



SPMK
斯贝克 INSTRUMENT

Professional Manufacturer of Pressure/
Temperature Calibration Instruments

Beijing Spake Technology Co.,Ltd.

Beijing Spake Technology Co., Ltd is one of the most professional manufacturers of calibration instruments in China with 25 years' experience. We have been successfully manufactured Pressure/Temperature calibration instruments such as high accuracy Digital Pressure Gauge, Pressure Calibrator, Pressure Calibration Comparator Pumps as well as Process Calibrator and Temperature Calibrator Dry Blocks. So far "SPMK" brand calibration instruments have been used in over 100 countries worldwide and enjoy good reputation.

With the corporate philosophy of "Accurate Calibration, Perfect Service" going forward, we will continue developing high quality calibration instruments with the best service to more and more customers worldwide.



Headquarter

6F Jinyanlong Plaza, Haidian District, Beijing,
100096, China.

Tel: +86-10-62719945

www.bestcalibrator.com

www.spmkcalibrator.com

Production Base

B26, Economic and Technology Development
Zone, Henan Province, 453000, China

Tel: +86-373-7883360/61

Fax: +86-373-7883368

International Sales Manager

Marilyn

Email: sales@bestcalibrator.com

M: +8615210919985

(Whats App / We Chat)

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SPMK221G Automatic Pressure Calibrator

SPMK221G automatic pressure calibrator has function of pressure generation, pressure measurement, electrical signal measurement/output, and HART communication. It is suitable for pressure calibration in the field. SPMK221G can help to complete the calibration of pointer pressure gauge, pressure transmitters, pressure switches and HART pressure instruments.



Main Feature

- Built-in automatic pressure generating source;
- Built-in rechargeable battery/220V AC;
- Box-type instrument, easy to carry;
- HART communication/24V DC Supply/Temperature Compensation Automatically/Pressure Switch Testing/External Pressure Module optional.

Technical Data

Display Screen:	5.6 x LCD Screen (640×480); 4/5/6 digit display optional
Pressure Port:	2pcs x M20×1.5 F, 1/4NPT, 1/4BSP, 1/2NPT, 1/2BSP optional
Dimension:	(385×298×196) mm
Weight:	11.0kg

	Range	Resolution	Accuracy
Voltage measurement	(-30~30)V	0.1mV	±(0.01%RD+0.005%FS)
Current measurement	(-30~30)mA	0.1μA	±(0.01%RD+0.005%FS)
On-off detection	If the switch has the inspection voltage, the voltage range is (3.0~24.0)V		
Current output	(0~22)mA	1μA	±(0.02%RD+0.005%FS)
DC24V	(24±0.5)V, Maximum load capacity 50mA		

Temperature (20±5)°C; One year stability; Storage humidity: <90%; Atmospheric pressure:(86~106)kPa.

Ordering Information

SPMK221G	Pneumatic Type		
Pressure Range	(-0.9~25)bar	(-0.9~40)bar	(-0.9~70)bar
Inner Module 1	(0~25)bar	(-0.9~40)bar	(-0.9~70)bar
Inner Module 2	(-90~250)kPa . Optional	/	/
Accuracy	±0.02%F.S		

SPMK251 Pressure Controller

SPMK251 Intelligent pressure controller uses digital control technology to quickly output high precision and high stability pressure.

It needs to connect with external pressure source (Both N2 bottle and other electrical pressure source). It can calibrate or test pressure gauge, Intelligent HART pressure transmitter, pressure switch.



Main Feature

- Measure voltage, current and switch (on and off), and other electrical signal measurement;
- Built-in voltage (V/mV), current, on-off measurement function and DC24V power supply;
- Built-in standard barometer, gauge pressure and absolute pressure switch;
- Step way setting of pressure output;
- Built-in Profibus communication, pressure gauge calibration Profibus PA bus;
- With HART communication, it can connect with HART instrument;
- Built-in standard pressure module with high accuracy;
- External Pressure module available for calibration;
- 8-inch touch screen, high resolution display in both English and Chinese.

