

Microprocessor Watt/Watthour & Var/Varhour Digital Meter

MODEL DMWWH/DMQQH

Features:

- Output/Display Range User Selectable
- Dual Aux. Power 110/220V AC
- WH/VarH Output 0 ~ 200Pulses User Selectable
- Analog/Digital RS-485 and Pulse Output
- 10 Years Power-OFF Memory for WH and VarH
- Dual Display



Ordering : DMWWH Watt/Watthour Uni-Direction
 DMWWH2 Watt/Watthour Bi-Direction
 DMQQH2 Var/Varhour Bi-Direction

Circuit	I/P Voltage	I/P Current	Frequency	W(VAR)O/P	WH(VARH)O/P	Aux. Power
A 1 ϕ 2W	A 55~300V	A 1A	A 50Hz	A 0 ~ 10mA DC	A 1 Count / 1 Pulse	A AC 110/220V (Dual Power)
B 3 ϕ 3W	B 300~600V	B 5A	B 60Hz	B 0 ~ 20mA DC	B 1 Count / 10 Pulse	C DC 24V
C 3 ϕ 4W				C 4 ~ 20mA DC	C 1 Count / 100 Pulse	D DC 110V
				D 0 ~ 5V DC		E DC 125V
				E 1 ~ 5V DC		F AC/DC 85 ~ 265V
Y Other	Y Other	Y Other	Y Other	F RS-485	F RS-485	
				N None	N None	
				Y Other	Y Other	

3 ϕ 4 ω Voltage Line-Neutral

SPECIFICATIONS:

INPUT:

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.
 Input Burden : Voltage 0.25VA/Unit, Current 0.25VA/Unit, at 60Hz.
 Input Frequency : 50Hz \pm 5Hz, 60Hz \pm 5Hz.
 Input Over : Normal AC 5A, Current Over 15A Continuous ; 50A 10 Sec/Hour ; 400A 0.5 Sec/Hour.
 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 Ω

0 - 20 mA : 500 Ω

4 - 20 mA : 500 Ω

DC Voltage: 0 - 10 V DC

Load resistance drive: output drive 5 mA maximum

Output Load Resistance

0 - 5 V : 1 K Ω

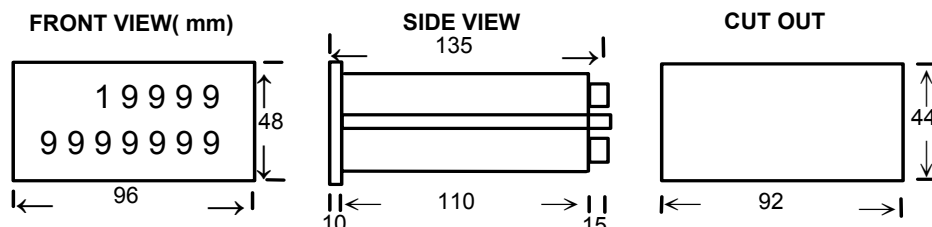
1 - 5 V : 1 K Ω

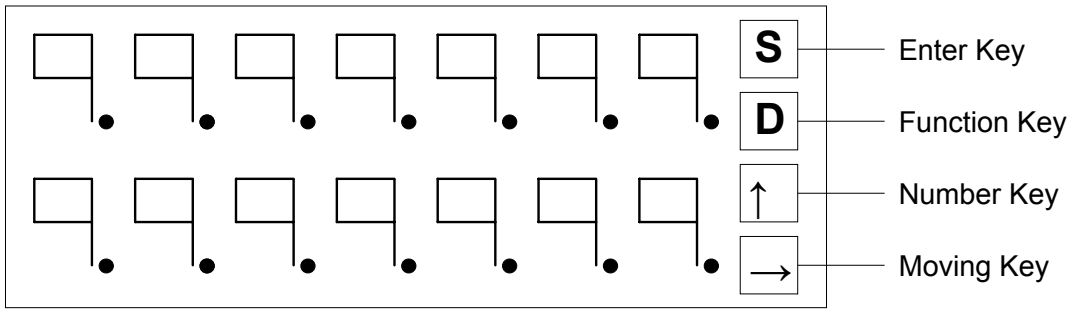
0 - 10 V : 2 K Ω

Output Protection : Without Damage for Output Open or Short Circuit.
 Output Response Time : Watt and Var \leq 1 Sec.
 Digital Output Load : RS-485 Output, 1200,2400,4800,9600,19200 Baud Rate, User Selectable.
 Display Range : Dual Display.
 Up-Row Display Watt or Var, 0.36" Super Rate Led 4-1/2, 5 Digits, \pm 19999 Counts. Display range user selectable.
 Down-Row Display Watthour or Varhour, 0.36" Super Rate LED, 7 Digits, \pm 9999999 Counts.
 Output of WH or VarH : Open Collect Type, Output speed 0~100Pulses User Selectable.
 Effective Range : 5~30V DC, 5~100mA.

INSTALLATION & PERFORMANCE:

Accuracy : 0.2% RD/PF+0.02%FS at 23 $^{\circ}$ C \pm 3 $^{\circ}$ C.
 Dielectric Strength : 2.6KV AC / Min between Input / Power / Case.
 Impulse : 4 KV 1.2x50 μ 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, Watt/Watthour, Var/Varhour 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".

Input/Output/Display Functions "02"~"09" :

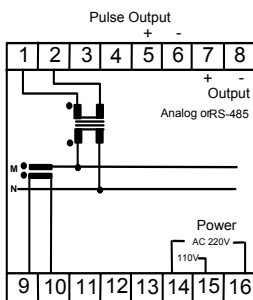
- 02 GAIN VALEU
- 03 Decimal point, change decimal point position.
- 04 Change output value (for Watt and Var only).
0~20mA, 4~20mA, 0~10mA, 0~5V, 1~5V, 3~5V, 0~1V.
* Display 12~20 means 4~12~20mA, display 3~5 means 1~3~5V.
- 05 Output range (for Watt and Var only).
Change output value when the display scale is 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 Watthour or Varhour display counts vs pulse output (for Watthour and Varhour only).
1 count/1,10,100,200, pulse. 1 count/200pulse maximum.
- 09 Special function : Save, Reset, Uni or Bi Directions etc..
DISPLAY "99" PRESS "D" TO SAVE "02"~"09" DATA.

Remarks : Function Key "04" and "05" for Watt and Var Meter only.

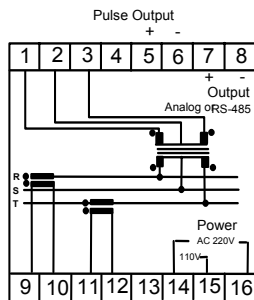
Function Key "08" for Watthour and Varhour Meter only.

Function Key "04", "05", "08" for Watt/Watthour, Var/Varhour Meter.

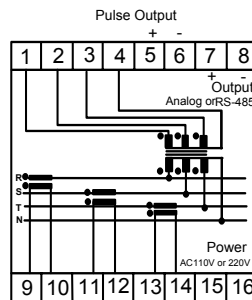
Terminal Connection:



1 § 2W



3 § 3W



3 § 4W

