



# DIGITAL MULTIMETER



(Auto / Manual Ranging)

1000 V AC / DC

MODEL : DM325

## Special Features

### \* RUGGED \* RELIABLE \* ACCURATE

- Secondary injection moulded case
- VAC, VDC, mVDC,
- ohms, capacitance, Frequency (upto 100kHz)
- AC/DC amps, AC/DC milliamps, AC/DC micro-amps
- Temperature (-50°C-100°C)
- Relative mode.
- DATA HOLD

## General Specifications :

Display	: 3¾ digits LCD display. Automatic indication of functions and symbols.
Range selection	: automatic and manual.
Over Range indication	: LCD will display "OL"
Low battery indication	: The "⊕" is displayed when the battery is under the proper operation range.
Polarity indication	: "-" displayed automatically.
Operating temperature	: 0 ~ 40°C, 32°F ~ 122°F (<80% RH, <10°C non-condensing)
Storage temperature	: - 10 ~ 60°C, 14°F ~ 140°F (<70% RH, battery removed)
Fuse Protection	: $\mu$ A and mA : F500/mA / 250V $\phi$ 5x20, A:F 10A / 250V $\phi$ 6.3x32.
Sample Range	: 3 times / sec for digital data.
Power source	: 4.5V ---
Battery type	: AAA 1.5V
Dimensions	: 185(L) x 87 (W) x 53 (H) mm.
Weight	: 360g. Approx. (Battery included).

## Standard Accessories :

- Testing Leads - 1 pair
- 1.5V 'AAA' Battery - 3 Nos
- Operator's Instruction Manual - 1 No.
- Temp. Probe (K type bead Thermocouple) - 1 No.
- Multifunction Socket - 1 No.



INSTRUMENTS FOR ACCURACY & RELIABILITY



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## Measurement Specifications :

Voltage			
Function	Range	Resolution	Accuracy
DC Millivolt mV $\overline{=}$	400mV	0.1mV	$\pm$ (1.0% of rdg + 10 digits)
DC Voltage V $\overline{=}$	4V	1mV	$\pm$ (0.5% of rdg + 3 digits)
	40V	10mV	
	400V	100mV	
	1000V	1V	
AC Voltage <sup>1,2</sup> V $\sim$	400mV $\sqrt{\phantom{x}}$	0.1mV	$\pm$ (3.0% of rdg + 3 digits)
	4V	1mV	$\pm$ (1.0% of rdg + 3 digits)
	40V	10mV	
	400V	100mV	
	1000V	1V	

Overload Protection : 1000V dc or 1000V ac rms

1. Frequency Range : 40Hz~500Hz
2. Response : Average, calibrated in rms of sine wave
3. Manual Range only

Frequency			
Function	Range	Resolution	Accuracy
Frequency Hz (10Hz-100kHz)	50.00 Hz	0.01Hz	$\pm$ (0.1% of rdg + 3 digits)
	500.0 Hz	0.1Hz	
	5.000kHz	0.001kHz	
	50 kHz	0.01 kHz	
	100 kHz	0.1 kHz	

Overload Protection : 1000V dc or 1000V ac rms

Resistance			
Function	Range	Resolution	Accuracy
Resistance $\Omega$	400.0 $\Omega$	0.1 $\Omega$	$\pm$ (0.5% of rdg + 3 digits)
	4.000k $\Omega$	1 $\Omega$	$\pm$ (0.5% of rdg + 2 digits)
	40.00k $\Omega$	10 $\Omega$	
	400.0k $\Omega$	100 $\Omega$	
	4.000M $\Omega$	1k $\Omega$	
	40.00M $\Omega$	10k $\Omega$	$\pm$ (1.5% of rdg + 3 digits)

Overload Protection : 1000V dc or 1000V ac rms

Capacitance			
Function	Range	Resolution	Accuracy
Capacitance $\text{—}  \text{—}$	50nF	10pF	<10nF : $\pm$ [5.0% of (rdg-50 digits) + 10 digits] $\pm$ (3.0% of rdg + 5 digits)
	500nF	100pF	$\pm$ (3.0% of rdg + 5 digits)
	5 $\mu$ F	1nF	
	50 $\mu$ F	10nF	
	100 $\mu$ F	100nF	

Overload Protection : 1000V dc or 1000V ac rms

Current			
Function	Range	Resolution	Accuracy
DC Current $\mu$ A $\overline{=}$	400 $\mu$ A	0.1 $\mu$ A	$\pm$ (1.5% of rdg + 3 digits)
	4000 $\mu$ A	1 $\mu$ A	
DC Current mA $\overline{=}$	40mA	0.01mA	
	400mA	0.1mA	
DC Current A $\overline{=}$	4A	1mA	
	10A	10mA	
AC Current <sup>1,2</sup> $\mu$ A $\sim$	400 $\mu$ A	0.1 $\mu$ A	
	4000 $\mu$ A	1 $\mu$ A	
AC Current <sup>1,2</sup> mA $\sim$	40mA	0.01mA	
	400mA	0.1mA	
AC Current <sup>1,2</sup> A $\sim$	4A	1mA	
	10A	10mA	

Overload Protection : F 10A/250V fuse for A range.

F 500mA/250V fuse for  $\mu$ A and mA ranges.

Maximum input current : 400mA dc or 400mA ac rms for  $\mu$ A and mA ranges, 10A dc or 10A ac rms for A ranges.

For measurements > 5A, 4 minutes maximum ON to measure 10 minutes OFF, Above 10A unspecified.

1. Frequency Range : 40Hz - 200Hz
2. Response : Average, calibrated in rms of sine wave.

Temperature			
Function	Range	Resolution	Accuracy
Celsius scale <sup>1</sup> $^{\circ}$ C	-55 $^{\circ}$ C~0 $^{\circ}$ C	0.1 $^{\circ}$ C	$\pm$ (9.0% of rdg + 2 $^{\circ}$ C)
	1 $^{\circ}$ C~400 $^{\circ}$ C		$\pm$ (2.0% of rdg + 1 $^{\circ}$ C)
	401 $^{\circ}$ C~1000 $^{\circ}$ C	1 $^{\circ}$ C	$\pm$ 2.0% of rdg

Overload Protection : 1000V dc or 1000V ac rms

1. Temperature specifications do not include thermocouple errors.

Diode Test			
Function	Range	Resolution	Accuracy
Diode Test $\text{—}  \text{—}$	IV	0.00 IV	1.0% uncertainty

Overload Protection : 1000V dc or 1000V ac rms

Test Condition : Forward DC current approximately 1mA..  
Reversed DC voltage approximately 1.5V.

## Continuity Check Facility

•)) Continuity check (with buzzer sound) facility provided.

\*"CIE" in a continuing efforts to offer excellent products at a fair value, reserves the right to change models, specifications and designs without notice

Note : Inspection if any at our works will be carried out as per facility available only with us

