

## Model **AE-163D** Ultra-high Accuracy and High Speed, Key Switch Type Digital Resistance Checker

Optimum for the on a sorting machine, taping machine and painting conveyor for chip, MELF and lead type resistor of B,C,D,F,G,J,K and M class.

- Ultra-high accuracy and ultra-high stability by the measuring method rejected thermoelectromotive force.
- High stability by the improvement of noise immunity for the isolated circuit between analog part and digital part.
- Available to make the high speed and ultra-high stable measurement by the setting function of average time on measuring value for each range.
- Range of measurement for absolute value :  $0.00\text{m}\Omega \sim 125.00\text{M}\Omega$   
for % :  $5\text{m}\Omega \sim 100\text{M}\Omega$  【 $\pm 10.000\% / -99.99\% \sim +25.00\%$ 】
- 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】
- Transfer function of setting data is built-in as standard equipment.  
(Available to transfer the same setting data to another set of AE-163D)
- The checking circuit of the abnormal measuring current and voltage is built-in.



**AEMIC CORPORATION,**

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## SPECIFICATIONS

### Measuring range and Accuracy (at 23°C±5°C)、180days after calibration 【1year after calibration : 2times】

Measuring Range	Test Current	Accuracy*		
		SLOW[Hi-Reso.]	SLOW[Lo-Reso.]	FAST[Lo-Reso.]
5mΩ ~ 100mΩ	180mA	within±0.01%±α±10d	within±0.02%±α±2d	±0.03%±2α±3d±[2/(1+n)]d 以内
100.1mΩ ~ 1Ω	180mA	within±0.005%±α±3d	within±0.02%±α±1d	±0.02%±α±2d±[2/(1+n)]d 以内
1.001Ω ~ 10Ω	90mA			
10.01Ω ~ 100Ω	18mA	within±0.005%±1d	within±0.02%±1d	±0.02%±2d±[1/(1+n)]d 以内
100.1Ω ~ 1kΩ	9mA			
1.001kΩ ~ 10kΩ	0.9mA			
10.01kΩ ~ 100kΩ	90μA			
100.1kΩ ~ 1MΩ	9μA	within±0.007%±1d	±0.03%±1d 以内	±0.05%±2d±[1/(1+n)]d 以内
1.001MΩ ~ 10MΩ	0.9μA	within±0.02%±10d		±0.2%±4d±[1/(1+n)]d 以内
10.01MΩ ~ 100MΩ	0.09μA	within±0.1%±20d	±0.1%±2d 以内	---

d : digit    n : Averaging time(msec.), α=[100/setting value(mΩ)]×0.01%, In case of the measurement of absolute value, add ±1digit,

\* The above accuracy is under the condition shielded completely.

Test terminal open voltage	below 15V
EOC[Endofcomparison]pulsewidth	1~250msec. or continuative
Measuring method	2 or 4 terminal measurement
Comparator set range	4 1/2 digit(20000) both for high and low limit %range:±9.99% / -99.99~+25.00%
Operation condition	Temp.:0°C~+50°C、 Humidity:below 80%
Power supply	AC85V~265V、 50~60Hz、 about 50VA
Outer dimension	333(W)×99(H)×300(D)mm [excluding protruding parts such as rubber legs, etc.]
Weight	about 3kg

### Measuring time

Remote start		Free running	
SLOW	FAST	SLOW	FAST
About 18msec.~400msec.	About 2msec.~400msec.	About 30~2times/sec.	About 60~2times/sec.

### Option

● GP-IB
● Data cable
● Short termination(Zero ohm standard resistor)

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