

## Signal generator process calibrator SG03 & SG04

### Introduction



The SG003A & SG004A signal generators are high-performance device aimed at the industrial control industry. The devices are programmable so that can generate various of signals such as voltage, current, pulse waves, thermocouple voltage and thermal resistance. The signals sources can help engineer to simulate industrial control variable like motor anomaly, aging test for magnetic/pneumatic valve, NTC/thermocouple simulation and PLC program debugging, etc.. The 24V output is independent which can be used as 24V power supply and combine to its inputs ports can be used as loop testing. In addition to above, the devices are also a process calibrator, it's really a cost-effective specialized instrument handle various working conditions with one device.

### Features

- 1- Provide physical values and scale percentage, the scale is defined by user, which is convenient to diagnosis industrial analog.
- 2- Provide 4 groups preset signal values, which could help user to fast calling preset outputs.
- 3- Convert input signal into output signal, which can be converted between different physical quantities
- 4- Programmable by 3 modes operation: monotonous rise, monotonous fall and cycle
- 5- Able to communicate with configuration software/PLC via RS485.
- 6- Firmware is able to be upgraded by USB.
- 8- 2.4 Inch TFT full color LCD display, with adaptive real-time curve display technology to help user easy to read curve datas.
- 9- 3000mAh battery, standby time up to 24 hours.
- 10- Languages: English/Chinese

### Application features



TAKE IT WITH YOU



TFT FULL COLOR HD DISPLAY



SUITABLE FOR VARIOUS WORKING CONDITIONS



Pulse wave generating



SG03



SG04

### Technical Specifications

		SG-003A	SG-004A
In-put	Current(mA)	range: 0~24mA $\pm(0.1\%+0.005)$ ; resolution: 0.01mA	
	Voltage(V)	range: 0~24V $\pm(0.1\%+0.005)$ ; resolution: 0.01mV	
	Frequency (Hz)	/	Freq./PWM/RPM/count; 0~10KHz
	Thermocouple (mV)	/	mV: WRE25/26; TC-S/B/K/R/J/T/N
	Thermal resistance ( $\Omega$ )	/	ohm ( $\Omega$ ): Pt100: -200~650°C CU50: -20~150°C RES: 0~390 $\Omega$

Out-put	Current(mA)	Range:0~24mA/4~20mA/0~20mA/ 0~10mA/USER $\pm(0.1\%+0.005)$ , resolution: 0.01mA; 750 $\Omega$ MAX; Option voltage: 12/24V	Range:0~24mA/4~20mA/0~20mA/ 0~10mA/USER $\pm(0.02\%+0.003)$ , resolution: 0.001mA; 750 $\Omega$ MAX; Option voltage: 12/24V
	Voltage(V)	Range: 1~5V/0~5V/0~10V/0~24V/ USER $\pm(0.1\%+0.005)$ ; Over-current protection ?A; resolution: 0.01V	Range:1~5V/0~5V/0~10V/0~24V/ USER $\pm(0.02\%+0.003)$ ; Over-current protection ?A; resolution: 0.001V
	XMT(mA)	range: 0~24mA; support percentage scale convert by user	
	Frequency (Hz)	type: Freq./PWM/RPM/counts; range: 0~9999Hz $\pm 2\%$ ; resolution: 5bits	
	Voltage(24V)	24V with option output: non-volatile memory	
	Thermocouple (mV)	/	mV: WRE25/26; TC-S/B/K/R/J/T/N
	Thermal resistance ( $\Omega$ )	/	ohm ( $\Omega$ ) : Pt100: -200~650°C CU50: -20~150°C RES: 0~390 $\Omega$
Preset values		4 groups values calling via left/right/up/down button	
Programing type		Monotonous rise, monotonous fall and cycle	
Real-time curve		Auto Zoom	
MODBUS slave		Communicate with configuration software or PLC via RS485	
Historical record		/	30 groups
<b>General Characteristics</b>			
		SG-003A	SG-004A
Product color		Blue	Yellow
Product size		112*82*28mm	
Display		2.4-inch TFT Full Color LCD Screen	
Battery		3.7V/3000mAh Lithium battery	
Standard accessories		Main Device*1, Test Clip*4, Data Cable*1, Charger*1, Manual*1	
Product net weight		180g	
Standard carton		48*45.5*32cm	
Carton gross weight		15kg	
Quantity per carton		30PCS	