

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.
- Available to percentage measurement for the setup basic value:  $0.5\text{m}\Omega \sim 1\text{k}\Omega / \pm 50.00\%$  [Resolution:  $50\text{n}\Omega$ ]
- GP-IB/RS-232C/Centronics outputs are available (Option)
- Comparison result by built-in comparator is open-collector output and displayed by LED and buzzer.
- Standard equipments of check circuit for measuring current and abnormal voltage
- Available to shift output

## Specifications

Measuring range and Accuracy (at $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ )

Range	Measuring range	Resolution	Measuring current	Accuracy [Slow]
$1\text{m}\Omega$	$0.0000\text{m}\Omega \sim 1.5000\text{m}\Omega$	$0.1\mu\Omega$	3A	within $\pm(0.01\% \text{rdg} + 1\mu\Omega)$ $\pm 3\text{digit}$ [Average] $\pm 4\text{digit}$ [Slow] $\pm 5\text{digit}$ [Fast]
$10\text{m}\Omega$	$0.000\text{m}\Omega \sim 15.000\text{m}\Omega$	$1\mu\Omega$	1A	
$100\text{m}\Omega$	$0.00\text{m}\Omega \sim 150.00\text{m}\Omega$	$10\mu\Omega$	100mA	
$1\Omega$	$0.0000\Omega \sim 1.5000\Omega$	$100\mu\Omega$		
$10\Omega$	$0.000\Omega \sim 15.000\Omega$	$1\text{m}\Omega$	10mA	
$100\Omega$	$0.00\Omega \sim 150.00\Omega$	$10\text{m}\Omega$	1mA	
$1\text{k}\Omega$	$0.0000\text{k}\Omega \sim 1.5000\text{k}\Omega$	$100\text{m}\Omega$		
%	$0.5\text{m}\Omega \sim 1\text{k}\Omega / \pm 50.0\%$	$0.01\%$ [ $50\text{n}\Omega$ ]	Refer to the above	

Open-circuit voltage of measuring terminal	about 4V
Measuring method	4-terminal measuring method (contact check available)
Sampling time	[Free running mode] 2~10 times/sec. [Remote start mode] about 16.5msec./29.8msec.
Setting range for comparator	Upper limit, lower limit for both [0~15000], % range: 50.00% [low: 0~ -50.00%, high: 0~ +50.00%]
Indication of comparator's judgment result	LED indication LO/GO/HI and buzzer
Control signal	Remote start input: "L" [0V] → "H" [DC12V] start Remote hold input: Open and "H" [DC12V]: Free run/"L" [0V]: Hold comparison output [LO/GO/HI]: open collector: max.40V, 100mA contact error output [CE]: open collector: max.40V, 100mA end of comparison output [EOC]: open collector: max.40V, 100mA
Operation condition	[Temp.] $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ [Humidity] less than 85%
Power supply	AC100V~240V selectable, 50/60Hz, about 60VA
Outer dimension	about 333 (W) × 99 (H) × 300 (D) mm (excluding protruding parts such as rubber legs, etc.)
Weight	about 3.8kg

## The Outline

AX-1152D can measure the ultra low resistance from  $0.0000\text{m}\Omega$  to  $1.5000\text{k}\Omega$  with high speed, high accuracy.

The unit has DOUBLE Measuring Mode can cancel to measure the thermoelectromotive force that caused an error especially when measures ultra low resistance, and special auto zero circuit, available to measure high accuracy, and high stability.

The unit is indicated the measured value as a digital and outputs signal outside to judge HI, GO, LO decision. It can be switched a measuring speed, selectable from AVERAGE/DOUBLE/SLOW/FAST.

And Contact check circuit and check circuit for measuring current and abnormal voltage are standard equipment, improved the reliability for the measurement furthermore.

The unit can be equipped either one GP-IB/RS-232C/Centronics as an option.

### Option

- GP-IB Interface
- RS-232C Interface
- Printer output (8 bit parallel Centronics)
- \*Either one interface can built-in the option above.

- Printer cable