






Temperature and Humidity Acquisitor Overview

Since the launch of the first PR200 series temperature and humidity acquisitor in 2007, PANRAN has successively launched seven series of temperature and humidity automatic inspection/collection devices, which are widely used in the temperature or temperature and humidity uniformity test process of various constant temperature and humidity environments such as heat treatment furnaces and environmental test chambers. According to the differences in test requirements and operating habits, they differ in sensor connection methods, measurement accuracy, channel error, data and human-computer interaction operations, but all have the characteristics of high reliability, simple operation, compact and portable, and built-in electrical measurement.

The following is a comparison of technical parameters of some conventional series products:

Item\Product series	PR201	PR203	PR204	PR206A	PR206B
Product picture					
Accuracy	0.01%RD+7μV 0.01%RD+20mΩ	0.01%RD+5μV 0.01%RD+7mΩ	0.01%RD+7μV 0.01%RD+7mΩ	0.01%RD+6μV 0.01%RD+12mΩ	/ 0.01%RD+20mΩ
Max. deviation between channels	4μV, 5mΩ	1μV, 1mΩ	4μV, 2mΩ	2μV, 3mΩ	10mΩ
Switch type	Relay	Relay	Relay	Relay	Analog switch
Max. number of channels on the host	30 multi-function channels	32-channel thermocouples or 16-channel thermal resistors, 5-channel humidity transmitters	24 multi-function channels	12 multi-function channels	12-channel thermal resistors or humidity transmitters
Thermocouple measurement input protection	250V	220V	250V	220V	36V
Wiring method	Smart junction box	Standard terminal block	Intelligent connector	Self-locking connector	Self-locking connector
Weight	1.7kg	1.5kg	1.6kg	0.28kg	0.21kg
Screen specifications	Industrial grade 5.0-inch TFT color screen			1.2-inch segmented LCD screen	
Communication	WIFI(Optional), RS232			Bluetooth, Type-C	

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

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method					
Storage	Internal FLASH+U disk		Internal FLASH		
Charging port	DC5.5		TYPE-C		
Battery duration	11~14 hours				
Scope of application	Multiple constant temperature and humidity spaces to be tested can be calibrated simultaneously, and the sensors do not need to be replaced frequently	Scenarios where there are high requirements for measurement accuracy or where sensors need to be replaced frequently	Users who need to replace sensors frequently or are accustomed to using plug-in sensors	Scenarios with high requirements for portability, allowing the use of wireless and mobile phones, and distributed testing scenarios	The scenarios where only platinum resistance sensors are used to measure temperature
Advantages	The smart junction box allows quick sensor connection, and the internal structure of the junction box prevents wire breakage	The electrical measurement and reference terminal compensation are highly accurate	Use the smart connector to quickly connect any number of sensors	Compact size, lightweight, high measurement accuracy, can be stored together with the sensor.	High cost effective

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