

Features

- 5.0 inch capacitive touch screen
- 6½ Digit measurement resolution
- Four measurement modes: high resistance meter, voltmeter, ammeter, electrometer independent current and voltage measurement
- Built-in voltage source: ±1000V, resolution: 700 μV
- Current range: 20pA-20mA, current resolution up to 0.1fA (10⁻¹⁶A), the internal resistance voltage drop in the lowest current range <20 μV
- The measurement resistance is as high as 10P Ω (10¹⁶ Ω), and the charge measurement is as low as 2nC. The input impedance is >200T Ω
- Support voltage measurement up to 20V, temperature and humidity measurement
- Time domain view, capture transient signal effects and select specified measurement data to support data recording
- With dedicated shielding test box

Application

- material science
Biomaterials, ceramics, rubber, films, dielectric materials, electrochemical materials, ferroelectric materials, graphene, metals, organic materials, nanomaterials, polymers, semiconductors, etc.
- Electronic Component
Types of transistors such as capacitors, resistors, diodes, sensors, TFT and CNT, photoelectric devices, solar cells, etc.
- Electronic/non-electronic system
Ion beam, electron beam, sensor system, particle measurement, embedded precision instrument, etc.

Specifications

Model	fA meter/ Electrometer/ High Resistance Meter	pA meter/ Insulation Resistance Meter	fA meter	pA meter
	TH2690	TH2690A	TH2691	TH2691A
Measurement resolution	6½ Digit			
Current measurement	1fA - 20mA	0.01pA - 20mA	0.1fA - 20mA	0.01pA - 20mA
Minimum range	20pA	2nA	20pA	2nA
Resistance measurement	10P Ω	10T Ω	-----	-----
Voltage measurement	1 μV - 20V	1 μV - 20V	-----	-----
Input resistance	>200T Ω	>200T Ω	-----	-----
Charge measurement	1fC - 2 μC	-----	-----	-----
Temperature measurement	✓	✓	-----	-----
Humidity measurement	✓	✓	-----	-----
power source	±1000V	±1000V	-----	-----
Minimum resolution	700 μV	700 μV	-----	-----

Current measurement accuracy

Range	Display resolution	Accuracy ± (% + deviation)
20pA	1fA	1%+5fA
200pA	1fA	0.5%+5fA
2nA	1fA	0.2%+50fA
20nA	10fA	0.2%+3pA
200nA	100fA	0.2%+5pA
2μA	1pA	0.1%+50pA
20μA	10pA	0.05%+500pA
200μA	100pA	0.05%+5nA
2mA	1nA	0.05%+50nA
20mA	10nA	0.05%+500nA



Standard	RS232	USB DEVICE	USB HOST
	GPIB	LAN	HANDLER

Rack mount (mm) : 215(W) × 88(H) × 412(D)
Dimension (mm) : 235(W) × 111(H) × 440(D)

Weight : 3.5kg

Resistance measurement accuracy

Range	Display resolution	Voltage Source	Current Range	Accuracy ± (% + deviation)
1M Ω	1 Ω	20V	200 μA	0.135%+1 Ω
10M Ω	10 Ω	20V	20 μA	0.135%+10 Ω
100M Ω	100 Ω	20V	2 μA	0.185%+100 Ω
1G Ω	1k Ω	20V	200nA	0.285%+1k Ω
10G Ω	10k Ω	20V	20nA	0.285%+10k Ω
100G Ω	100k Ω	20V	2nA	0.41%+100k Ω
1T Ω	1M Ω	200V	2nA	0.45%+1M Ω
10T Ω	10M Ω	200V	200pA	0.625%+10M Ω
100T Ω	100M Ω	200V	20pA	0.75%+100M Ω

Voltage measurement accuracy

Range	Display resolution	Accuracy ± (% + deviation)
2V	1 μV	0.05%+40 μV
20V	10 μV	0.05%+400 μV

Charge measurement accuracy

Range	Display resolution	Accuracy ± (% + deviation)
2nC	1fC	0.5%+50fC
20nC	10fC	0.5%+500fC
200nC	100fC	0.5%+5pC
2 μC	1pC	0.5%+50pC

Voltage source accuracy

Range	Display resolution	Accuracy ± (% + deviation)	Output Current
20V	700 μV	0.05%+2mV	±20mA
1000V	35mV	0.05%+100mV	±1mA

Accessories

- Three-core power cord
- Triaxial cable
- Resistivity box (optional)
- Test shield box (optional)