

RS232 computer interface

MULTIMETER

Model : DM-9680

ISO-9001, CE, IEC1010



SW-U801
optional



UPCB-02
optional



CA-06
optional



LUTRON ELECTRONIC

The Art of Measurement

with RS-232 interface

MULTIMETER

Model : DM-9680

FEATURES

- * Multi function measurement : ACV, DCV, ACA, DCA, OHM, Continuity Beeper, Transistor hFE, Diode,
- * Meet IEC safety requirement.
- * High accuracy in measuring.
- * High internal impedance assures minimum measuring error.
- * Rotary function switch, easy operation.
- * Large size LCD display, easy reading.
- * LCD display, clear readout even in high ambient light environment.
- * Compact, light weight & excellent operativeness.
- * Overload protection for any range.
- * Drop proof.
- * RS232 PC interface, photo couple isolated circuit.
- * When apply the optional software, then the meter can be used as data logging, data recorder & other intelligent applications.

GENERAL SPECIFICATIONS

Display	18 mm (0.7") LCD, 3 1/2 digits.
Measurement & Functions	DCV, ACV, DCA, ACA, ohms, hFE, Continuity Beeper.
Polarity	Automatic Switching, '-' indicates negative polarity.
Zero Adj.	Automatic.
Over-input	Display shows '1' or '-1'.
Sampling Time	Approx. 0.4 second.
RS-232 Output	Isolated (photo couple) RS-232 serial data output, 9600 baud rate.
Operating Temperature	0 to 50 °C (32 to 122 °F).
Operating Humidity	Max. 80% RH.
Power Supply	006P DC 9V battery(heavy duty type).
Power Consumption	Approx. DC 7 mA.
Dimension	204 x 90 x 36 mm (7.3 x 3.4 x 1.5 inch).
Weight	322 g/0.71 LB.
Standard Accessories Included	Red and Black Test Leads 1 pair. 0.5 Amp Spare Fuse 1 PC. Instruction Manual 1 PC.
Optional Accessories	RS-232 cable, UPCB-02 Application Software, SW-U801 Hard carrying case, CA-06 USB cable : USB-01 Light adapter LX-02 Anemometer adapter, AM-402 Humidity adapter, HA-702 tachometer adapter TA-601 1000 A DC/AC current adapter, CA-501 2000 A DC/AC current adapter, CA-203 Mini ACA current adapter, CA-201 EMF adapter, EMF-824 Sound adapter, SL-406 50 A current shunt, ST-50 High voltage probe, HV-40 Carrying case CA-03, CA-05A Alligator test lead, TL-02S Alligator test lead, TL-02S Heavy duty alligators, AL-04 Holster, HS-01

ELECTRICAL SPECIFICATIONS (23± 15 °C)

DC VOLTAGE				
RANGE	ACCURACY	RESOLUTION	INPUT IMPEDANCE	OVERLOAD CKT. PROTECTION
200mV	± (0.5%+1d)	100uV	10 M ohm	500V DC, 350V AC, 15 secs
2V	± (0.8%+1d)	1mV		DC 1000V
20V		10mV		AC 800 V
200V		100mV		15 secs
1000V		1V		

AC VOLTAGE				
FREQ. RESPONSE: 40Hz-500Hz, SINE WAVE				
SPEC. TESTED ON 60Hz/50Hz				
RANGE	ACCURACY	RESOLUTION	INPUT IMPEDANCE	OVERLOAD CKT. PROTECTION
200mV	± (1%+2 d)	100uV	10 M ohm	500V DC, 350V AC, 15 secs
2V		1mV		DC 1000V
20V		10mV		AC 800 V
200V		100mV		15 secs
750V		1V		

DC CURRENT				
RANGE	ACCURACY	RESOLUTION	VOLTAGE DROP in F.S.	OVERLOAD CKT. PROTECTION
200uA	± (1%+1d)	0.1 uA	DC 200 mV	0.5 A Fuse
2mA		1 uA		
20mA		10 uA		
200mA		100 uA		
A *		10 mA		UN FUSED

* A range : 0 to 10 A - continuous operation
> 10 A to 20 A - 1 min. operation max.

AC CURRENT				
FREQ. RESPONSE: 40Hz-500Hz, SINE WAVE				
SPEC. TESTED ON 60Hz/50Hz				
RANGE	ACCURACY	RESOLUTION	VOLTAGE DROP in F.S.	OVERLOAD CKT. PROTECTION
200uA	± (1.2%+2d)	0.1 uA	AC 200 mV	0.5 A Fuse
2mA		1 uA		
20mA		10 uA		
200mA		100 uA		
A *		10 mA		UN FUSED

* A range : 0 to 10 A - continuous operation
> 10 A to 20 A - 1 min. operation max.

RESISTANCE				
RANGE	ACCURACY	RESOLUTION	OPEN CKT. VOLTAGE	OVERLOAD CKT. PROTECTION
200 ohm	± (1%+3d)	0.1 ohm	Approx. 3 V	AC/DC 500 V
2K		1 ohm		
20K		10 ohm		
200K	100 ohm			
2 M	1K ohm			
20 M	± (2%+2d)	10K ohm	0.3 V Max.	

CONTINUITY BEEPER
A continuity test beeper is standard, when checking short or open circuit, it is not necessary to look at the meter. The beeper sounds if continuity is present.

TRANSISTOR hFE MEASUREMENT
0 - 1000 hFE values of either p.n.p. or n.p.n. transistor. (Test condition: base dc current approx. 10 uA, VCE: approx. 2.8 V).

RS-232 OUTPUT
Isolated (photo couple) RS-232 serial data output, 9600 baud rate.