Electrical measuring range and accuracy

	Measure Range	Resolution	Accuracy
Current	(-30 ~ 30)mA	0.0001mA	±(0.01%RD+0.005%FS)
Voltage	(-30 ~ 30)V	0.0001V	±(0.01%RD+0.005%FS)
Voltage	(-300 ~ 300)mV	0.001mV	±(0.01%RD+0.005%FS)
Switch	ON/OFF Testing		
DC24Voutput	(24±0.5)V, max 50mA		

Technical Data

Model	SPMK251/7
Range	(-0.09 ~ 7)MPa
Build in Module	(-0.1 ~ 7)MPa. 0.05%F. S
External Pressure Module	Select according to the pressure instrument under test, the measuring range is not greater than the built-in pressure standard module.
Pressure Type	Gauge Pressure/Absolute Pressure
Media	Air/Nitrogen gas
External Pressure Source	Max Range +1Mpa
Stability Control(30s)	≤0.003%FS
Pressure control over (back) adjustment	Not more than 0.1% of the absolute value of the target pressure
Target pressure stability duration	More than 5 Mins
Control corresponding time (without external load)	30s
Function	V、mV、mA、Switch、Calibrate HART、Profibus PA、DC24V Output
Display Digit	4/5/6 digit display available to switch
Outport Thread	M20x1.5/BSP/NPT
Communication	RS232、USB 、LAN、WIFI
Power	AC220V
Dimension	(410x460x190) mm
Weight	14kg
Storage temperature	(0 ~ 50)°C
Relative humidity	<90% non-condensation
Recommended purchase	SPMK211D/7 Electrical Pressure Source

SPMK211D Automatic Pressure Generator



The SPMK211D/08/7/25 electric pressure generator can quickly generate pressure to the setting range, and can easily complete the calibration of pressure instruments with the SPMK251 intelligent pressure controller.

Main Feature

- The pressure range can be set by yourself within its range;
- The pressure is automatically generated without manual operation;
- Fast and stable pressure generator;
- Pressure and Vacuum can be carried out at the same time efficiently.

Technical Data

Model	SPMK211D/08	SPMK211D/7	SPMK211D/25
Preset Pressure	0.8MPa	(-0.095 ~ 7)MPa	(-0.095 ~ 26)MPa
Pressurization Time	1 min 30secs	1 min 30secs	5mins
Display	LED Display		
Connection	M20x1.5 / NPT / BSP thread Optional		
Weight	50kg	70kg	110kg
Volume	(500x490x580) mm		
Power Supply	AC220V		
Power	0.5kW	1kW	3kW
Storage Environment	(-20 ~ 70)C° < 90% non-condensing		
Use Environment	(-10 ~ 50)C° < 90% non-condensing		

SPMK213G-D Pressure Reducer Calibrator with Electronic Pressure Source



The pressure source of the SPMK213G-D electric pressure reducer calibrator uses digital control technology to generate high-stability pressure quickly. The required pressure is controlled by the precision valve on the console to meet the requirements of field and laboratory calibration works, which also can test gas pressure reducers, ordinary pressure gauges, pressure transmitters, and pressure switches.

Note: SPMK213G reducer calibrator can also work with Nitrogen cylinder as pressure source instead of SPMK211D Electronic Pressure Source.

SPMK213G Pressure reducer calibrator and SPMK211D Pressure Source can be ordered separately.

Main Feature

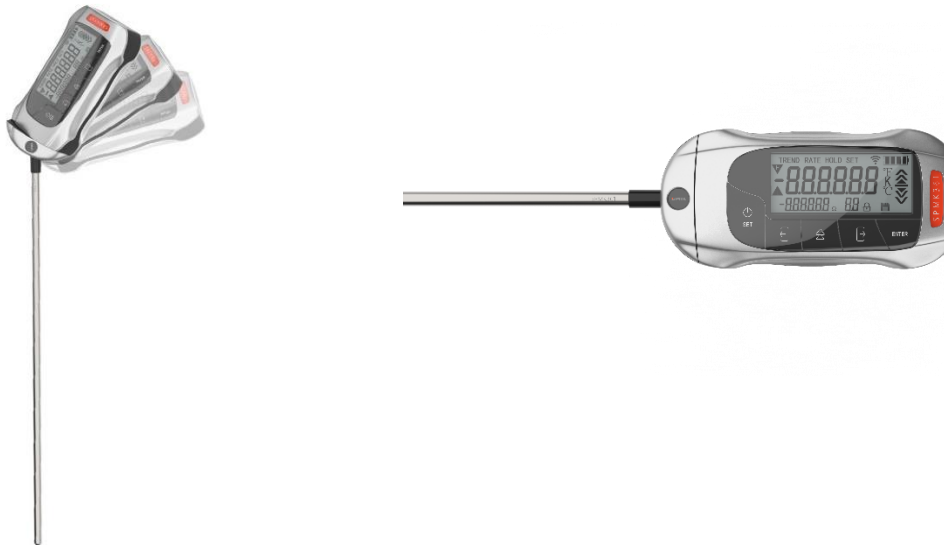
- Automatically output pneumatic pressure continuously;
- Pressure reducer can be calibrated as a whole set without disassemble the pressure gauge;
- It can check and detect the tightness of the gas pressure reducer;
- It can detect the low pressure and high pressure of the gas pressure reducer to determine whether the high and low pressure chambers are connected;
- The safety valve of the gas pressure reducer can be tested;
- The high and low pressure control systems are independent of each other to avoid damage to the low pressure gauge caused by improper operation;
- It is suitable for the calibration of pressure instruments within (0-25) MPa.

