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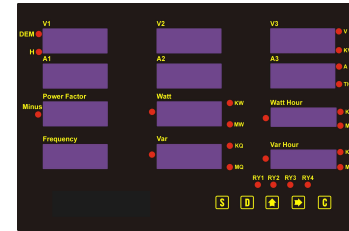
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1. Panel



MODEL : DMMP

1-1 Keys

Name	Function	Instruction
S	Setting key	Enter setting mode
D	Confirm / Reset	Confirm setting/Reset accumulated value
↑	Change number	Change number
→	Change position	Change position
C	Reset WH VarH / (Page down)	Reset WH VarH / Switch $\pm$ WH and QH

2. Display

Press "↑"

3P4W Display

R-V	S-V	T-V
R-A	S-A	T-A
PF	$\pm \Sigma W$	$\pm WH$
HZ	$\pm \Sigma O$	$\pm VarH$

3P3W Display

RS-V	ST-V	TR-V
R-A	S-A	T-A
PF	$\pm \Sigma W$	$\pm WH$
HZ	$\pm \Sigma O$	$\pm VarH$

1P3W Display

L-L	L1	L2
L1-A		L2-A
PF	$\pm \Sigma W$	$\pm WH$
HZ	$\pm \Sigma O$	$\pm VarH$

1P2W Display

V		
A		
PF	$\pm \Sigma W$	$\pm WH$
HZ	$\pm \Sigma O$	$\pm VarH$

3.Parameter setting

3-1 Operation Mode

Press "S" to enter 01-02-03-04-05-06-07-08-09 function. Press "D" to enter setting.

	Display	Function	Instruction
01	3P4w	System select	Press "→" to choose 3P3W-1P2W-1P-3W-3P4W Press "D" to enter 02.
02	PT	Set PT ratio	Press "→" and "↑" to set PT ratio. Press "D" to enter 03
03	V-unit	Set voltage unit	Press "→" to choose V—KV Press "D" to enter 04
04	V-dot	Set voltage decimal point position	Press "→" to set decimal point position. Press "D" to enter 05
05	CT	Set CT ratio	Press "→" and "↑" to set CT ratio. Press "D" to enter 06
06	A-dot	Set current decimal point position.	Press "→" to set decimal point position 按 "D" to enter 07.
07	W-unit	Set Watt unit	Press "→" to choose KW--MW、Kvar—Mvar Press "D" to enter 08
08	W-dot	Set Watt decimal point position	Press "→" to set decimal point position Press "D" to enter 09.
09	OP-00	Advanced setting	OP-99 Save setting.

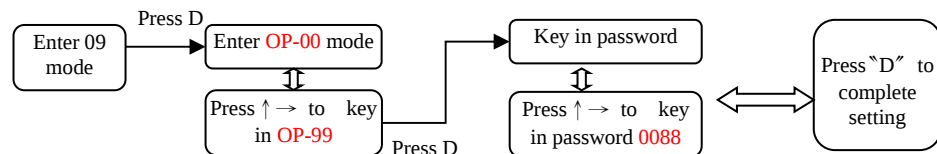
In 09,press "D" to enter OP-00. Press "→" and "↑" to enter advanced setting.

OP	Function	Instruction
06	Baud rate	Press "→" to switch 9600-19200-38400-2400-4800 Press "D" to confirm / leave
07	Address	Press "→" and "↑" to choose address 1-255 Press "D" to confirm / leave
60	Analog output setting	Press "→" and "↑" to set Press "D" to confirm / leave
87	Change password	Press "→" to set Press "D" to confirm / leave
99	Save	Press "D" to key in password.

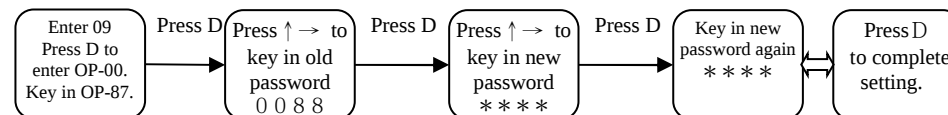
3-2 Save setting (CODE:OP-99)

DMMP has password protection , any setting will only be effective after keying in the password.

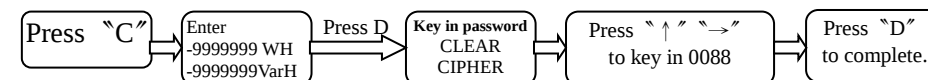
Preset password: 0088



3-3 Change password (CODE: OP-87)



3-4 Reset WH and VarH values



3-5 Example:

EX.1 System: 3P3W Voltage:2.2KV/110V Current: 1000/5A
PT ratio =20 CT ratio =200 Display: 2.2KV 1000A 3810KW

Press S to enter setting mode "01" blinks.

Press D to enter 01 to select system. Press "→" to select 3 P 3 W.Press D to confirm.
Press D to enter 02 to set PT ratio. Press "→" to enter setting. Press ↑→ to set as 0020 .Press D to confirm.
Press D to enter 03 to set voltage unit. Press "→" to select "KV" . Press D to confirm.
Press D to enter 04 to set voltage decimal point position.Press "→" to set as 000.0. Press D to confirm.
Press D to enter 05 to set CT ratio. Press "→" to enter setting. Press ↑→ to set as 0200 .Press D to confirm.
Press D to enter 06 to set current decimal point position.Press "→" to set as 0000. Press D to confirm
Press D to enter 07 to set watt unit. Press "→" to select "KW" . Press D to confirm.
Press D to enter 08 to set watt decimal point position.Press "→" to set as 0000. Press D to confirm
Press D to enter OP-00 mode.Press "↑" "→" to key in 99.Press D to enter save setting.
Press "↑" "→" to key in password 0088 .Press D to confirm.

