

9009

Industrial Dual-Block Calibrator

Safety Information



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

Introduction

The Fluke Calibration 9009 Industrial Dual-Block Calibrator (the Product, calibrator, or instrument) is a portable instrument/bench-top temperature calibrator. Use the Product to calibrate thermocouple and RTD temperature probes. For complete Product use instructions, download the *9009 User's Guide* from www.flukecal.com.

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

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.

Warning

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

- Read all safety information before you use the Product.
- Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.
- Carefully read all instructions.
- Do not use the Product if it operates incorrectly.
- Do not make connections on hazardous live conductors in damp or wet environments.
- Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.
- Do not use the Product around explosive gas, vapor, or in damp or wet environments.
- Make sure that the space around the Product meets minimum requirements.
- Use only specified replacement fuses.
- Have an approved technician repair the Product.
- Disable the Product if it is damaged.
- 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.
- Connect an approved three-conductor mains power cord to a grounded power outlet.
- Use this Product indoors only.
- Do not put the Product where access to the mains power cord is blocked.
- Use only the mains power cord and connector approved for the voltage and plug configuration in your country and rated for the Product.
- Replace the mains power cord if the insulation is damaged or if the insulation shows signs of wear.
- Do not use the Product if it is altered or damaged.

- **Use only cables with correct voltage ratings.**
- **Do not keep the Product in operation and unattended at high temperatures.**
- **Do not use an extension cord or adapter plug.**
- **Use caution when you install and remove probes and inserts from the Product. They can be hot.**
- **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 touch the well access surface of the unit.**
- **Make sure 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 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 turning it off.**
- **Do not remove inserts at high temperatures. Inserts will be the same temperature as the display temperature. Use extreme care when you remove hot inserts.**
- **Make sure the built in carrying case is closed securely and the latches are securely in place when you lift the Product. Lift the Product only by the handle provided to move the Product. Do not close the case and move the Product until the display reads <100 °C (212 °F).**
- **Always operate the Product at room temperatures as specified in the User's Guide under *Environmental Conditions*. Allow sufficient air circulation by leaving at least 15 cm (6 in) of clearance around the Product.**
- **Do not place the Product under a cabinet or other structure. Overhead clearance is required.**

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. Do not dispose of this product as unsorted municipal waste.

Safety Specifications

Specification	Hot Block		Cold Block
Range	50 °C to 350 °C (122 °F to 662 °F)		–15 °C to 110 °C (5 °F to 230 °F) [–8 °C to 110 °C (17 °F to 230 °F) when hot block is at 350 °C(662 °F)]
Accuracy (Ambient at 23 °C ±5 °C)	±0.6 °C		±0.2 °C
Stability ¹	±0.1 °C from 50 °C to 100 °C ±0.05 °C > 100 °C		±0.05 °C
Well-to-Well Uniformity	±0.1°C		
Display Resolution	0.1 °		
Heating Times ²	30 minutes from 25 °C to 350 °C	15 minutes from 25 C to 110 °C	
Cooling Times ²	40 minutes from 350 °C to 100 °C	16 minutes from 25 °C to -15 °C	
Stabilization Times	8 minutes		
Well Depth	102 mm (4 in)		
Removable Inserts	Two 6.4 mm and 4.8 mm (1/4 in and 3/16 in) inserts included – other inserts available		
Power	115 VAC (±10 %), 50/60 Hz, 250 W [optionally 230 VAC (±10 %), 50/60 Hz, 250 W]		
Heater	135 W	40 W TED	
Cooling	Fan	40 W TED	
Size (H x W x D)	178 mm x 267 mm x 248 mm (7 in x 10.5 in x 9.75 in)		
Operating Environment			
Ambient temperature range	5 °C to 45 °C (41 °F to 113 °F)		
Ambient relative humidity	maximum 80 % for temperature <31 °C, decreasing linearly to 50 % at 45 °C		
Pressure	75 kPa to 106 kPa		
Mains voltage	within ±10 % of nominal		
Altitude	<2000 m		
Weight	4.5 kg (10 lb)		
Safety	EC 61010-1: Overvoltage Category II, Pollution Degree 2 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> 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 15.10		
[1] Stability is two times the standard deviation. [2] Heating and cooling times may be affected by line voltages and ambient temperatures.			