Pressure Range

- High pressure range: (0 ~ 25)MPa
- Low pressure range: (0 ~ 6)MPa

SPMK361 Precision Digital thermometer

SPMK361 handheld precision digital thermometer is with high accuracy and good stability, which is a precision temperature measuring instrument for industry temperature measurement and calibration. Temperature measurement range is $(-80 \sim 300)^{\circ}\text{C}$. It can directly display the temperature on the LCD screen, which is very suitable for laboratory and field use.



Main Feature

- Multifunctional and easy to carry;
- Accuracy of 0.05°C annually;
- LCD display Resolution of 0.001°C , the screen can be turned;
- Data storage function, recording time can be selected (2 ~ 3600) seconds;
- Display temperature in $^{\circ}\text{C}$ and $^{\circ}\text{F}$;
- Low power consumption, can work for 1000 hours when wireless communication is closed;
- Collecting frequency is optional (1 ~ 3) seconds.

Technical Data

Range	$(-40 \sim 160)^{\circ}\text{C}; (-80 \sim 300)^{\circ}\text{C}$	Relative humidity	< 90% non-condensation
Power supply	lithium battery USB power supply	Size of display part	(123×60×30) mm
Annual stability	0.05°C	Sensor size	300 / 500mm
Usage temperature	$(-10 \sim 50)^{\circ}\text{C}$	Weight	Around 400g

SPMK991T Automatic Pressure Calibration Bench

SPMK991T series intelligent pressure source system can generate stable pressure automatically during the pressure calibration process. It is widely used in calibration of pressure (differential pressure) transmitters, precision (ordinary) pressure gauges, vacuum gauges, electrical contact pressure gauges and other pressure instruments.

SPMK991T Pressure Source System is an ideal instrument for pressure measurement and calibration industry.



Main Feature

- Auto pressure generation, dynamic balance tech, Instant pressure stabilization without leakage;
- High-precision pressure regulating valve;
- Three instruments can be tested at one time;
- Small noise and easy to operate.

Technical Data

SPMK991T / Vacuum	Range of -95-0 kPa, Fine Adjustment 0.01kPa
SPMK991T / Pneumatic	Range of 0-40 bar, Fine Adjustment 0.1kPa
SPMK991T / Hydraulic	Range of 0-700 bar, Fine Adjustment 0.01Mpa
Weight	45-65kg
Dimension	(1050x700x620)mm;
Power	600W
AC power	220V

SPMK700 Digital Pressure Gauge-Reference Gauge

SPMK700 precision digital pressure gauge is a single range, micro power consumption pressure indicator, which has large LCD screen and with high accuracy and stability. The standard RS232 interface can be used for data transfer into computer by our data logger software.

It can be working as a reference gauge, connect with SPMK Pressure comparator pump for pressure calibration of different pressure range.



Main Feature

- Large LCD Screen with backlight and temperature display;
- Percentage bars indication for visual reference;
- Pressure types: Gauge pressure, absolute pressure, differential pressure, compound pressure;
- Zero function, Peak function;
- 11 pressure units available: kg/cm², inHg, inH₂O, Pa, kPa, MPa, bar, mbar, psi, mmHg, mmH₂O;
- Six digits resolution display switch;
- Storage 40 files,40 data per file;
- Pressure types: Gauge pressure, absolute pressure, differential pressure, compound pressure;
- Connection tread of M20, NPT, BSP Optional.

Technical Data

- **Pressure range / Accuracy**
(-0.1~250)MPa
Pressure range and accuracy refer to page 19
- **Working Condition**
Working temperature: (0 ~ 50) °C with temperature compensation
Relative humidity: <90% no condensation
Atmosphere Pressure: (86 ~ 106) kPa
- **Power Supply**
7.4V rechargeable lithium battery, AC adapter
- **Dimension**
Header (Ø120×45) mm, total length 190mm
Net weight: 0.7kg

SPMK223 Pressure Calibrator

SPMK223 intelligent digital pressure calibrator is a powerful pressure calibrator with high accuracy, which is mainly used to calibrate pressure (differential pressure) transmitter, ordinary (precision) pressure gauge, pressure switch, other pressure instruments.

