

9103 Dry-Well

Safety Information



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

Introduction

The Fluke Calibration 9103 Dry-Well (the Product or the Calibrator) is a small portable instrument for quick on-site checks and calibration of thermocouple and RTD temperature probes. The Product is small enough to use in the field, and accurate enough to use in the lab. For complete Product use instructions, download the *9103 User's Guide* from www.flukecal.com.

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: www.flukecal.com

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

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



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.
- Do not make connections on hazardous live conductors in damp or wet environments.
- 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 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.
- 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.
- Do not use an extension cord or adapter plug.
- Make sure that the space around the Product meets minimum requirements. Leave at least 150 mm (6 inches) of clearance around the Product.
- 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 turn the Product upside down with the inserts in place; the inserts will fall out 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.
- Do not remove inserts at high temperatures. Inserts are the same temperature as the display temperature. Use extreme care when removing hot inserts.
- 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.
- 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.
- Do not operate the Product in an excessively wet, oily, dusty, or dirty environment.

Symbols

Symbol	Description
	WARNING. RISK OF DANGER.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	Consult user documentation.
	WARNING. HOT SURFACE. Risk of burns.
	Conforms to European Union directives.
	Fuse
	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	-25 °C to 140 °C (-13 °F to 284 °F), at 23 °C ambient
Accuracy	±0.25 °C (±1.0 °C in holes >6.4 mm (1/4 in))
Stability	±0.02 °C at -25 °C ±0.04 °C at 140 °C
Thermal Electric Devices (TED)	150 W
Power Requirements	115/230 V ac (±10 %), 50/60 Hz, 250 VA
Fuse Rating	F, 3 A, 250V
Size (HxWxD)	261 mm x 143 mm x 245 mm (10.25 in x 5.63 in x 9.63 in)
Environmental Conditions Ambient Temperature Range Relative Humidity Pressure Altitude	5 °C to 45 °C (41 °F to 113 °F) maximum 80 % for temperature <31 °C, decreasing linearly to 35 % at 45 °C 75 kPa to 106 kPa <2000 m
Weight	5.7 kg (12 lb)
Safety	General IEC 61010-1: Overvoltage Category II, Pollution Degree 2 Heating IEC 61010-2-010
Electromagnetic Compatibility (EMC)	International..... IEC 61326-1: Basic Electromagnetic Environment CISPR 11: Group 1, Class A <i>Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.</i> <i>Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.</i> <i>Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.</i> <i>Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.</i> <i>The equipment may not meet the immunity requirements of this standard when test leads and/or test probes are connected.</i> Korea (KCC) Class A Equipment (Industrial, Broadcasting, & Communication Equipment) <i>Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.</i> USA (FCC)..... 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.