressure	75 kPa to 106 kPa
Altitude	<2000 meters
Well Size	64 mm diameter x 139 mm deep (2.5 in x 5.5 in), Access opening 48 mm (1.9 in) in diameter
Exterior Dimensions 7102 (HxWxD) 7103 (HxWxD)	310 cm x 180 cm x 240 cm (12 in x 7.2 in x 9.5 in) 230 cm x 340 cm x 260 cm, (9 in x 13.2 in x 10.5 in)
<b>Weight</b> 7102 7103	6.8 kg (15 lb) with fluid 10.0 kg (22 lb) with fluid
Power 7102 7103	115/230 VAC (±10 %), 50/60 Hz, 300 VA 115/230 VAC (±10 %), 50/60 Hz, 650 VA
Fuse Rating 7102 7103	T, 4 A, 250 V F,5 A, 250 V
Cooling	Fan and Thermal Electric Devices (TED)
Safety General Heating	IEC 61010-1: Overvoltage Category II, Pollution Degree 2 IEC 61010-2-010

Electromagnetic Compatibility (EMC)	International
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