

TYPE DMM-301 is an accurate compact hand-held type Digital Multimeter with 3½ digits 1999 Counts LCD display. The multimeter has been carefully designed to provide long reliable performance for your laboratory, workbench or portable application.

FEATURES

- 01 DISPLAY : 3 1/2 Digit 1999 Counts LCD
- 02 POLARITY : Automatic negative polarity indication
- 03 MEASURING METHOD : Dual Slope integration A-D converter System
- 04 ZERO ADJUSTMENT : Automatic
- 05 OVER RANGE INDICATION : Only the MSD "OL" display
- 06 LOW BATTERY : The "BAT" is displayed
- 07 OPERATING ENVIRONMENT : Temperature 0°C to 40 °C, humidity < 85% RH
- 08 STORAGE ENVIRONMENT : Temp. -20°C to 60°C, humidity < 95% RH
- 09 POWER : Single, standard 9V battery. NEDA 16041EC6F22
- 10 Weight : 1 Kg. (Approx)

ELECTRICAL SPECIFICATIONS

Accuracy is ± (% of reading ± number of digit) at 23°C ± 5°C, < 75%RH.

01 DC VOLTAGE

RANGE	ACCURACY	RESOLUTION
200mV	±(0.5% + 4d)	0.1mV
2V	"	1mV
20V	"	10mV
200V	"	100mV
1000V	±(0.8% + 5d)	1V

Impedance : 10MW, Overload Protection : 1000V DC/700V AC

02 AC VOLTAGE

RANGE	ACCURACY	RESOLUTION
200mV	±(1.2% + 4d)	100uV
2V	±(1.0% + 4d)	1mV
20V	"	10mV
200V	"	100mV
700V	±(1.5% + 4d)	1V

Impedance : 10MW, Overload Protection : 1000V DC/700V AC

Frequency Response : 40-400Hz

03 DC CURRENT

RANGE	ACCURACY	RESOLUTION
2mA	±(0.8% + 4d)	1uA
20mA	"	10uA
200mA	±(1.2% + 4d)	100uA
20A	±(2.0% + 5d)	10mA

Overload Protection : Fast 200mA/250V fuse

20A ranges unfused, Max. Input : 20A (up to 15 seconds)

04 AC CURRENT

RANGE	ACCURACY	RESOLUTION
2mA	±(1.2% + 4d)	1uA
20mA	"	10uA
200mA	±(2.0% + 4d)	100uA
20A	±(3.0% + 5d)	10mA

Overload Protection : Fast 200mA/250V fuse

20A ranges unfused, Max. Input : 20A (up to 15 seconds)

Frequency Response : 40-400Hz

05 RESISTANCE

RANGE	ACCURACY	RESOLUTION
200 Ohms	±(1.0% + 4d)	0.1 Ohms
2K Ohms	±(0.8% + 4d)	1 Ohms
20K Ohms	"	10 Ohms
200K Ohms	"	100 Ohms
2M Ohms	"	1K Ohms
20M Ohms	±(2.0% + 4d)	10K Ohms
2000M ohms	±(5.0% + 4d)	1M ohms

Impedance : 10MW, Overload Protection : 1000V DC/700V AC

Frequency Response : 40-400Hz

06 DIODE TEST

RANGE

Description

Test Condition

Display read approx. forward voltage of diode
Buzzer sound if resistance between terminals V/W and COM is less than about 30W

Forward DC Current approx 1mA. Reverse DC voltage approx 3V

Overload Protection : 250V DC/AC rms

Note : Do not input voltage.

07 TRANSISTOR hFE Test

RANGE

DESCRIPTION

TEST CONDITION

Display read approx. hFE
forward voltage (0-1000) 10uA, Vce approx 2.8V
Of transistor Under test (All TYPE)

08 INDUCTANCE (L)

RANGE

ACCURACY

RESOLUTION

2mH	±(2.5% + 5d)	1uH
20mH	"	10uH
200mH	"	100uH
2H	"	1mH
20H	±(5.0% + 4d)	10mH

Impedance : 10MW, Overload Protection : 1000V DC/700V AC

Frequency Response : 40-400Hz

*** CAPACITANCE**

RANGE

ACCURACY

RESOLUTION

20nF	±(2.5% + 20)	10pF
200nF	"	100pF
2uF	"	1nF
20uF	"	10nF
200uF	±(5.0% + 5)	100nF

Test Freq. : 100Hz, Overload Protection : DC 36 V, AC peak value

09 FREQUENCY

RANGE

ACCURACY

RESOLUTION

2KHz	±(0.5% + 4d)	1Hz
20KHz	"	10Hz
200KHz	"	100Hz
2000KHz	"	1KHz
10MHz	"	10KHz

Overload Protection : 250V DC/AC rms, max. 10 seconds

10 TEMPERATURE

RANGE

ACCURACY

RESOLUTION

-40°C - 400°C	±(0.8% + 4d)	1°C
400°C - 1000°C	±(15% + 15d)	1°C

Using K type thermocouple probe

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS