

# Microprocessor Watt & Var Digital Meter

MODEL **DMW/DMQ**

## Features:

- Output/Display Range User Selectable
- Dual Aux. Power 110/220V AC
- Wide Input Range
  - Normal Voltage 110V, Effective Range 85 ~ 150V.
  - Normal Current 5A, Effective Range 0 ~ 7.5A.
- Analog or Digital RS-485 Output



Ordering : DMW         Watt Uni-Direction  
 DMW2         Watt Bi-Direction  
 DMQ2         Var Bi-Direction

	Circuit	I/P Voltage	I/P Current	Frequency	W(VAR)O/P	Aux. Power
A	1 $\phi$ 2W	A 55~300V	A 1A	A 50Hz	A 0 ~ 10mA DC	A AC 110/220V (Dual Power)
B	3 $\phi$ 3W	B 300~600V	B 5A	B 60Hz	B 0 ~ 20mA DC	B DC 24V
C	3 $\phi$ 4W				C 4 ~ 20mA DC	C DC 110V
					D 0 ~ 5V DC	D DC 125V
					E 1 ~ 5V DC	E AC/DC 85 ~ 265V
					F RS-485	
					N None	
Y	Other	Y Other	Y Other	Y Other	Y Other	

Specify code number and variable. (e.g. DMW - B - A - A - B - B - A )  
 Code number: model - circuit - input V - input C - frequency - W / VAR output - power  
 3  $\phi$  4  $\omega$  Voltage Line-Neutral

## SPECIFICATIONS:

### INPUT:

- Input Frequency : 50Hz  $\pm$  5Hz, 60Hz  $\pm$  5Hz.
- Input Burden : Voltage 0.25VA/Unit, Current 0.25VA/Unit, at 60Hz.
- Input Over : Normal AC 5A, Current Over 15A Continuous : 50A 10 Sec/Hour ; 400A 0.5 Sec/Hour.
- Input Range : Normal Voltage 110V, Effective Range 85 ~ 150V. Normal Voltage 220V, Effective Range 160 ~ 300V AC.  
 Normal Current 5A, Effective Range 0 ~ 7.5A. Normal Current 1A, Effective Range 0 ~ 1.5A.  
 Normal Ac 110V, Voltage Over 500V Continuous : 1200V 10Sec/Hour.

### OUTPUT:

**DC Current:** 0 - 20 mA DC

**Load resistance drive:** output drive 10 VDC maximum

Output	Load Resistance
0 - 10 mA	1000 $\Omega$
0 - 20 mA	500 $\Omega$
4 - 20 mA	500 $\Omega$

**DC Voltage:** 0 - 10 V DC

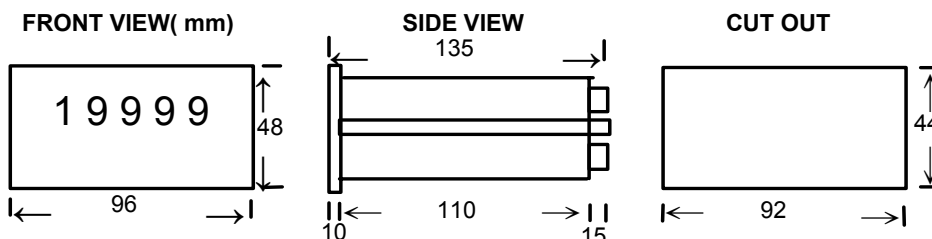
**Load resistance drive:** output drive 5 mA maximum

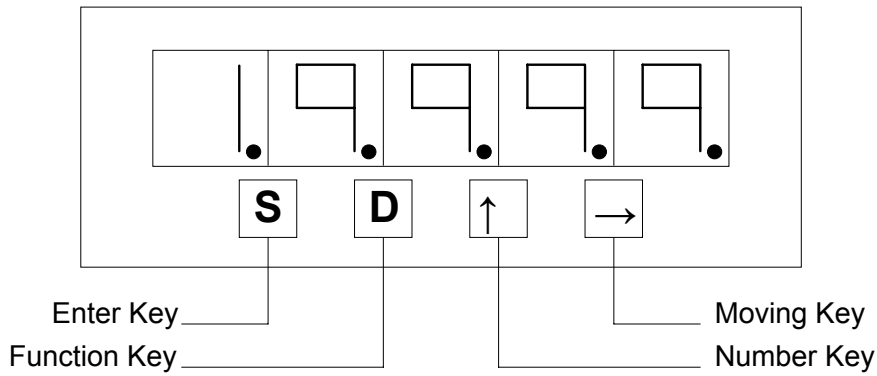
Output	Load Resistance
0 - 5 V	1 K $\Omega$
1 - 5 V	1 K $\Omega$
0 - 10 V	2 K $\Omega$

- Output Protection : Without Damage for Output Open or Short Circuit.
- Output Response Time :  $\leq$  1 Sec.
- Digital Output Load : RS-485 Output, 1200,2400,4800,9600,19200 Baud Rate, User Selectable.

## INSTALLATION & PERFORMANCE:

- Accuracy : 0.2% RD/PF+0.02%FS at 23 $^{\circ}$ C  $\pm$  3 $^{\circ}$ C.
- Display Range : 0.56" Super Rate LED 4-1/2, 5 Digits,  $\pm$ 19999Counts. Display Range User Selectable.
- Dielectric Strength : 2.6KV AC / Min between Input / Power / Case.
- Impulse : 4 KV 1.2x50  $\mu$ S, ANSI C37.90a / 1983.DIN IEC 255 - 4.
- Stability :  $\leq$  0.2%/Year.
- Temperature Coefficient :  $\leq$  100ppm /  $^{\circ}$ C From 0 ~ 60 $^{\circ}$ C.
- Operating Condition : -10 $^{\circ}$ C ~ +85 $^{\circ}$ C 20 ~ 95% RH Non-Condensed.
- Storage Condition : -40 $^{\circ}$ C ~ +105 $^{\circ}$ C 20 ~ 95% RH Non-Condensed.
- Power Supply : AC or DC  $\pm$ 20%, 50 / 60Hz.
- Outline Dimension : 1/8 DIN 96W X 48H X 135D mm.
- Mounting : Panel Flush Mounting.





The Watt, Var meter setting procedures as follows :

Procedures :

- (1) Press "S" key, display "00" blinking
- (2) Press "D" key, enter "01"~"09" functions
- (3) Press "→" key, to change position.
- (4) Press "↑" key, to change number.

Repeat procedure (1)~(4).

Press "D" and "→" at the same time for QUIT.

PRESS "D" TO SAVE SETTING VALUE AFTER "09".

(A) Input/Output/Display Functions "02"~"09" :

- 02 GAIN VALUE
- 03 Decomal point, change decimal point position.
- 04 Change output value 0~20mA, 4~20mA, 0~10mA, 0~5V, 1~5V, 3~5V, 0~1V.  
\* Display 12~20 means 4~12~20mA, display 3~5 means 1~3~5V.
- 05 Output range  
Change output value when the display scale not expect same as output value .  
Example : display 0~1000W, the output can be setting 0~500W/4~20mA.
- 06 Digital output Baud Rate  
1200, 2400, 4800, 9600, 19200.  
\* Display 9200 means 19200.
- 07 Address, 01~99(PC or Host Console Address=0)  
32 devices maximum for RS-485 format.
- 08 Empty.
- 09 Special function : Save, Reset, Uni or Bi Directions etc..  
**DISPLAY "99" PRESS "D" TO SAVE "02"~"09" DATA.**

### Terminal Connection:

