

DATASHEET

Standard-Resistor-Bath

Isotech

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Dew point to 40°C

Resistor Maintenance Bath

Model 455

- Proven Use
- $\pm 0.005^{\circ}\text{C}$ stability and gradients
- Will House Several Resistors

This bath is the result of many years of development and is used to maintain the temperature of standard resistors used with thermometry bridges. It can also be used with the Automatic Resistance Bridge Calibrator, A-RBC.

Heating and cooling is accomplished by efficient solid-state Peltier chilling modules giving optimal control around ambient. Solid state cooling ensures minimal power consumption, silent operation and no vibration.

Stability and temperature differences total less than $\pm 0.015^{\circ}\text{C}$ when measured directly in the oil of the bath and $\pm 0.003^{\circ}\text{C}$ when measured inside a Fixed Standard Resistor.

The bath will house several Resistors depending on their size and is ideal for measuring the temperature coefficients of Fixed Resistors, as well as maintaining them at a selected temperature.

The oil used in the bath is very special, it has to be very high resistance and very low viscosity. Wrong choice of oil will cause larger temperature gradients and may cause the motor to burn out.

Updated Control System

The control system has been updated and now features a large colour display with crystal clear graphics. An Ethernet interface allows the bath temperature to be remotely monitored. For applications where it is necessary to change the bath temperature to determine the resistor temperature coefficient the bath can be programmed to step through a series of temperatures at a controlled ramp rate. Other features include data logging of the bath temperature along with the air intake temperature - the data can be exported to a USB drive.



Model	455
Temperature Range	Dew point to 40°C
Accuracy	$\pm 0.005^{\circ}\text{C}$ stability and gradients
Control	0.01°C Resolution.
Interfaces	Ethernet and USB Host
Power	150 W typical, 100-130 or 208-240Vac*, 50/60Hz (*field changeable)

Dimensions	Height - 910mm Width - 635mm Depth - 710mm Weight - 66kgs
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Accessories	
932-19-72	35 litres of special oil

How to order
455 Standard Resistor Maintenance Bath.
Please specify voltage required.
Please specify number and type of resistors.