EX.2 System: 3P4W Voltage: 6.6KV/110V Current:6000/5A
PT ratio=60、CT ratio=1200 Display: 6.60KV 6000A 118.8MW

Press S to enter setting mode "01" blinks.

Press D to enter 01 to select system. Press "→" to select 3 P 4W.Press D to confirm.
Press D to enter 02 to set PT ratio. Press "→" to enter setting. Press ↑→ to set as 0060 .Press D to confirm
Press D to enter 03 to set voltage unit. Press "→" to select "KV" . Press D to confirm.
Press D to enter 04 to set voltage decimal point position.Press "→" to set as 00.00. Press D to confirm.
Press D to enter 05 to set CT ratio. Press "→" to enter setting. Press ↑→ to set as 1200 .Press D to confirm.
Press D to enter 06 to set current decimal point position.Press "→" to set as 0000. Press D to confirm 按 D
Press D to enter 07 to set watt unit. Press "→" to select "MW" . Press D to confirm.
Press D to enter 08 to set watt decimal point position.Press "→" to set as 000.0. Press D to confirm 按 D 鍵
Press D to enter OP-00 mode.Press "↑" "→" to key in 99.Press D to enter save setting.
Press "↑" "→" to key in password 0088 .Press D to confirm.

Note :

**Any parameter setting will only be effective after keying in password.
Preset password: 0088**

4. Communication Setting

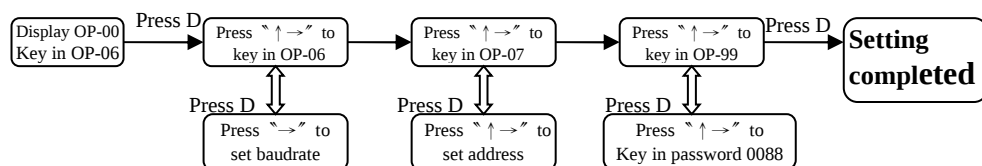
4-1 Features

1. Modbus RTU Protocol
2. Baud rate (1200-2400-4800-9600-19200-38400 selectable)

4-2 Function setting code

1. Baud rate (9600-19200-38400-1200-2400-4800 selectable)
2. Data package (8N1)
Start bit: 1bit , Data bit: 8 bits , Stop bit: 1bit. Without parity check bit
3. Address (1-255 selectable)

4-3 Operation



4-4 Communication format

MODBUS – RTU MODE

Data format

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

Function code

03 (03H)	Read several parameters
06 (06H)	Set parameter.

EX.1 Read R phase voltage of the meter.

Master sends message to Meter (Total 8byte)				
ID number	Function code	Address	DATA number	CRC
1Byte	1Byte	2Byte	2Byte	2Byte
(01H)	(03H)	(00 02H)	(00 01H)	(xxH,xxH)

Instruction:

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

Supposing the meter displays 380.0V

Meter responds to Master.				
ID number	Function code	Data Byte	Data	CRC
(01H)	(03H)	(02H)	(ED8H)	(xxH,xxH)

EX.2 Read several parameters of the meter.

Master sends message to Meter (Total 8byte)				
ID number	Function code	Address	DATA number	CRC
1Byte	1Byte	2Byte	2Byte	2Byte
(01H)	(03H)	(00 02H)	(xxH,xxH = N)	(xxH,xxH)

Meter responds to Master.				
ID number	Function code	Data Byte	Data	CRC
(01H)	(03H)	(XXH = N)	(N*2Byte) XxH,xxH.xxH,....	(xxH,xxH)

EX.3 . Set CT ratio CT=100 (Function Code 06H ; CT address 40027)

Master sends message to Meter				
ID number	Function code	Address	DATA number	CRC
1Byte	1Byte	2Byte	2Byte	2Byte
(01H)	(06H)	(1BH)	(0064H)	(xxH,xxH)

4-5. Value/Address cross-reference(According to ModScan32)

Address	Name	Note / Feature	
40002	V1	R-S phase Voltage	
40003	V2	S-T phase Voltage	
40004	V3	T-R phase Voltage	
40005	A1	R phase Current	
40006	A2	S phase Current	
40007	A3	T phase Current	
40008	W1	R phase Watt	
40009	W2	S phase Watt	
40010	W3	T phase Watt	
40011	W	Total WATT of R.S.T	
40012	Q	Total VAR of R.S.T	
40013	PF	Power Factor	
40014	HZ	Frequency	
40015	+WH	Total Watthour (Positive) Long type	40015 Lo-Word
40016			40016 Hi-Word
40017	-WH	Total Watthour (Negative) Long type	40017 Lo-Word
40018			40018 Hi-Word
40019	+QH	Total Varhour (Positive) Long type	40019 Lo-Word
40020			40020 Hi-Word
40021	-QH	Total Varhour (Negative) Long type	40021 Lo-Word
40022			40022 Hi-Word
40023	W,V,A Point	(1 Word)0000 0011 0001 0011 W=bit8-bit11 0011 V=bit4-bit7 0001 A=bit0-bit3 0011	
40024	Realy W/V Unit	Bit7(RY4) Bit6(RY3) Bit5(RY2) Bit4(RY1) Bit2(1=kv 0=V) Bit1(1=MW 0=KW) Bit0(Demand 0=W 1=V/A)	
40025	BaudRate	0=1200,1=2400,2=4800,3=9600,4=19200,5=378400	
40026	Address	1-255	
40027	CT	CT ratio 0-9999	
40028	PT	PT ratio 0-9999	
40029	MODE	0=3P4W 1=1P2W 2=1P3W 3=3P3W	