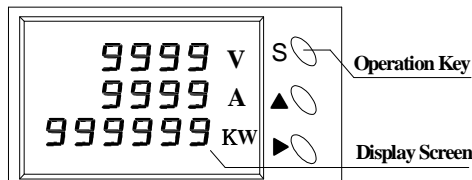


DMDPW MANUAL

1. Operation Panel / Keys



S key : setting/confirm
△ key : select/change number
> key : shift position / turn page

w/ wh Auto
 wh = 10 - digit display for wh(3999999999)

2. Parameter Setting

2-1 Basic Setting

Press "S" to enter 7ENU-01-02-03-04-05-06-07-08-09 Press "△" to enter setting		
Display	Function	Instruction
7ENU Press S	(MENU)	
01 Press △	Mode	No need to set.
02 Press S	Input Voltage Range	Preset as your order specifications. If you order 600V, the preset value is 600.
03 Press S	Input Current Range	Preset as your order specifications. If you order 100A, the preset value is 100
04 Press S	W Unit	Press > key to select W unit. W (W) / KW (KW)
05 Press S	Decimal Point Setting	Press > to set Voltage decimal point. Press △ . Press > to set Ampere decimal point. Press △ Press > to set Watt decimal point. Press S to next setting.
06 Press S	Output signal: Corresponding value(Low)(High): Corresponding group:	Press △ to select 4-20ma/0-20ma/0-5V/1-5V/0-10V Press > and △ to set for Low. Range: 0-9999Count Press > and △ to set for High. Range: 0-9999Count Press S to enter. Press △ to select CH1-2-3
07 Press S	Baud rate Address Format	Press △ to select 9600-19200-38400-2400-4800 Press > to enter. Press △ to set: 1-99 Press > to enter. Press △ to select 8N1-8N2-8E1-8E2-8O1-8O2
08 Press S	Pulse(DO) Output	Press △ to select (100-10-1-0.1-0.01-0.001) Pulse / 1 Count *(1 Count means the display value is accumulated by 1. If the display value changes from 100.1MW to 100.2MW, it means 1Count)
09 Press S	Save setting/ Advance setting	Press S to enter no / YES Press > to select YES . Press S to finish setting.

2-2 Relay Setting (Alarm)

Press "S" to enter 7ENU Press ">" to enter RY1-RY2-RY3-RY4-DELA-SAVE		
Display	Function	Instruction
7ENU Press > to enter	(MENU)	
H-L Press △	Hi - Low and Group setting	Press △ and > to set HI_Alarm / LO_Alarm and corresponding group: 1 or 2 or 3
RY-1 Press S	RY1 setting Dead band Delay time	Press > and △ to set action point :0-9999Count Press > and △ to set dead band :0-9999Count Press > and △ to set delay time: 0-999 secs
RY-2 Press S	RY2 setting Dead band Delay time	Press > and △ to set action point :0-9999Count Press > and △ to set dead band :0-9999Count Press > and △ to set delay time: 0-999 secs
RY-3 Press S	RY3 setting Dead band Delay time	Press > and △ to set action point :0-9999Count Press > and △ to set dead band :0-9999Count Press > and △ to set delay time: 0-999 secs
RY-4 Press S	RY4 setting Dead band Delay time	Press > and △ to set action point :0-9999Count Press > and △ to set dead band :0-9999Count Press > and △ to set delay time: 0-999 secs
DELA Press S	Start delay time (1-999 secs)	Press > and △ to set start delay time: 0-999 secs
SAVE Press S	Save setting	Press > and △ to key in password as 99 . Press S to finish setting.

3. Setting Examples:

EX1. Input Voltage: 600V ; Current: 30A Display: 600.0V ; 30.00A ; 18.00KW

Parameter setting:

01	No need setting	05	A88.8 / B8.88 / C8.88
02	600	06	No need setting
03	30	07	No need setting
04	KW	08	No need setting

EX2. Input Voltage: 600V ; Current: 1000/60mv Display: 600.0V ; 1000A ; 600.0KW

Output: 4-20ma (0-600.0A) corresponding to Voltage display value. Pulse: 1P/1KWH

Parameter setting:

01	No need setting	05	A88.8 / B888 / C88.8
02	600	06	4-20 H=6000 L=0000
03	1000	07	No need setting
04	KW	08	0.1 Pulse/1Count=(1 PULSE / 1 KWH)

4.Communication Setting

MODBUS – RTU MODE

Data Format

(ID Number) 1Byte	(Function Code) 1Byte	(Data) N Byte	CRC 2 Byte
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Function Code

03 (03H)	Read parameters of the meter
06 (06H)	Set parameter.