Main Feature

- Six digits resolution display switch;
- Storage 40 files,40 data per file;
- Percentage bars indication for visual reference;
- RS232 interface to connect with computer for datalogger;
- HART Communication to calibrate HART Pressure transmitter with 24V supply;
- 11 pressure units available: kg/cm², inHg, inH₂O, Pa,kPa Mpa, bar, mbar, psi,mmHg,mmH₂O;
- Connection tread of M20, NPT, BSP Optional.



Technical Data

	Range	Accuracy
Current Measure	(-30 ~ 30)mA	±(0.01%RD+0.003%FS)
Voltage Measure	(-30 ~ 30)V	±(0.01%RD+0.003%FS)
Temperature	(0 ~ 50)°C	±1 °C
DC24V output	(24±0.5) V, max 50mA	

- **Pressure range / Accuracy**
(-0.1~250)MPa
Pressure range and accuracy refer to page 19
- **Working Condition**
Working temperature: (0 ~ 50) °C with temperature compensation
Relative humidity: <90% no condensation
Atmosphere Pressure: (86 ~ 106) kPa
- **Power Supply**
7.4V rechargeable lithium battery, AC adapter
- **Dimension**
Header (Ø120× 45) mm, total length 190mm
Net weight: 0.7kg

Portable Pressure Comparator

SPMK212C Low Pressure Comparator 0.5bar 7psi

Type: Pneumatic

Pressure range: (-0.5~0.5)bar; (-7~7)psi

Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female

Dimension: (240×130×130) mm

Net weight: 1.5 kg

Accessories: Plugs, O rings, Carrying Case(optional)

(The vacuum can be 40% of the local atmospheric pressure)



SPMK213C Low Pressure Comparator 1bar 15psi

Type: Pneumatic

Pressure range: (-0.7~1)bar; (-10~15)psi

Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female

Dimension: (305×205×140) mm

Net weight: 3.0 kg

Accessories: Plugs, O rings, Carrying Case(optional)

(The vacuum can be 40% of the local atmospheric pressure)



SPMK213B Low Pressure Comparator 6bar 90psi

Type: Pneumatic

Pressure range: (-0.95~6) bar; (-14~90)psi

Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female

Dimension: (298×179×154) mm

Net weight: 2.6Kg

Accessories: Plugs, O rings, Carrying Case(optional)

(The vacuum can be 95% of the local atmospheric pressure)



SPMK213H Pressure Comparator 40bar 600psi

Type: Pneumatic

Pressure range: (-0.95~40)bar; (-14~600)psi

Connection: M20×1.5,1/4NPT/BSP,1/2NPT /BSP Female

Dimension: (298×179×154) mm

Net weight: 2.6Kg

Accessories: Plugs, O rings, Carrying Case(optional)

(The vacuum can be 95% of the local atmospheric pressure)



SPMK213E High Pressure Comparator 70bar 1000psi

Type: Pneumatic
Pressure range: (-0.95~70)bar, (-14~1,000)psi
Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female
Dimension: (400×262×170) mm
Net weight: 5.5Kg
Accessories: Plugs, O rings, Carrying Case(optional)



SPMK213E High Pressure Comparator 100bar 1500psi

Type: Pneumatic
Pressure range: (-0.95~100)bar, (-14~1,500)psi
Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female
Dimension: (400×262×170) mm
Net weight: 5.5Kg
Accessories: Plugs, O rings, Carrying Case(optional)



SPMK214E High Pressure Comparator 160bar 2320psi

Type: Pneumatic
Pressure range: (-0.95~160)bar, (-14~2,320)psi
Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female
Dimension: (470×262×170) mm
Net weight: 6.0Kg
Accessories: Plugs, O rings, Carrying Case(optional)



SPMK214L Water Pressure Comparator 700bar 10000psi SPMK214L Oil Pressure Comparator

Type: Hydraulic (Oil / Distilled Water, Two types of pumps)
Pressure range: (0~700)bar, (0~10,000)psi
Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female
Dimension: (384x198×180) mm
Net weight: 4.7Kg
Accessories: Plugs, O rings, Carrying Case(optional)



