

## Model AX-162E Ultra-high Speed and High Accuracy, Key Switch Type Digital Resistance Checker

Best Suitable for D, F, G, J, K classes, chip, melf, lead type resistance sorting machine, and taping machine



- This device is correspond to the minimum chip. (Low measurement force)
- Ultra-high speed:0.7 msec. [TYP]
- High accuracy and high stability by the measuring method rejected thermoelectromotive force.
  - Available to make the ultra-high speed and high stable measurement by the setting function of average time on measuring value for each range
  - Range of measurement for absolute value: 0.00m $\Omega$  ~200.00M $\Omega$  for %:5m $\Omega$  ~109M $\Omega$
  - Available to select the function for contact check before or after the measurement, or function of non-contact check.
- RS-232C and Centronics interface are built-in as standard equipment. [GP-IB is option]
- Printer output as standard equipment. (Centronics)
  - Transfer function of Setting data is built-in as standard equipment.
  - (Available to transfer the same setting data to another set of AX-162E)
  - The checking circuit of the abnormal measuring current and voltage is built-in.

## **Specifications**

Measuring range and Basic accuracy (at $23^{\circ}C\pm 5^{\circ}C$ ), 180days after calibration [In the case of 1 year after calinration is 1.5 times]

Measuring range	Setting range of standard value	Measuring current	Accuracy		
			SLOW	※FAST	
100m Ω	5mΩ ~ 100mΩ	100mA	within $\pm 0.02\% \pm 2\alpha \pm 2d$	within $\pm 0.03\% \pm 3 \alpha \pm 2 d \pm [2/(1+n)] d$	
1Ω	100.1mΩ ~ 1Ω	100mA	within $\pm 0.02\% \pm \alpha \pm 1d$	within $\pm 0.02\% \pm \alpha \pm 2d \pm \left[2/(1+n)\right] d$	
10 Ω	1.001 Ω ~ 10 Ω	50mA	Within ±0.02%± α ± 1α	widiin ±0.02%± α ±20±[2/(1+n)] α	
100 Ω	10.01 Ω ~ 100 Ω	10mA			
1kΩ	100.1 Ω ~ 1kΩ	5mA		within $\pm 0.02\% \pm 2$ d $\pm [1/(1+n)]$ d	
10kΩ	1.001kΩ ~ 10kΩ	0.5mA	within $\pm 0.02\% \pm 1d$		
100kΩ	10.01kΩ∼ 100kΩ	50 μ A			
1MΩ	100.1kΩ ~ 1MΩ	5 μ Α		within $\pm 0.05\% \pm 2d \pm [1/(1+n)] d$	
10M Ω	1.001MΩ ~ 10MΩ	0.5 μ A	within $\pm 0.03\% \pm 1d$	within $\pm 0.2\% \pm 4d \pm [1/(1+n)]$ d	
100MΩ	10.01MΩ ~ 109MΩ	0.05 μ A	within $\pm 0.1\% \pm 2d$		

%d: digits, n=integral time(msec), when percentage measurement: lpha=(100/standard setup value m $\Omega$ ) imes0.01%, when absolute value measurement: lpha=0

On FAST, the accuracy is with fully shielded

	Remote start		Free running	
Measuring time	SLOW	FAST	SLOW	FAST
	about 18msec. ∼about 400msec.	about 0.7msec. ∼about 400msec.	about 30 times/sec. ∼about 25 times/sec.	about 60 times/sec. ∼about 50 times/sec.

EOC [End of comparison] pulse width	1∼250msec. or continuative		
Measuring method	2 or 4-terminal measurement		
Setting range for judgment value	% Measurement: ±99.99% Absolute measurements:00000∼20000		
Operation condition	[Temp.] 5°C~+40°C [Humidity] less than 85%		
Power supply	AC85V∼265V, 50/60Hz, about 50VA		
Outer dimension	about 333 (W) ×99 (H) ×300 (D) mm (excluding protruding parts such as rubber legs, etc.)		
Weight	about 3.5kg		

## The Outline

AX-162E can measure a wide range of resistance from  $0.00m\Omega$  to  $200M\Omega$ , ultra fast speed, high accuracy.

The unit is built in microprocessor to judge the measured value for HI/GO/LO decision, outputs a signal outside.

The measured value is indicated as a deviation value of  $\pm 99.99\%$ , or resistance value(max.20000 count).

It can be switched a measuring speed, both FAST and SLOW can set an integral time each range.

Contact-check function as a standard equipment: When measure 4 terminals, either one occurs contact failure, judges H decision regardless of its measured value, and outputs HI signal with C.E (ContactError) signal outside at the same time. The Contact-check is selectable from premeasurement/postmeasurement/OFF.

Besides, a check function to observe the measuring electrical current/electrical voltage always has set, when bad contact situation occurs during measurement outputs to judge NG decision. Printed-out(based on centronics),RS-232C interface, and setup data transfer functions are equipped as standard. For printed-out can be memorized 10,000 of the measuring data, the unit can be measured even though during printing out. Besides it also can be printed out a result of a statistical analysis data for arbitrary

RS-232C (GP-IB is an option) can be set measurement condition such as output the measuring data, standard resistance or limit value, and others.

The function of transfers the setup data can easily and quickly transfers another AX-162E for the same value of a range, standard, limit, is very useful when use two units together (joint cable is sold separately) Besides, for setup of a measuring range to handle a key of front panel is only put in a standard resistance value to select automatically an appropriate range built in

microprocessor so as to remove the burden of the setup a range Moreover, a content of the setup keeps by battery backup even the power source OFF.

Option GP-IB Interface Data transfer cable