Ex1. Read the Voltage display value

Master sends message TX : 01 03 00 01 00 01 D5 CA				
ID Number 1Byte (01H)	Function 1Byte (03H)	Address 2Byte (00 01H)	DATA number 2Byte (00 01H)	CRC 2Byte (D5 CAH)

Instruction: Master calls meter ID No.1 to read address 0002.Data number 0001

If the meter displays 1000

Meter responses to Master RX : 01 03 02 03 E8 B8 FA				
ID Number (01H)	Function (03H)	Byte (02H)	Data (03E8H)	CRC (B8 FAH)

Ex2. Read parameters of the Meter

Master sends message to Meter				
ID Number 1Byte (01H)	Function 1Byte (03H)	Address 2Byte (00 02H)	DATA number 2Byte (xxH,xxH = N)	CRC 2Byte (xxH,xxH)

Meter responses to Master

ID Number (01H)	Function (03H)	Byte (XXH = N)	Data (N*2Byte) XxH,xxH,xxH,....	CRC (xxH,xxH)
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Parameter/Address Cross-reference(Refer to ModScan32)

Address	Length	Name	Instruction	(Read/Write)
01 (40002)	2Byte	Voltage display value	-32768-32767	R
02 (40003)	2Byte	Ampere display value	-32768-32767	R
03 (40004)	2Byte	Watt display value	-32768-32767	R
04 (40005)Low 05 (40006)High	4Byte	+WH (accumulated value)	Integral 0-3999999999Count	R
06 (40005)Low 07 (40006)High	4Byte	-WH (accumulated value)	Integral 0-3999999999Count	
08 (40009)	2Byte	Decimal Point / W unit	0000 0000 0000 0000 W=0 DS3 DS2 DS1 KW=1 (Decimal Point)	R
09 (40010)	2Byte	Relay state	Bit0=RY1 0001 is ON Bit1=RY2 0010 is ON Bit2=RY3 0100 is ON Bit3=RY4 1000 is ON	R

5. Auto page-turning setting

Operation

In 09-00, key in 43 and press S to enter **AUTO**.Press Δ to select **YES** or **no**
Press S to 99.Press S to enter **no** / **YES**. Press Δ to select **YES** to finish setting.

6. Reset Accumulated Value

Operation

In 09-00, key in 88 and press S to enter **CLEAR**.Press Δ to select **YES** or **no**
Press S to confirm.

7. Buffer Size (The number of measurements for RMS sliding averaging)

1. High speed (8 entries)
2. Medium speed (16 entries)
3. Low speed (32 entries)

Preset as medium:(**16 d**)

Setting : In 09-00,key in 11 and press S to set. Press Δ to select High(**HI 9H**) Medium(**16 d**) Low(**L 01**)
Key in 99 to confirm and save.

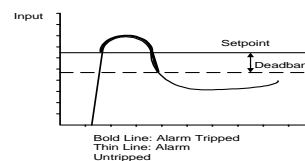
8. Display Malfunction

Display	Instruction
Err	Only occur when input signal is 4-20ma or 1-5V Problem : Incorrect connection/Incorrect input signal
FULL	Display value exceeds range 9999 Problem : Incorrect input signal/Incorrect input function setting/Input signal is over 9999

9. Alarm Function Illustration

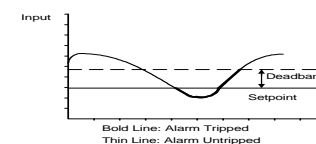
1.HIGH ALARM : (Deadband)

When input signal is over setpoint, Relay is activated until signal is under Deadband



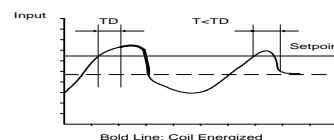
2.LOW ALARM : (Deadband)

When Input signal is under setpoint, Relay is activated until signal is over Deadband



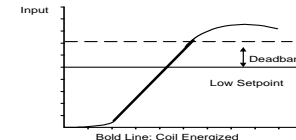
3.ON DELAYTIME :

When input signal is over setpoint, relay will be activated after the set time.



4.ZERO NO ALARM :

When input signal is under 0.3%,no low alarm function Set 58 >0 to activate this function.



5.START DELAY TIME :

Input signal starts from 0. No alarm function within TS.