Desk-top Pressure Comparator

SPMK2000E Pneumatic Pressure Comparator 60bar 900psi

Type: Pneumatic
Pressure Range: (-0.95~60) bar, (-14~900)psi
Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female
Dimension: (465×360×246) mm
Net weight: 14Kg
Accessories: Plugs, O rings, Carrying Case(optional)



SPMK990S Water Pressure Comparator 600bar 9000psi SPMK990Y Oil Pressure Comparator

Type: Hydraulic (Oil / Distilled Water, Two types of pumps)
Pressure Range: (0~600) bar, (0~9,000)psi
Connection: M20×1.5,1/4NPT/BSP,1/2NPT/BSP Female
Dimension: (465×370×240) mm
Net weight: 15Kg (0.38L of water/oil cup)
Accessories: Plugs, O rings, Carrying Case(optional)



SPMK990S Water Pressure Comparator 1000bar 15000psi SPMK990Y Oil Pressure Comparator

Type: Hydraulic (Oil / Water, Two types of pumps)
Pressure Range: (0~1,000) bar, (0~15,000) psi
Connection: M20×1.5,1/2NPT/BSP Female
Dimension: (450×380×250) mm
Net weight: 15Kg
Accessories: Plugs, O rings, Carrying Case(optional)
Note: Media drain out and internal circulation two modes available.



SPMK213K Ultrahigh Pressure Comparator 2500bar 36000psi

Type: Hydraulic Oil / Distilled Water Type Customized
Pressure Range: (0~2,500)bar, (0~36,000) psi
Connection: M20×1.5,1/2BSP Female, HP1/4
 (9/16"-18 UNF female, Autoclave F-250-C)
Dimension: (450×380×25) mm
Net weight: 17Kg
Accessories: Plugs, O rings, Carrying Case(optional)



SPMK518/517/516 Process Calibrator

SPMK518 intelligent process calibrator has powerful function. It meets the requirements of calibration, maintenance and repair of thermal instruments. It is the ideal instruments for both filed and calibration tasks.

Main Feature

- Measure voltage, current, resistance, frequency, pulse, switch (on and off),also can use RTD / thermocouple measuring temperature, which are mutual interference;
- Simulate 13 kinds of thermocouple and 11 kinds of RTD measure and output, with cold junction compensation;
- DC24V power supply isolated from measurement and output;
- Build in HART Communication;
- External SPMKSDP Pressure Module as option;
- AC/DC power supply: Battery power is recommended for better performance.



Main Function

		SPMK518	SPMK517	SPMK516
		Intelligent process calibrator	Multi-function process calibrator	Multi-function calibrator
Measurement	Millivolt voltage	●	●	●
	Voltage	●	●	●
	Current	●	●	●
	Frequency	●	●	●
	Pulse	●	●	●
	Resistance	●	●	●
	On- off	●	●	●
	11 RTDs	●	●	●
	13 thermocouples	●	●	●
Simulating	Millivolt voltage	●	●	●
	Voltage	●	●	●
	Current	●	●	●
	Frequency	●	●	●
	Pulse	●	●	●
	Resistance	●	●	●
	Simulate 11 RTDs	●	●	●
Simulate 13thermocouples	●	●	●	
Other Functions	HART communication	●	NOT AVAILABLE	NOT AVAILABLE
	External pressure module①	Need to order separately	Need to order separately	NOT AVAILABLE
	Thermal book	●	●	●
	Step programming output	●	●	●
	24V loop power supply	●	●	●
	Simulating transmitter	●	●	●
	RS232 communication	●	●	●
	Storage	●	●	●

① External pressure module refers to SDP modular intelligent pressure calibrator produced by my company.

Technical Data

Electrical Specifications—Measurement (Ambient temperature (20±5)°C, 1 year accuracy)

Signal	Range	Accuracy	Resolution
Current	(-30-30)mA	±(0.01%RD+0.005%F.S)	0.1μA
Voltage	(-30-30)V	±(0.01%RD+0.005%F.S)	0.1mV
mV	(-75-75)mV	±(0.01%RD+0.005%F.S)	0.1μV
R-3W	(0-400)Ω (0-4000)Ω	±(0.02%RD+0.005%F.S)	1mΩ 10mΩ
R-4W	(0-400)Ω (0-4000)Ω	±(0.01%RD+0.005%F.S)	1mΩ 10mΩ
Frequency	(1-50000)Hz	±(0.005%RD+0.002%F.S)	1Hz
Pulse	0-999999	±1pcs	1
Limit Switch	If the switch has detective voltage, range is (3-24)V		
Thermocouple	K E J T N R S B C D G L U		
RTD	Pt1000(385), Pt500(385), Pt100(385), Pt100(3916), Pt100(3926), Pt10(385) Cu10(427), Cu50(428), Cu100(428), Ni120(672), Ni100(618)		

