

# PR710 Series Precision Digital Thermometer

— Ideal replacement for standard mercury thermometers



The PR710 series, with characteristics of high accuracy and stability, are the hand-held precision thermometers customized for temperature measurement. It is a precision temperature measuring instrument tailored for the temperature measurement industry. The measurement range covers from  $-80^{\circ}\text{C}$  to  $300^{\circ}\text{C}$ , and the temperature data can be displayed directly on the LCD screen. PR710 series thermometers possess powerful human interaction and communication functions and they are small in size and convenient to carry, which is very suitable for laboratories and on sites.

## I Features

### ■ Excellent Measurement Accuracy

With the characteristics of self-calibration using the internal standard resistance, PR710 series thermometers offer an excellent long-term stability to ensure that the annual change of the whole series of products is better than  $0.05^{\circ}\text{C}$ . the PR712 series products annual change of full-scale is better than  $0.01^{\circ}\text{C}$ .

PANRAN instruments are available in South Africa from Intercal (Pty) Ltd

[sales@intercal.co.za](mailto:sales@intercal.co.za)

[www.intercal.co.za](http://www.intercal.co.za)

+27 11 315 432

### ■ Extremely-low Temperature Coefficient

In the temperature range of  $-10^{\circ}\text{C}\sim 60^{\circ}\text{C}$ , the temperature coefficient of PR710 series thermometers is as low as  $1\text{ppm}/^{\circ}\text{C}$ . When the thermometers are run above the heat source, the temperature of the heat source has little effect on its temperature indication.

### ■ Traceable to other Standard Temperature Device

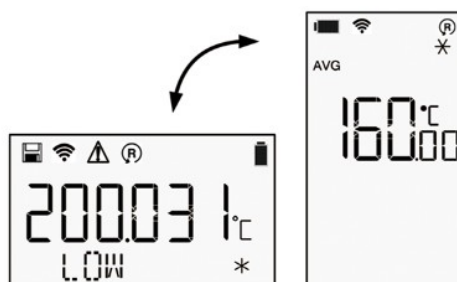
With authorization, using the software of master controller or the calibration function provided by itself, PR710 can be easily traced to standard temperature devices such as SPRTs. After tracing, the temperature measurement data can be coincide with standard devices for a long time.

### ■ Resolution of $0.001^{\circ}\text{C}$

The electrical measurement performance is comparable to the commonly used  $7\ 1/2$  multimeter. Stable readings at a resolution of  $0.001^{\circ}\text{C}$  can be achieved.

### ■ The Screen can Suit the Sight with its Built-in Gravity Sensor

There are two display modes, the horizontal and the vertical, to realize automatic conversion of two display modes, making it easy to read during operation.



▲ Automatic Flipping Screen

### ■ Wireless Communication Function

After the PR6002 wireless communication module is connected to the master controller, can be established with multiple PR710 series thermometers, and the indication data of the thermometers can be monitored in a real-time way. Compared with other traditional standard devices, the thermometers are easier to get the temperature indication

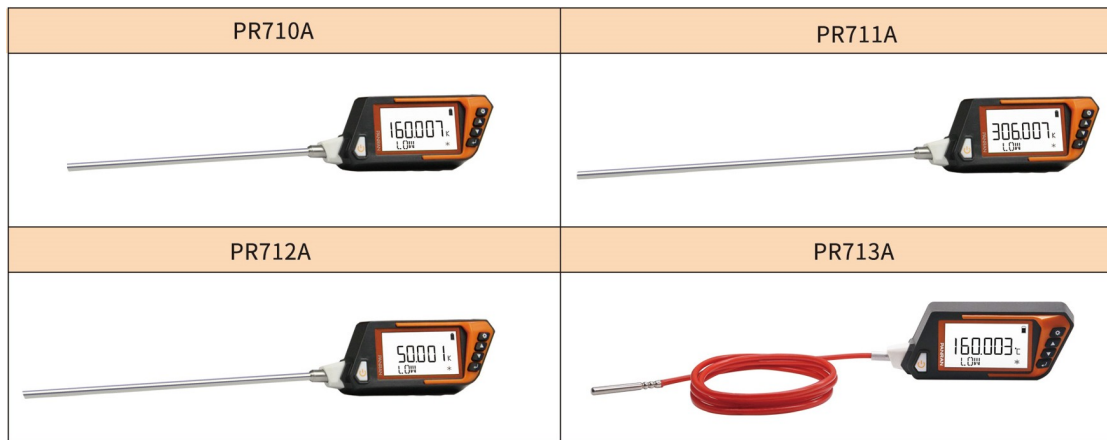


▲ Wireless Communication Module

■ Ultra-low Power Consumption

Under the premise of turning off the wireless communication function, they can work continuously for more than 1400 hours with only three AAA batteries.

II Models and Specifications



Specification/Model	PR710A	PR711A	PR712A	PR713A
Name	Precision Digital Thermometers		Standard Digital Thermometers	Precision Digital Thermometers
Temperature range	-40 ~ 160°C	-80 ~ 300°C	-5 ~ 50°C	-40°C ~ 160°C
Accuracy	0.05°C	0.05°C+0.01%RD	0.01°C	0.05°C
Sensor length	300mm	500mm	400mm	1300mm
Sensor specifications	Metal rod	Metal rod	Metal rod	Waterproof cord
Weight	145g	160g	150g	160g
Sensor Diameter	φ5mm	Φ6mm	φ5mm	φ5mm
Calibration period	1 year			
Display resolution	0.01°C and 0.001°C optional			
Sampling speed	1 second and 3 seconds optional			
Number of data records	16 sets of data can be stored, a total of 16000 data points, and a single set of data has up to 8000 data points.			

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Tai'an Panran Measurement&Calibration Technology Co.,Ltd.

Communication	2.4G wireless (Use the ZigBee protocol)
Wireless communication distance	The straight-line distance from the transmitter in the same space is greater than 30 meters
Duration	When wireless communication and backlight are turned off: $\geq 1400$ hours When wireless communication is turned on: $\geq 700$ hours
Battery type	Three AAA alkaline batteries
Device dimensions	104mm×46mm×30mm
Operation environment	-10°C ~ 50°C
Warm-up time	Valid after 1 minute of warm-up

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