

PR325 Series Thermocouple Calibration Furnace

PANRAN

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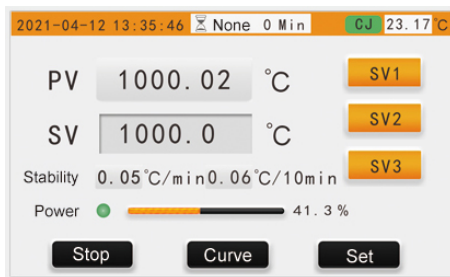
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PR325 Series Thermocouple Calibration Furnaces have excellent performance and rich functions. It adopts a new structural design, has a longer service life, and solves the problems of furnace positioning and high temperature electric leakage through the built-in metal positioner.

The control part uses part of the technology of the PR330 Multi-zone Temperature Calibration Furnace, which has the ability to adjust the axial temperature uniformity slightly. Compared with the traditional thermocouple calibration furnace, better verification or calibration results can be obtained without an isothermal block.



▲ Front Color Touch Screen Interface



▲ Front View



▲ Rear Aerial View

I. Features

- The Axial Temperature Uniformity over the Full Range is Better Than 1°C/6cm

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The controller can automatically adjust the balance power at both ends, and can obtain 1°C/6cm axial temperature uniformity in the temperature range of 300°C~1200°C, which can effectively reduce the uncertainty of the verification or calibration process.

■ Integrated High-accuracy Temperature Controller and Reference End Compensator

Using PR2601 temperature controller, it has a measurement accuracy of 0.01. With the special reference end compensator, the accuracy is better than 0.6°C+0.1%RD when using type N 、 type S master thermocouple.

■ Built-in Positioner for Easy Sensor Positioning

The bottom of the built-in metal positioner is 32cm away from the test end of the furnace opening, and the sensor positioning can be completed by simply inserting the sensor into the bottom of the positioner.

■ Longer Service Life

Under the same operating conditions, by increasing the load capacity of the internal heating wire, the service life can be several times longer than that of traditional calibration furnaces.

■ Rich Software and Hardware Functions

Using the front color touch screen, it can display and set general measurement and control parameters, and can also perform operations such as timed power on and off, temperature stability settings, and WIFI settings.

II. Other Functions

Other Functions	
<ul style="list-style-type: none"> ■ Temperature control sensor multi-temperature point correction ■ Adaptive temperature control parameters ■ Real-time temperature, power curve display ■ Built-in reference junction compensation 	<ul style="list-style-type: none"> ■ Custom temperature fluctuation calculation ■ Custom alarm temperature upper and lower limits ■ WIFI expandable ■ Optional units °C, °F, K

III. Technical Parameters

■ Model Selection and Technical Parameters

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Model	PR325A	PR325B	PR325C	PR325D
Application	Working TC calibration	Type S, R working TC verification/calibration	Base metal TC calibration	
Master TC Type	Type N(optional type S)	Type S	Type N	
Temperature Range	300°C~1200°C			
Furnace Cavity Dimension	Φ40 mm×600mm			
Standard Configuration	-	Coaxial Cleaning Ceramic Tube (Inner Diameter approx. φ20mm)	Armored TC Calibration Isothermal Block (opening φ8mm×7, length 100mm)	Base Metal TC Calibration Isothermal Block (ID φ28mm, length 150mm)
Temperature Field Parameter	400°C, 1000°C: within the axial 60mm of the effective working area, the absolute value of the temperature difference between any two points is not greater than 1.0°C; within the axial 30mm, the absolute value of the temperature difference between any two points is not greater than 0.5°C.	420°C, 1000°C, 1085°C: The highest temperature point in the furnace deviates from the geometric center of the furnace by no more than 20mm, and there is a uniform temperature field with a temperature change gradient of ≤0.4°C/10mm within ±20mm of the highest temperature point.	400°C, 1000°C: The temperature difference within 30mm axial direction from the bottom of the isothermal block hole is not greater than 0.5°C; the absolute value of the temperature difference between any holes in the same section at the bottom of the hole is not greater than 0.25°C.	400°C, 1000°C: Within the axial 30mm of the effective working area, the absolute value of the temperature difference between any two points is not greater than 0.5°C; within the radial radius of not less than 14mm, the absolute value of the temperature difference between any two points on the same cross section is not greater than 0.25°C.
Temperature Stability	≤0.1°C/min, ≤0.3°C/10min			
Specification	-	JJG 141-2013	JJF 1262-2010	JJF 1637-2017

■ General Technical Parameters

Item	Parameters
Furnace Cavity Dimension	φ40mm×600mm
Dimensions	705×385×490mm (L×W×H)
Display Screen	5.0-inch industrial touch screen with a resolution of 800×480 pixels
Communication Method	RS232 (Standard), WiFi

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Weight	46kg
Rated Power	3kW
Power Supply	220VAC±10%
Working Environment	-5~35°C, 0~80%RH, Non-condensing
Storage Environment	-20~70°C, 0~80%RH, Non-condensing

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