Electrical Specifications—Source (Ambient temperature (20±5)°C, 1 year accuracy)

Signal	Range	Accuracy	Resolution
Current	(0-22)mA	±(0.02%RD+0.005%F.S)	0.1μA
Voltage	(0-12)V	±(0.02%RD+0.005%F.S)	0.1mV
mV	(-10-100)mV	±(0.02%RD+0.005%F.S)	0.1μV
Resistance	(0-400)Ω	±(0.02%RD+0.005%F.S)	1mΩ
	(400-4000)Ω	±(0.03%RD+0.01%F.S)	10mΩ
Frequency	(0-50000)Hz	±(0.005%RD+0.002%F.S)	0.1Hz
Pulse	0-999999	±1pcs	1
DC24V	24.0±0.5V	N/A	N/A
Simulating Thermocouple	K E J T N R S B C D G L U		
Simulating RTD	Pt1000(385), Pt500(385), Pt100(385), Pt100(3916), Pt100(3926), Pt10(385) Cu10(427), Cu50(428), Cu100(428), Ni120(672), Ni100(618)		

SDP Pressure Module

(External device of SPMK518/7 Process Calibrator)

SDP pressure module is easy to carry and with wide pressure range. It is external device working with SPMK517 / SPMK518 process calibrator for pressure testing and calibration of pressure transmitter, pressure switch, precision pressure gauge, general pressure gauge, pressure sensor and other pressure instruments.



Main Feature

- Easy to carry;
- Tread of M20x1.5M, NPT, BSP optional;
- One process calibrator could with different range of SDP Pressure module;
- Stainless steel shell can be shielding electromagnetic interference.

Technical Data

- Pressure ranges up to 36,000 psi (2,500 bar), **Pressure range and accuracy refer to page 19;**
- Accuracy: $\pm 0.05\%FS$ / $\pm 0.1\%FS$;
- Connection: M20×1.5, 1/4NPT / BSP, 1/2NPT / BSP optional;
- Signal output: RS232, 9600 baud rate, data length 8 digits, no stop bit;
- Communication distance: Wire diameter no less than 0.6mm, max distance 3-5m;
- Operation temperature: 0-50°C;
- Environmental Relative humidity: $\leq 95\%R.H$;
- Atmospheric pressure: (86~106) kPa;
- Dimension: $\varnothing 35 \times 133.5$ (mm);
- Net Weight: 0.28kg;
- Calibration period: 1 year.

SPMK313A/313B Temperature Calibrator /Dry Block

Main Feature

- Two Channel high-precision DC current, voltage, RTD measurement with 6 digits display;
- Digital temperature control, fast cooling and heating with good stability;
- Portable and easy to carry without any pollution;
- Built-in DC24V power supply.



Technical Data

MODEL	SPMK313A	SPMK313B
Temperature Range	(-30~155)°C (Ambient temperature 25°C)	(33~660) °C
Deviation	±0.15°C	±0.5°C
Display Resolution	0.001 °C	0.001 °C
Insert Depth	170mm	170mm
Diameter of Thermal Block	Ø25mm	Ø25mm
Standard block insertion diameter	Ø6、Ø8、Ø10mm / customized	Ø6、Ø8、Ø10mm / customized
Temperature difference between holes	≤±0.05 °C	≤±0.05 °C
Axial temperature field	Temperature change within 20mm from the bottom of the block insertion ≤0.5 °C	Temperature change within 20mm from the bottom of the block insertion ≤0.5 °C
Temperature fluctuation	≤±0.03 °C/15mins	≤±0.03 °C/15mins
Dimension	(310×240×400) mm	(300×176×380) mm
Net Weight	14.0kg	12.0kg
Power	0.45kW	1.2kW

DC Signal Measurement

Function	Measuring range	Accuracy	Resolution
Voltage	(-75~75)mV	±(0.01%RD+0.005%FS)	0.1μV
	(-30~30)V	±(0.01%RD+0.005%FS)	0.1mV
Current	(-30~30)mA	±(0.01%RD+0.005%FS)	0.1μA
Resistance 4-wire	(0~400)Ω	±(0.01%RD+0.005%FS)	1mΩ
Switch measurement	Short circuit resistance <100Ω	Reaction time: <10ms	0.01 °C

