

DATASHEET

MILLI-OHMMETER 1 $\mu\Omega$ - 2M Ω

MO-5894A

The MO-5894A adopts 32 bits CPU and high density SMD technology. 24 bits, 4.3-inch and touch LCD screen brings ease for your eyes and convenience to your operation. .



On the basis of rich experience in impedance test and wide market research, now Tinsley launches the new DC impedance measurement instrument with touch and LCD screen MO-5894A milli-ohmmeter..

MO-5894A, with elegant appearance, easy operation and excellent performance, is comparable to the most advanced products in the market.



BRIEF INTRODUCTION

The best measurement accuracy of 0.05% +2d and minimum 1 $\mu\Omega$ resolution shore up its leading role in testing relay contact resistance, interconnecting resistance, conductor resistance, PCB resistance and welding-hole resistance. Temperature compensation and conversion functions make your tests be free from the effect of the environment temperature. The offset voltage compensation has effectively eliminated the electromotive force of the DUT and its contact potential difference. For the contact influence of the thermoelectricity on DUT, its elimination is achieved. Automation on production lines can be greatly improved by the realization of ultra-high test speed and the signal output of 3 compare results through HANDLER interface.

KEY FEATURES

- Best Resistance Measurement accuracy: 0.05% +2d
- Temperature accuracy: 0.5°C
- Minimum resolution: 1 $\mu\Omega$
- Low-resistance test mode can effectively protect DUT
- Multiple measurement combinations of R, LPR, T
- 24 bits, 4.3-inch and 4-wire touch LCD screen
- LCD resolution: 480×272
- Temperature compensation(TC)
- Temperature conversion(Δt)
- Maximum sample rate: 50samps/sec
- Offset voltage compensation (OVC)
- Customer self-correction(0 ADJ)
- Simultaneously output compare results of 3 bins (OVER, PASS and BEEP)
- Statistics function: CpK, Cp
- 30 groups of parameter files can be saved and loaded
- Screen information can be stored on U-disk
- Data save function brings convenience for saving measurement result
- Automatically update operation software through USB HOST
- Operation languages: Chinese and English
- Flexible and convenient file operation system
- Handler interface realizes on-line operation
- Achieve data communication with PC and remote control through interfaces such as RS232, USB HOST, USB Device

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SPECIFICATIONS - SLOW SPEED MEASUREMENT

Model	MO-5894A Milli-Ohmmeter 1 $\mu\Omega$ to 2M Ω		
Display			
Display	24-bit, 480 X 272 and touch TFT LCD screen		
Reading digits	4½ digits		
Resistance measurement			
Measurement range	1 $\mu\Omega$ to 2M Ω		
Resistance range	Current	Resolution	Accuracy Rd%+digits
20m Ω	1A	1 $\mu\Omega$	0.100+3
200m Ω	1A	10 $\mu\Omega$	0.05+2
2 Ω	100mA	100 $\mu\Omega$	
20 Ω	10mA	1m Ω	
200 Ω	1mA	10m Ω	
2k Ω	100 μ A	100m Ω	
20k Ω		1 Ω	
200k Ω	10 μ A	10 Ω	0.2+2
2M Ω	1 μ A	100 Ω	
Measurement function			
Resistance measurement time	FAST:10ms; MED:25ms; SLOW1:115ms; SLOW2:455ms Above data is correct when DISPLAY is OFF; when DISPLAY is ON, 20ms should be added.		
Temperature measurement time	100 ± 10ms	----	
Test terminal	Kelvin 4 terminal		
Average setup	1 to 255		
Zero clearing	√		
Range switch	Auto, Manual		
Trigger mode	Internal, Manual, External, BUS		
Power frequency selection	√ (avoid the interface of the power noise)		
Setting data storage	30 groups		
Low voltage measurement	Open voltage: ≤ 40mV Effective range: 2 Ω , 20 Ω , 200 Ω , 2k Ω		
Thermal electromotive force elimination	√	----	
Statistics function	AVG, MAX, MIN, OSD (Overall standard deviation), SSD (Sample standard deviation), Process capacity index (Cp, cpk)		
Beep state	Comparator, Button		
Key lock	√		
Temperature measurement			
Temperature measurement 1	-10.0°C to 99.9°C Sensor: PT500	----	----
Temperature measurement 2	Analogue input: 0V to 2V Display: -99.9°C to 999.9°C	----	----
Temperature compensation	√ (convert the resistance measurement value to that one measured under preset temperature)	----	----
Temperature switch	√ (temperature rising is gained from resistance test values before and after warming)	----	----

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Compare Judge		
Comparator	Signal output	HI/IN/LO
	Beep	Beep mode: OFF, IN, HI/LO
	Limit setup mode	Absolute value high/low limit, Percentage high/low limit +nominal value
Sorting	3 bins, absolute value/percentage	
External trigger delay time	Auto: dependent on range, low voltage mode ON/OFF, OVC (offset voltage compensation) ON/OFF Manual: 0.000 to 9.999s	
External input trigger	Rising/Falling edge	
Interface		
Interface	USB DEVICE, USB HOST, RS232C, HANDLER	
General specification		
Working condition	Temperature: 0°C to 40°C, Humidity: \leq 80%RH	
Storage condition	Temperature: -10°C to 50°C, Humidity: \leq 90%RH	
Accuracy guarantee condition	Temperature: 18°C to 28°C, Humidity: \leq 80%RH	
Power	Voltage	99V to 121V & 198V to 230V Nominal supplies
	Frequency	47.5Hz to 63Hz
Consumption	30 VA	
Dimension	215mm \times 89mm \times 360mm (net size)	
	235mm \times 104mm \times 360mm (with foam sheath)	
Weight	Approx.3.6kg	

*: the accuracy is guaranteed under certain environmental and test conditions: temperature of 18°C to 28°C, humidity is \leq 80%RH, test speed is SLOW2 (see details in Manual).

SIFAM TINSLEY RESERVES THE RIGHT TO AMEND SPECIFICATIONS.