



# Frequency Temperature Resistance V mV mA Process Calibrator

BRT LB02A Process calibrator is a high precision reliable mV mA V frequency temperature signal debugging tool with measuring meter function. It can output and measure 0-20mA 0-10V 0-110mV 24V signal, thermocouple signal, PT100, Cu50 RTD signal, resistance signal, etc. And it is widely used as mV mA calibrator, temperature calibrator, frequency signal calibrator, 4-20mA loop calibrator, multimeter, etc. It supports full function operating mode and user-defined output setting. The signal calibrator can output user-defined signal when user enters into signal value through digit buttons. This process calibrator has color LCD screen, large capacity rechargeable battery, refined external shell, simple buttons layout, it is an ideal low-cost precision process controlling signal calibration instrument for field technical engineers.



## Description

BRT LB02A Process calibrator is a precision reliable multifunction signal generator and a simplified digital multimeter all-in-one. It outputs 0-24mA, 0-11V, 0-110mV, 0-10KHz, 20-400Ω, type K, J, N, T, E, S, B, etc. thermocouple signal, CU50 PT100 PT1000 signal, 24V signal, etc., and measures 0-30mA, 0-30V, 0-150mV, 0-10KHz frequency signal, 0-999.9Ω, thermocouple signal, RTD Cu50 PT1000 PT100 signal, etc. It can output the rated signal when user enters into a signal value through digit buttons. Its color LCD screen displays the signal value and operating status clearly and precisely. Inside the calibrator, there is 4 units of PPTC and a quick-break fuse to protect the process calibrator from accident damages. This calibrator is an essential choice in industrial site, and the worthiest replacement calibration tool instead of the expensive calibrator from other bands.

### Main Features & Benefits

- Pocket portable shell: 120x76x30mm, put it into your pocket, save energy, save cost, very convenient to carry.
- High accuracy 0.025%+1/2 digits; widely used as frequency calibrator, mA mV loop calibrator, temperature calibrator, etc.
- Have full-function operating mode, user can enter any value through digits buttons, the calibrator outputs signal directly.
- Signal output simulation and measurement: 0-10KHz frequency, 4-20mA source or passive signal, 0-11V, 0-110mV, 20-400Ω, standard R, E, S, K, J, B, T, N type thermocouple, PT100, PT1000, CU50, 24V outputs, etc.
- 2200mAH re-chargeable battery inside, have battery status bar, very suitable and convenient to use it in indoors or outside industrial site.
- High resolution color LCD screen with back light for different lighting conditions, large screen clear display.
- Can be used as signal generator, frequency calibrator, multifunction process calibrator and simple digital multimeter.
- Have description in Hz, V, mV, mA, RTD, TC, Step, and Ω keys, it enables user to operate it easily.
- Precision AD, DA, reference voltage chips, OP circuits are used to ensure high accuracy, high performance and stability.
- Using 4 units of PPTC and a quick-break fuse to protect the instrument from damages caused by high voltage.

### Output Parameters (\*No Hart, Modbus function)

FUNC	OUT UNIT	RANGE	SET STEP	ACCURACY (SP: setting point)
DC. V	V	0~11.00V	0.01/0.1/1	±0.025%SP ±0.004V
DC. mV	mV	0~110.00mV	0.1/1/10	±0.025%SP ±0.02mV
DC. mA	Sink/Source/Program	0~24.00mA	0.01/0.1/1/4	±0.025%SP ±0.004mA
Ohm	Ω	0~400Ω	1/10/100	±0.025%SP ±0.3Ω
		400~2200Ω	1/10/100	±0.05%SP ±1.5Ω
Frequency	KHz	0-10	0.01/0.1/1	±0.05%SP ±2Hz
TC	R	0~1700℃	1/10/100	±0.1%SP ±3℃
		S		±0.1%SP ±3℃
		B		±0.05%SP ±0.5℃ (K)
		K		±0.05%SP ±0.3℃ (E)
	E	-200~1000℃		±0.05%SP ±0.4℃ (J)
				±0.05%SP ±0.5℃ (T)
				±0.05%SP ±0.8℃ (N)
	J	-200~1200℃		
	T	-200~400℃		
RTD	PT1000	-50~300℃	1/10/100	±0.1%SP ±0.5℃
	Pt100	-200~850℃		±0.1%SP ±0.8℃
	Cu50	-50~150℃		±0.1%SP ±1.5℃
24V	24V	24V: Cannot be set.	NONE	
	mA	Current measurement:0~24.000mA		

### Measurement Parameters

FUNC	UNIT	RANGE	RESOLUTION	ACCURACY (RD: Read number)
DC.V	V	-30~30.000V	0.001V	±0.025%RD ±0.004V
DC. mV	mV	-150~150.00mV	0.01mV	±0.025%RD ±0.02mV
DC. mA	mA	-30~30.000mA	0.001mA	±0.025%RD ±0.004mA
Ohm	Ω	0~999.9Ω	0.1Ω	±0.025%RD ±0.2Ω
		1000-2500	1Ω	±0.025%RD ±1Ω
Frequency	KHz	0-10	0.001	±0.05%RD ±2Hz
TC	R	0~1700℃	0.1℃	±0.1%RD ±3℃ (R,S,B)
		S		±0.1%RD ±3℃ (R,S,B)
		B		±0.025%RD ±0.5℃ (K)
		K		±0.025%RD ±0.3℃ (E)
	E	-200~1000℃		±0.025%RD ±0.4℃ (J)
				±0.05%RD ±0.5℃ (T)
				±0.025%RD ±0.8℃ (N)
	J	-200~1200℃		
	T	-200~400℃		
RTD	PT1000	-50~300℃	0.1℃	±0.1%RD ±0.5℃
	Pt100	-200~850℃		±0.1%RD ±0.8℃
	Cu50	-50~150℃		±0.1%RD ±1.5℃
Range switch	mA	0~9990 engineering unit (for current measurement and measure the current of 24V output)	Max. 4, Min. 1 (related to engineering quantity.)	