Pressure Calibrators Accessories

Model No.	Items	Pictures	Application	Range
SPMK2000-1	Adaptors sets		Based on M20×1.5M to 38 different thread following: M20×1.5 M/F M12×1.5 M/F M16×1.5 M/F M10×1.0 M/F M14×1.5 M/F M20X1.5 Right Angle 1/2BSP M/F 1/4BSP M/F 3/8BSP M/F 1/8BSP M/F 1/2NPT M/F 1/4NPT M/F 3/8NPT M/F 1/8NPT M/F ZG1/2 M/F ZG3/8 M/F ZG1/4 M/F ZG1/8 M/F Ø6 Ø8 Ø10	(-1~2500) bar
SPMK2000-1N4	Adaptors sets		Based on 1/4NPTM to 38 different threads as mentioned above	(-1~700) bar
SPMK2000-1N2	Adaptors sets		Based on 1/2NPTM to 38 different threads as mentioned above	(-1~2500) bar
SPMK2000-1B4	Adaptors sets		Based on 1/4BSPM to 38 different threads as mentioned above	(-1~700) bar
SPMK2000-1B2	Adaptors sets		Based on 1/2BSPM to 38 different threads as mentioned above	(-1~2500) bar
SPMK2000-2	Pressure Hose		For Pneumatic Gauge Calibration	(-1~8) bar
SPMK2000-3	Pressure Hose		For Pneumatic Gauge Calibration	(-1~40) bar
SPMK2000-4	Pressure Hose		For Hydraulic Gauge Calibration	(0~700) bar
SPMK2000-4A	Pressure Hose		For Hydraulic Gauge Calibration	(0~1000) bar

SPMK2000-5	Pneumatic-Hydraulic Separation Filter		Filter impurities and remove oil during pneumatic pressure comparator calibration.	(-1~250) bar
SPMK2000-6	Hydraulic Filter		Filter impurities in the gauge, protect the pump from pollution	(0~700) bar
SPMK2000-8	Thread Clean Tool		Remove tape from instrument threads	/
SPMK2000-9	Pressure Manifolds		5-in-1 Pressure Manifolds Pneumatic and Hydraulic two types	(-1~250) bar
				(0~700) bar
SPMK2000-10	Pressure Manifolds		4-in-1 Pressure Manifolds Pneumatic and Hydraulic two types	(-1~250) bar
				(0~700) bar
SPMK2000-15	Carrying Case		White, Aluminum Material. For portable pressure comparators	/
SPMK2000-16	Carrying Case		Black, PP Alloy Material, Outer Dimension:560mm x 455mm x 365mm For SPMK213K&990S comparator only	/
SPMK2000-17	Rubber Protector		SPMK223 Calibrator and SPMK700 pressure gauge only.	/

**NPT/BSP/M20X1.5 thread are available for all accessories.

**ZG and PT refers to the same screw thread.

Pressure Range Select Table of kPa/MPa/bar.

