

Ultra-low Resistance Digital Resistance Checker (High measurement resolution:7-digit display)

Optimum for the auto measurement of Ultra-low Resistor



- Optimum for the Ultra-low resistance measurement such as shunt resistor
- Measurement not to influenced by thermoelectromotive force.
- Impressed the measuring current at pulse interval, in order to reduce abrasion of measuring terminal.
- Contact-check is equipped as standard function.
- Measuring range : 0.000000m Ω ~ 1.500000k Ω
- Reference resistance value can set between $0.01 \text{m}\,\Omega \sim 1.4 \text{k}\,\Omega$ GP-IB/RS-232C two interfaces simultaneous communication available.
- Measurement value can display up to 7digits, more detailed display than conventional ones.
- \bullet With independent 1m Ω /3A range installation, total 7 range settings.
- Comparator judgment indicating 7 results.

Specifications

Measuring range and Accuracy (at 23°C±5°C)

Range	Measuring range	Resolution	Measuring current	R measurement Accuracy
1m Ω	0.0000 m Ω \sim 1.5000 m Ω	0.1 μ Ω		
10m Ω	0.000 m Ω \sim 15.000 m Ω	1μΩ	1A	± (0.010/l = 1.1 // O.)
100m Ω	0.00 m Ω \sim 150.00 m Ω	10 μ Ω		\pm (0.01%rdg+1 μ Ω) $\pm \alpha$ digits α : Average(SLOW)=3
1Ω	0.0000 Ω ~ 1.5000 Ω	100 μ Ω	100mA	
10Ω	0.000 Ω ~ 15.000 Ω	1 m Ω	TOUMA	
100Ω	0.00 Ω ~ 150.00 Ω	10m Ω	10mA	Average(FAST)=4
1kΩ	0.0000 k $\Omega \sim 1.5000$ k Ω	100m Ω	1mA	SLOW=4
%	0.05 m $\Omega \sim 1.4000$ k $\Omega / \pm 50.00$ %(display range)	0.0001%[0.01nΩ]	Refer to the above	FAST=6

Open-circuit voltage of measuring terminal	about 9V		
Measuring method	4-terminal measuring method with contack check.		
Sampling time	Free Running : 2~10 times/sec.		
Gampling time	Remote start: about 22.0msec./34.8msec.(60Hz)		
Comparator setting range	upper,lower (0~15000),		
Comparator Cotting range	$Range: 50.00\% [low: 0 \sim -50.00\%, high: 0 \sim +50.00\%]$		
Indication of comparator's comparison result	LO/LLG/LG/GO/HG/HHG/HI LED display and buzzer		
	Remote start input :"L"[0V]→"H"[DC12V] start		
	Remote hold input: Open and "H" [DC12V]: Free run/"L" [0V]: Hold		
Control signal	Comparison output [LO/GO/HI]: Open-collector output max.40V,100mA		
	Contact error output [CE]: Open-collector output max.40V,100mA		
	End of comparison output [EOC]: Open-collector output max.40V,100mA		
Operation condition	[Temp.] $+5^{\circ}$ C \sim $+40^{\circ}$ C [Humidity] less than 85%		
Power supply	AC110V~230V selectable , 50/60Hz , about 60VA		
Outer dimension	about $333(W) \times 99(H) \times 300(D)$ mm(excluding protruding parts such as rubber legs,etc.)		
Weight	about 3.8kg		

The Outline

AX-1156B can measure the ultra low resistance with high speed and high accuracy from $0.000000m\Omega$ to $1.500000k\Omega$ (% Measurement : $0.01m\Omega \sim 1.400000k\Omega / \pm 50.0000$ % (display range).

The unit has DOUBLE Measuring Mode can cancel the thermoelectromotive force which is the cause of errors especially when measuring ultra low resistance, and special auto zero circuit is also available to measure with high accuracy and high stability.

The unit indicates the measured value in digital display and outputs signal outside to judge LO/LLG/LG/GO/HG/HHG/HI decision.

Measuring speed is switchable, AVERAGE/DOUBLE/SLOW/FAST etc. can be selected.

Contact check circuit and measuring current/voltage abnormality check circuit are standard equipment, improving the reliability of measurement furthemore.

The unit can be equipped with any 2 interfaces of GP-IB/RS-232C/Centronics for the option.



- GP-IB Interface RS-232C Interface
- Printer output (8 bit parallel Centronics)
- * Any 2 interfaces can built-in option above

Printer cable