

With the ProMax LB02A Multifunction Process Calibrator, you can easily source and measure almost any process parameter and process device sensors. Measure and source mA, volts, temperature (RTDs and thermocouples), frequency and ohms.

Whether you're calibrating instruments, troubleshooting a problem or running routine maintenance, ProMax LB02A process calibrators can help you get the job done faster. It does so many different tasks, so quickly and so well, it's the only process calibrator you need to carry

ProMax LB02A can generate the following signals -

- DC Voltages from 0 to 11V & DC Mini Voltages from 0 to 110mV
- Current Signals from 0 to 24mA
- Resistance from 0 to 2200 ohms
- Frequency 0 to 10Hz
- Thermocouple Simulation Signal
- RTD like PT100, PT1000, Cus50
- 24V Fixed Voltage for Testing

ProMax LB02A is ready to perform as a powerful, yet easy-to-use field calibrator. Its simple controls, with menus, make operation easy and the backlit display provides better visibility in poor light. It features a small, streamlined shape and a rugged, reliable design that makes it ideal for standing up to harsh field conditions.

Applications

- **Multifunctional Sensor Calibrator:** Calibrate temperature, pressure, voltage, current, resistance, and frequency. Since it both measures and sources, you can troubleshoot and calibrate all with one rugged tool
- **Multifunctional Sensor Simulator:** Simulate multiple sensors for troubleshooting and debugging systems. Using this calibrator, engineers can identify the fault in the sensor, controller or wiring by simulating sensor output signals and running carrying out test procedures.
- **Hand-Held Operation.** Small enough to fit easily into a tool bag and to use in tight spaces. Runs an entire shift on a rechargeable Li-ion battery pack. Great for testing on the field.
- **2 operating modes:** Measure & Source (generate) —enable technicians to troubleshoot, calibrate, or maintain instrumentation with just one tool.



- The signal calibrator can output a user-defined signal when a user enters into signal value through digit buttons.
- Simulation and measurement of thermocouple and temperature sensors like PT100, PT1000, CU50.. etc.
- Debugging of industrial field PLCs
- Process Instrumentation: Signal Generators, Signal measurement, Valve Adjustment, Inverter control
- PLC & Control Panel debugging by bypassing sensors and sensor calibrations
- LED & Equipment Testing or Control

Versatile Troubleshooting Tool

Engineers can power Sensor Transmitters under test using the inbuilt 24V loop supply with simultaneous mA measurement so you can test a transmitter out of the circuit and better isolate problems.

Source mA with simultaneous pressure measurement to conduct valve and I/P (Input current/Output pressure) tests in a single device. You can also test flow meters with frequency and CPM (counts per minute) functions and perform fast linearity tests with auto-step and auto-ramp features so you can quickly verify the mA signal at different output levels.

It can output and measure 4 to 20mA Current, Voltage, Frequency Pulses, Thermocouple and RTD Sensor. It is widely used as an 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.

Features

- High accuracy of 0.025% +1/2 digits; widely used as frequency calibrator, mA mV loop calibrator, temperature calibrator, etc.
- Have a full-function operating mode, the user can enter any value through digits buttons, and the calibrator outputs a 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, CU50, 24V outputs, etc.
- Offers easy and convenient handheld operation. 2200mAH rechargeable battery inside, has battery status indicator, very suitable and convenient to use indoors or outdoors in industrial sites.
- High-resolution colour LCD display, has backlight for different lighting conditions, large screen clear display
- Can be used as signal generator, frequency calibrator, and multifunction process calibrator.
- Have description in Hz, V, mV, mA, RTD, TC, Step, and Ω keys, it enables the user to operate it easily
- Internal polarity Reverse connection and Over current protection; Protection voltage 30V

Technical Specifications

Output Parameters

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	1/10/0100	±0.025%SP ±0.3Ω		
		400~2200Ω	1/10/0100	±0.05%SP ±1.5Ω		
Frequency	KHz	0-10	0.01/0.1/1	±0.05%SP ±2Hz		
TC	R	0~1700℃	1/10/0100			
	S	0~1600℃				
	B	500~1800℃		±0.1%SP ±3℃		
	K	-200~1370℃				
				±0.05%SP ±0.5℃ (K)		
				±0.05%SP ±0.3℃ (E)		
				±0.05%SP ±0.4℃ (J)		
				E	-200~1000℃	
				J	-200~1200℃	±0.05%SP ±0.5℃(T)
	T	-200~400℃				
	N	-200~1300℃		±0.05%SP ±0.8℃ (N)		
RTD	PT1000	-50~300℃	1/10/0100	±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. Current measurement:0~24.000 mA	NONE			
	mA					

Measurement Parameters

FUNC	UNIT	RANGE	RESOLUTION	ACCURACY (RD: Read number)
DC.V	V	-30~30.000V	0.001V	$\pm 0.025\%RD \pm 0.004V$
DC. mV	mV	-150~150.00mV	0.01mV	$\pm 0.025\%RD \pm 0.02mV$
DC. mA	mA	-30~30.000mA	0.001mA	$\pm 0.025\%RD \pm 0.004mA$
Ohm	Ω	0~999.9 Ω	0.1 Ω	$\pm 0.025\%RD \pm 0.2\Omega$
		1000-2500	1 Ω	$\pm 0.025\%RD \pm 1\Omega$
Frequency	KHz	0-10	0.001	$\pm 0.05\%RD \pm 2Hz$
TC	R	0~1700°C	0.1°C	$\pm 0.1\%RD \pm 3^\circ C (R,S,B)$
	S	0~1600°C		
	B	500~1800°C		
	K	-200~1370°C		$\pm 0.025\%RD \pm 0.5^\circ C (K)$ $\pm 0.025\%RD \pm 0.3^\circ C (E)$ $\pm 0.025\%RD \pm 0.4^\circ C (J)$ $\pm 0.05\%RD \pm 0.5^\circ C (T)$ $\pm 0.025\%RD \pm 0.8^\circ C (N)$
	E	-200~1000°C		
	J	-200~1200°C		
	T	-200~400°C		
	N	-200~1300°C		
RTD	Pt1000	-50~300°C	0.1°C	$\pm 0.1\%RD \pm 0.5^\circ C$
	Pt100	-200~850°C		$\pm 0.1\%RD \pm 0.8^\circ C$
	Cu50	-50~150°C		$\pm 0.1\%RD \pm 1.5^\circ C$
Range switch	mA	0~9990 engineering unit (for current measurement and measure the current of 24V output)	related to engine	

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