Pressure(kPa/MPa)	Pressure(bar)	Accuracy(%F.S)	Pressure Type
(-100~0)kPa	(-1~0)bar	0.05/0.1	Gauge Pressure
(0~100)kPa	(0~1)bar	0.05/0.1	Gauge Pressure
(0~160)kPa	(0~1.6)bar	0.02/0.05	Gauge Pressure
(0~250)kPa	(0~2.5)bar	0.02/0.05	Gauge Pressure
(0~400)kPa	(0~4)bar	0.02/0.05	Gauge Pressure
(0~600)kPa	(0~6)bar	0.02/0.05	Gauge Pressure
(0~1)MPa	(0~10)bar	0.02/0.05	Gauge Pressure
(0~1.6)MPa	(0~16)bar	0.02/0.05	Gauge Pressure
(0~2.5)MPa	(0~25)bar	0.02/0.05	Gauge Pressure
(0~4)MPa	(0~40)bar	0.02/0.05	Gauge Pressure
(0~6)MPa	(0~60)bar	0.02/0.05	Gauge Pressure
(0~10)MPa	(0~100)bar	0.02/0.05	Gauge Pressure
(0~16)MPa	(0~160)bar	0.02/0.05	Gauge Pressure
(0~25)MPa	(0~250)bar	0.02/0.05	Gauge Pressure
(0~40)MPa	(0~400)bar	0.02/0.05	Gauge Pressure
(0~60)MPa	(0~600)bar	0.02/0.05	Gauge Pressure
(0~70)MPa	(0~700)bar	0.02/0.05	Gauge Pressure
(0~100)MPa	(0~1000)bar	0.05/0.1	Gauge Pressure
(0~160)MPa	(0~1600)bar	0.1/0.2	Gauge Pressure
(0~250)MPa	(0~2500)bar	0.1/0.2	Gauge Pressure
(-100~100)kPa	(-1~1)bar	0.02/0.05	Gauge Pressure
(-100~160)kPa	(-1~1.6)bar	0.02/0.05	Gauge Pressure
(-100~250)kPa	(-1~2.5)bar	0.02/0.05	Gauge Pressure
(-100~600)kPa	(-1~6)bar	0.02/0.05	Gauge Pressure
(-0.1~1.0)MPa	(-1~10)bar	0.02/0.05	Gauge Pressure
(-0.1~2.5)MPa	(-1~25)bar	0.02/0.05	Gauge Pressure
(-0.1~4)MPa	(-1~40)bar	0.02/0.05	Gauge Pressure
(-0.1~6)MPa	(-1~60)bar	0.02/0.05	Gauge Pressure
(0~100)kPa.a	(0~1)bar.a	0.05	Absolute Pressure
(0~160)kPa.a	(0~1.6)bar.a	0.05	Absolute Pressure
(0~250)kPa.a	(0~2.5)bar.a	0.05	Absolute Pressure
(0~400)kPa.a	(0~4)bar.a	0.05	Absolute Pressure
(0~600)kPa.a	(0~6)bar.a	0.05	Absolute Pressure
(0~1)MPa.a	(0~10)bar.a	0.05	Absolute Pressure
(0~1.6)MPa.a	(0~16)bar.a	0.05	Absolute Pressure
(0~2.5)MPa.a	(0~25)bar.a	0.05	Absolute Pressure
(0~4)MPa.a	(0~40)bar.a	0.05	Absolute Pressure
(0~6)MPa.a	(0~60)bar.a	0.05	Absolute Pressure
(0~10)MPa.a	(0~100)bar.a	0.05	Absolute Pressure
(0~16)MPa.a	(0~160)bar.a	0.05	Absolute Pressure
(0~25)MPa.a	(0~250)bar.a	0.05	Absolute Pressure
(0~40)MPa.a	(0~400)bar.a	0.05	Absolute Pressure
(0~60)MPa.a	(0~600)bar.a	0.05	Absolute Pressure
(0~5)kPa	/	0.2	Differential Pressure
(-5~5)kPa	/	0.1	Differential Pressure

(0~10)kPa	/	0.1	Differential Pressure
(-10~10)kPa	/	0.05	Differential Pressure
(0~16)kPa	/	0.05	Differential Pressure
(-16~16)kPa	/	0.05	Differential Pressure
(0~25)kPa	/	0.05	Differential Pressure
(0~40)kPa	/	0.05	Differential Pressure
(-40~40)kPa	/	0.05	Differential Pressure
(0~60)kPa	/	0.05	Differential Pressure
(-60~60)kPa	/	0.05	Differential Pressure

Pressure Range Select Table of psi.

Pressure (psi)	Pressure(bar)	Accuracy(%F.S)	Pressure Type
-15	-1	0.05	Gauge Pressure
2	0.16	0.05	Differential Pressure
5	0.35	0.05	Differential Pressure
10	0.7	0.05	Gauge Pressure
15	1	0.05	Gauge Pressure
30	2	0.05	Gauge Pressure
50	3.5	0.05	Gauge Pressure
100	7	0.05	Gauge Pressure
300	20	0.05	Gauge Pressure
500	35	0.05	Gauge Pressure
600	40	0.05	Gauge Pressure
1000	70	0.05	Gauge Pressure
2000	140	0.05	Gauge Pressure
3000	200	0.05	Gauge Pressure
5000	350	0.05	Gauge Pressure
10000	700	0.05	Gauge Pressure
15000	1000	0.05	Gauge Pressure
25000	1600	0.1	Gauge Pressure
36000	2500	0.1	Gauge Pressure

Note: For 0.01%FS and 0.02%FS accuracy, please contact with us.

Temperature Compensation included. Accuracy includes one-year stability.

Headquarter

6F Jinyanlong Plaza, Haidian District, Beijing,
100096, China.

Tel: +86-10-62719945

www.bestcalibrator.com

www.spmkcalibrator.com

Production Base

B26, Economic and Technology Development
Zone, Henan Province, 453000, China

Phone: +86-373-7883360/61

Fax: +86-373-7883368

International Sales Manager

Marilyn

Email: sales@bestcalibrator.com

M: +8615210919985 (same as Whats App / We Chat ID)