



## DIGITAL DUAL METER



### FEATURES:

- 3-½ digit LED (red) display.
- DOUBLE / SINGLE display optional.
- 8 mm (0.3 inch) digit height.
- 1.5% full scale input accuracy.
- Low AUX.power dissipation. Typically less than 150mW.
- Low Measuring burden (0.13VA).
- 72 X 72 X 110 mm box size
- Multiple CT/ PT ratios could be provided (optional).

### GENERAL DESCRIPTION:

**DUAL-M** is housing **TWO** digital meters measuring different parameters in a compact package. The Model **DUAL-M** incorporates a **VOLTMETER** & an **AMMETER**. The sensing of voltage & current is done through CT & PT. CT ratio for secondary of 1A or 5A is selectable. Voltage is through PT of secondary 110VAC. The combination of meters makes the instrument economical as many components are shared between two meters. By the addition of CT's & PT's, a wide range of voltage & current can be measured. Care must be taken to add input protection components, where excessive voltage levels may be inadvertently connected to the input.

### ELECTRICAL SPECIFICATIONS:

TYPE	DISPLAY TYPE	INPUT RANGE A.C.	RESOLUTION	ACCURACY CLASS	PACKAGE SIZE	MAX DISPLAY	UNIT A.C.
CT / PT BASED	LED	0 - 200 mA A.C. @ 50Hz	0.1 mA	0.5	72 x 72 x 110	199.9	mA
		0 - 2 A A.C. @ 50Hz	0.001 V	0.5	72 x 72 x 110	1.999	A
		0 - 20 A A.C. @ 50Hz	0.01 V	0.5	72 x 72 x 110	19.99	A

### CHARACTERISTIC:

CHARACTERISTIC	MIN	TYP	MAX	UNIT
AUX POWER SUPPLY (170 - 270 V A.C.)	170	230	270	V A.C.
AUX POWER CONSUMPTION	-	0.13	0.20	VA
ACCURACY	-	1 % +/- 1DIGIT		% +/- 1 DIGITS
RESOLUTION	-	-	-	0.5 % OF FSD
INPUT CURRENT @ V <sub>max</sub> (110V A.C.)	1.0	1.3	1.4	mA

\* PT ratio to be informed at the time of schedule intimation.

**SAFETY FACTOR:**

For Current : 10 Times For 5 Sec.  
 : 2 Times For 6 Min  
 For Voltage : 5 Times For 1 Min. (Protected By Resettable Fuse)

**OPTIONALS:**

1. AC milliamp-meter, DC 20mV & 2 mV DC full scale on request (extra price).
2. RS 232 /RS 485 connectivity on request.
3. Duly calibrated, Tractability can be provided on request.
4. Both AC /DC meters combined is optionally.
5. LCD display on request.
6. Site programmable meters are available (Controller Based).

**OPERATION SPECIFICATION :**
**ABSOLUTE MAXIMUM RATING:**

Operating Voltage (Aux.) : 110 VAC :: 230VAC (optional , 0.2 VA)  
 Operating Temperature : 10 to 50 degrees C, Rh < 75%  
 Storage Temperature : 10 to 80 degrees C, Rh < 75%  
 Size : 72 X72 X110 mm  
 Panel Cutout : 70 X 70 mm  
 Warm up Time : min 30 Sec. ( since designed for continuous rating of 5000 Hrs)

**RANGES:** The Digital Panel meters have a basic range of :

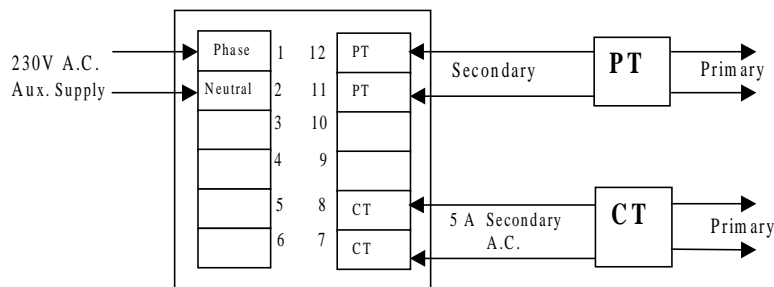
FUNCTION	TYPE
A.C. VOLTMETER/AMMETER(DIRECT)	DUAL - M - TYPE
A.C. VOLTMETER/AMMETER(CT/PT)	DUAL - M - VA/CTPT

**OPTIONAL:**

1. Setting of Ranges & Displays at User's description; (**Note: Trained technical person needed** )
2. Body colors: **BLACK; CREAM**

**QUALITY NORMS**
**ROUTINE TESTS:**

1. Calibration by 4 & 1/2 DMM Traceable Standards to NPL (Third Point);
2. Calibration in Restricted environment @ 20 Deg. Cel,
3. Calibration report for every 10 nos. combined,

**TERMINAL BLOCK & CONNECTION DIAGRAM:**

**PRECAUTION:**

**This DUAL METER is designed for PT and CT input only.**

MINIMUM WARM UP TIME FOR BETTER ACCURACY: 30 SEC

Specifications subjected to change without notice. Details on request.

**OTHER PRODUCTS:**

1 ph/3 ph Energy Meters, Dual meter, Code Lock Systems, PC communication Software, SOLID STATE RELAYS.