

**DC Milli OHM Meter**  
*for Low Resistance Measurement (0.01 mΩ ~ 10kΩ)*

# Model 7310A

*Standard equipment of Centronics output*

- ☆ Changeover display of % and absolute value (4 figures)
- ☆ Contact Check function in 16 kinds of contact error while measurement
- ☆ Power save measurement system

- ☆ Alternative measuring system (Thermo-electromotive Cancel measurement)
- ☆ Free setting of Contact Check action



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Realize New Era  
of  
LCR Measurement

**RST ENGINEERING CO., LTD**  
KYOTO JAPAN



# DC Milli OHM Meter Model 7310A

## for Low Resistance Measurement

■ **Realized low measuring current 200mA (0.01mΩ ~ 99.9mΩ)**  
By high accurate amplifier installed, Model 7310A can measure very low current of 200mA and make ensure protection of probe by mitigation burden of measuring probe's top.

■ **Measuring range 1mΩ ~ 10kΩ**  
(switching display of % & Absolute value)  
Hi-speed & Hi-accurate measurement of resistance deviation between 1mΩ ~ 10kΩ and digital display.

■ **Free setting of Contact Check operation of OFF, Before, After.**

Can select the following 4 ways.

- 1) No Contact Check
- 2) Contact check before/ after of measurement
- 3) Contact check before measurement
- 4) Contact check after measurement

★ (Contact error at contact resistance over 30Ω)

■ **Power save measurement system**

Have Power Save Function which open circuit at only the time of measurement.

Thus can be minimized measuring error by upward of temperature etc.

■ **Full time Contact Check function**

(Measuring Waveform check)

Always check all terminal contacting conditions while measuring and when detecting abnormal Output Contact Error.

■ **Multi-Scaling system**

Can set Display Limit (Full scale display) at  $\pm 9.99\%$   $\pm 19.99\%$   $\pm 99.9\%$  freely

■ **Display of 16 kinds of Contact Error**

When contact error, the error point can confirm by display of Cord display.

Error cord	contact check error point			
	After contact check		Below contact check	
	L terminal	H terminal	L terminal	H terminal
CE 1				*
2			*	
3			*	*
4		*		
5		*		*
6		*	*	
7		*	*	*
8	*			
9	*			*
A	*		*	
B	*		*	*
C	*	*		
d	*	*		*
E	*	*	*	
F	*	*	*	*

Measuring way

FAST mode : Measurement in one time

SLOW mode : Measurement in two time (average), changing polarity of measuring voltage, measure Thermoelectromotive cancel.

\* At below 9.9mΩ of setting Force Value, mode is fixed as SLOW.

## Specifications

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

Standard setting	Current	Display Limit	Accuracy	
			$\pm 19.99\%$ display	$\pm 9.99\%$ display
01.0mΩ ~ 99.9mΩ	200mA	$\pm 19.99\%$ $\pm 9.99\%$ $\pm 99.9\%$	within $\pm 0.05\% \pm 2$ digit	within $\pm 0.05\% \pm 1$ digit
100mΩ ~ 999mΩ	100mA		within $\pm 0.03\% \pm 2$ digit	within $\pm 0.03\% \pm 1$ digit
1.00Ω ~ 9.99Ω	10mA		within $\pm 0.03\% \pm 1$ digit	
10.0Ω ~ 99.9Ω	5mA			
100Ω ~ 999Ω	0.5mA			
1.00kΩ ~ 10.0kΩ	0.05mA			
(mΩ check 3)	10mA	0~999mΩ	within $\pm 0.2\% \pm 1$ digit	
(mΩ check 2)	100mA	0.0~99.9mΩ	within $\pm 0.2\% \pm 2$ digit	
(mΩ check 1)	200mA	0.00~9.99mΩ	within $\pm 0.2\% \pm 3$ digit	

※ Accuracy below STANDARD set value 9.9mΩ:  $\pm 0.05 \times (10/\text{m}\Omega \text{ set value})\% \pm$  with in 2 digits.

※ At  $\pm 99.9\%$  display mode, at all ranges are within  $\pm 0.2\% \pm 1$  digit.

Measuring Way : Four(4) Terminal Measuring.

SLOW : 2 times measurement, Changing measuring voltage polarity.

FAST : Measurement in 1 time.

Measuring time

Frequency	Remote start		Free Running	
	FAST	SLOW	FAST	SLOW
60Hz	20msec	37msec	20times per sec	15times per sec
50Hz	23msec	44msec	19times per sec	13times per sec

(Remarks) Measuring time of Free Running varies according to times of EQC.

FAST : single measurement. (mΩ check 1, 2, and 3 are the fixation of FAST)

SLOW : double measurement. (only double measurement at below set value 99.9mΩ)

Display of measurement : % or absolute display HI/ GO/LO LED display & Buzzer

Limit of judged value setting :  $\pm 0.00\% \sim \pm 9.99\%$   $\pm 0.00\% \sim \pm 19.99\%$   $\pm 00.0\% \sim \pm 99.9\%$   
(In case of mΩ check :  $+ 0.00\text{m}\Omega \sim 999\text{m}\Omega$ )

Input/Output signal : Input signal = START, HOLD  
Output signal = HI/GO/LO (judged result) CE(Contact Error)  
EOC [Pulse width of signal can be changed at 1msec between 1msec to 50msec]

Ambient conditions : Temperature =  $0^\circ\text{C} \sim +50^\circ\text{C}$  Humidity = below 85%

Outer dimensions : 330 (W)  $\times$  99 (H)  $\times$  300 (D) mm

Power Supply and Weight : AC100V/117V/220V/240V 50/60Hz 30VA approx. 6.5kg approx

※ Subject to change specifications without notice for improvement.



**RST ENGINEERING CO., LTD.**

URL : <http://www.rst-eng.co.jp> E-mail : [info@rst-eng.co.jp](mailto:info@rst-eng.co.jp)

HED OFFICE KYOTO JAPAN

TEL(075)501-5501 FAX(075)501-7091