

HT824 - Process Calibrator

HT824 multifunctional process calibrator has high accuracy, high stability, can be widely used in site calibration of industry instruments and equipment in laboratory. Powerful functions, it can simulate to output voltage in millivolt and volt, current in milliampere, and many types of electric signals needed by the measurement and control during industry control process. It can also test or simulate kinds of TC and RTD signals.



Features

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- 5 1/2 digit input/output display.
- Manual/auto cold junction compensation and setting.
- The temperature value can be directly measured/output.
- Auto power off when the voltage of battery is low.
- Apply advanced built-in battery management system. 7.4V/7800mAh lithium battery, which can easily last for over 8 hours during site measurement work.
- Auto triangular wave/step wave signal output.
- It can store 8 sets of measurement and output data, and recall it to display. All the setting value and the function in the last operation can be saved automatically after power-off.
- The screen shows the connection diagram of probes and plugs to avoid wrong operation. It has backlight.
- The output has manual/auto step and slope output function. It can arbitrarily set the value of 0%, 25%, 100% in the range of signal output to test the response speed of transmitter.
- Application field: measurement and calibration of instruments, maintenance and overhaul of temperature instruments, automatically maintenance and overhaul, project construction debugging, detection and diagnosis of control system signal source, configuration of site instrument repairmen room, matching of the thermal engineering laboratory in electric power industry.

Specification.

Model	HT824		
DC Voltage Measurement			
Range	0-30.000V (Upper part of screen	0-24.000V (Bottom of	0-90.000mV

) *1		screen) *2	
Resolution	0.001V		0.001V	
Accuracy	0.1%+5		0.05%+5	
*1和*2: Input resistance is greater than 1MΩ				
DC Voltage Output				
Range	0—20.000V		0—90.000mV	
Resolution	0.001V		0.001mV	
Accuracy	0.05%+5		0.05%+5	
Millivolt measurement and output*1				
Range	-10.000mV—80.000mV			
Resolution	0.001mV			
Accuracy	0.05%+5			
*1 Press TC(16) to select this function. Signal is at thermocouple micro input/output TC port.				
DC Current (milliampere) Measurement				
Range	0—24.000mA (Upper part of screen) *1		0—24.000mA (Bottom of screen) *2	
Resolution	0.001mA		0.001mA	
Accuracy	0.05%+5		0.05%+5	
DC Current (milliampere) Output				
Range	0—24.000mA			
Resolution	0.001mA			
Accuracy	0.05%+5			
SIMU (Simulation) When outputting current, external voltage is greater than 12V, less than 28V.				
SOUR (Source) When outputting current, signal driving ability is 1000Ω in 20mA.				
Resistance Measurement				
Ohm Range			0—400.00Ω	400.0—4000.0Ω
Accuracy ±Ω	4 Wire (4W)		0.02%+5	0.02%+5
	2 Wire (2W) and 3 Wire (3W)		0.05%+5	0.05%+5
Excitation current: 0.2mA.				
Maximum input voltage: 30V.				
2 Wire: Do not include wire resistance.				
3 Wire: Assume to use the matched testing wire, the total resistance cannot be greater than 100Ω.				
Resistance output				
Range	5.00Ω—400.00Ω			400.0—1500.0Ω
Excitation current from the measurement instrument	0.15mA-2mA			0.05mA-0.8mA
Accuracy ±Ω	0.05%+5			0.05%+5
Resolution	0.1Ω			0.1Ω
Temperature - Thermocouple				
Type	Range		Resolution	Measurement and output accuracy ±℃
S	-50.0℃ to 0℃		0.1℃/0.1℉	2℃
	0℃ to 500.0℃		0.1℃/0.1℉	1.5℃
	500.0℃ to 1760.0℃		0.1℃/0.1℉	1.3℃
R	-50.0℃ to 0℃		0.1℃/0.1℉	2℃
	0℃ to 500.0℃		0.1℃/0.1℉	1.5℃
	500.0℃ to 1760.0℃		0.1℃/0.1℉	1.3℃
B	200℃ to 800℃		1℃/1℉	2.5℃
	800℃ to 1800℃		1℃/1℉	2.3℃
K	-200.0℃ to 1370.0℃		0.1℃/0.1℉	1.3℃
N	-200.0℃ to 1300.0℃		0.1℃/0.1℉	1.3℃
E	-200.0℃ to 1000.0℃		0.1℃/0.1℉	1℃
J	-200.0℃ to 1200.0℃		0.1℃/0.1℉	1℃
T	-200.0℃ to 400.0℃		0.1℃/0.1℉	1℃
Thermocouple adopts ITS-90				
If open cold junction compensation, there should be additional ±0.5℃				
Temperature - Thermal resistance				
Type			Accuracy ±℃	
	Range		Testing 4 wire ℃	Testing 2 wire and 3 wire ℃ Output ℃

Pt100-385	-200.0℃-850.0℃	0.8℃	1℃	0.8℃
Pt100-3926	-200.0℃-850.0℃	0.8℃	1℃	0.8℃
Pt100-JIS	-200.0℃-850.0℃	0.8℃	1℃	0.8℃
Pt200-385	-200.0℃-250.0℃	0.7℃	0.8℃	0.7℃
	250.0℃-630.0℃	1.3℃	2.1℃	1.3℃
Pt500-385	-200.0℃-500.0℃	0.8℃	1.1℃	0.8℃
	500.0℃—630.0℃	1℃	1.5℃	1℃
Pt1000-385	-200.0℃-100.0℃	0.7℃	0.7℃	0.8℃
	100.0℃-630.0℃	0.7℃	0.8℃	0.8℃
Cu100	-50.0℃-150.0℃	1℃	1.2℃	1℃
Cu50	-50.0℃-150.0℃	1℃	1.2℃	1℃
Resolution: 0.1℃, 0.1°F				
Allowable excitation current(output): Pt100-385, Pt100-392, Pt100-JIS, Pt200-385:0.15 to 3.0 mA				
Pt500-385:0.05 to 0.80mA;Pt1000-385:0.05 to 0.40mA				
2 Wire: Do not include wire resistance.				
3 Wire: Assume to use the matched testing wire, the total resistance cannot be greater than 100Ω.				
Comprehensive Index				
Operation temperature	0℃ to 50℃			
Storage temperature	-20℃ to 70℃			
Operation height	Average elevation 3000 meters below.			
Relative humidity (No condensation relative work humidity %)	75%(30℃ to 40℃)			
	45%(40℃ to 50℃)			
	35%(50℃ to 55℃)			
	<10℃, no control			
Stability	Out of the range 23±5℃, each degree increase ±0.005% of the range.			
Vibration	The random vibration, 2g,5 to 500Hz			
Security	EN 61010-1:1992			
Protection Level	Pollution grade II			