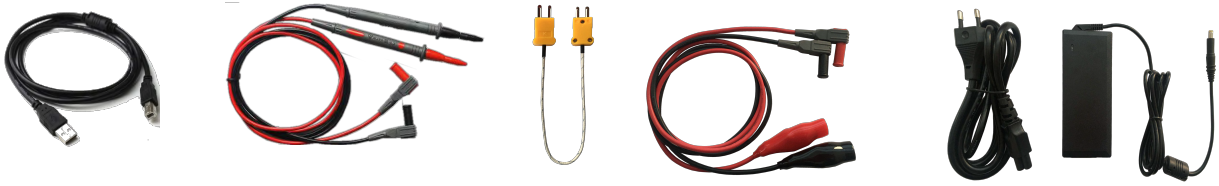
Multifunction Process Calibrator

Half 5 Bit Input/Output Display

HT824

Accessories



Features

- Powerful functions, it can simulate to output voltage in millivolt and volt, current in milliampere.
- 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.
- 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.
- Auto triangular wave/step wave signal output.

Specification

Model	HT824		
DC Voltage Measurement			
Range	0-30.000V (Upper part of screen) *1	0-24.000V (Bottom of screen) *2	0-90.000mV
Resolution	0.001V	0.001V	0.001mV
Accuracy	0.1%+5	0.05%+5	0.05%+5
*1 and *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	Range	Accuracy ±℃		
		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°C, 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