

DP5 Series 5 digit Thumb Switch Setting Current/Voltage Meter



Features:

- ※ True value measure, speed 10 time/second
- ※ Accuracy : $\pm 0.2\%FS$
- ※ With hysteresis alarm function
- ※ With 3 group of alarm output function (Hi, Go, Lo)
- ※ With analogue 4-20mA or 0-10V output
- ※ With RS485 communication function
- ※ High-precision display decimal point automatic shift display range 00000-99999

1. Ordering Code:

DP5 I — P □ □ □ □ — — — — — Default: No RS485 T: With RS485

Power supply: Default: 90-260V AC/DC

Range: For example 900 means the range of current is 900A or voltage 900V

Measuring A V : AC voltage A A : AC current D V : DC voltage D A : DC current
AV/AA: Customized range DV/DA Customized range

Output P : Hi&Lo control output Default: Without control output

Analogue I : 4-20mA or 0-10V analogue Default: without analogue output

DP5 Series 5 digit Thumb Switch Setting Current/Voltage Meter

2. Models:

A. AC Voltage Meter

Model	Range	Resolution	Impedance	Transformer	Accuracy
DP5(I) - PAV20	20.000 V	1 mV	1 M Ω	Direct Input	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAV200	200.00 V	10 mV	1 M Ω	Direct Input	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAV600	600.00 V	10 mV	1 M Ω	Direct Input	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAV3KV	3000.0 V	100mV	1 M Ω	3 KV : 100 V	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAV10KV	10000 V	1 V	1 M Ω	10 KV : 100 V	$\pm 0.2\%FS \pm 3$ digit

B. AC Current Meter

Model	Range	Resolution	Transformer CT	Accuracy
DP5(I) - PAA0.2	200.00 mA	10 μ A	Direct Input	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA2	2.0000A	100 μ A	Direct Input	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA5	5.0000A	100 μ A	Direct Input	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA20	20.000 A	1 mA	20 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA100	100.00A	10 mA	100 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA150	150.00A	10 mA	150 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA200	200.00A	10 mA	200 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA500	500.00A	10 mA	500 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA1000	1000.0A	100 mA	1000 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA1500	1500.0A	100 mA	1500 A/5 A	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PAA5000	5000.0A	100 mA	5000 A/5 A	$\pm 0.2\%FS \pm 3$ digit

C. DC Voltage Meter

Model	Range	Resolution	Impedance	Accuracy
DP5(I) - PDV0.2	900.00 mV	10 μ V	1 M Ω	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PDV9	9.0000V	100 μ V	1 M Ω	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PDV90	90.000V	1 mV	1 M Ω	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PDV200	200.00V	10 mV	1 M Ω	$\pm 0.2\%FS \pm 3$ digit
DP5(I) - PDV500	500.00V	10 mV	1 M Ω	$\pm 0.2\%FS \pm 3$ digit

D. DC Current Meter

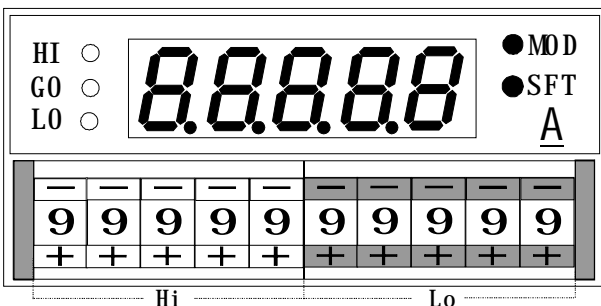
Model	Range	Resolution	Divider	Accuracy
DP5(I)-PDA0.0002	200.00 uA	10 nA	Direct Input	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA0.002	2.0000 mA	100 nA	Direct Input	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA0.02	20.000mA	1 uA	Direct Input	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA0.2	200.00mA	10 uA	Direct Input	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA2	2.0000A	100 uA	Direct Input	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA5	5.0000A	100 uA	Direct Input	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA20	20.000A	1 mA	20 A/75 mV	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA500	500.00A	10 mA	500 A/75 mV	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA1000	1000.0 A	100 mA	1000 A/75 mV	$\pm 0.2\%FS \pm 3\text{digit}$
DP5(I)-PDA5000	5000.0A	100 mA	5000 A/75 mV	$\pm 0.2\%Fs \pm 3\text{digit}$

- a. The models and specifications of current transformers, voltage transformers, and shunts listed in the table are basic types. Other ranges, such as AC/DC 15A, 30A, 70A, 300A, 5000A... AC voltage 1KV, 6KV, 11KV, 110KV.... All can be supplied according to user requirements.
- b. The secondary rated current of the current transformer is 5A, and the secondary rated voltage of the AC voltage transformer is 100V, and the DC current is shunt. The secondary rated voltage of the device is 75mV, and the user needs to explain if the secondary rated voltage and current are other values
- c. According to user requirements, instruments and current transformers, voltage transformers, and shunts can be supplied together.

3. Technical Parameters:

Measuring		Control	
Measure Mode	Using a dedicated measurement chip, high accuracy, and sampling speed, it can measure the true value of a variety of waveforms	Control Mode	8-bit microcomputer control with high anti-interference ability
Frequency	<2KHZ	Setting range	Hi & Lo limit
Noise suppression	\geq NMR 40dB (50HZ/60HZ)	Compare conditions	1 Set value > Hi value 2 Hi value > Set value > Lo value 3 Set value < Hi value
Power	90~260V AC/DC	Output mode	Relay
Consumption	<8W	Relay load	3A 250VAC or 3A 30V DC
Insulation	\geq 20M Ω		
Resistance	DC500V, >200M		
Anti-interference	IEC 801 3G		
Environment	-10~50 $^{\circ}$ C <85% RH		

4. Panel Diagram:



MOD	Mode/Set button
SFT	Parameter change or select button
HI	Hi output indication lamp
GO	Normally running indication lamp
LO	Lo output indication lamp
Left thumb switch Hi	Hi setting value (white)
Right thumb switch Lo	Lo setting value (black)

Please attention the Hi setting value must be higher than Lo setting value. Otherwise the meter will not work normally.

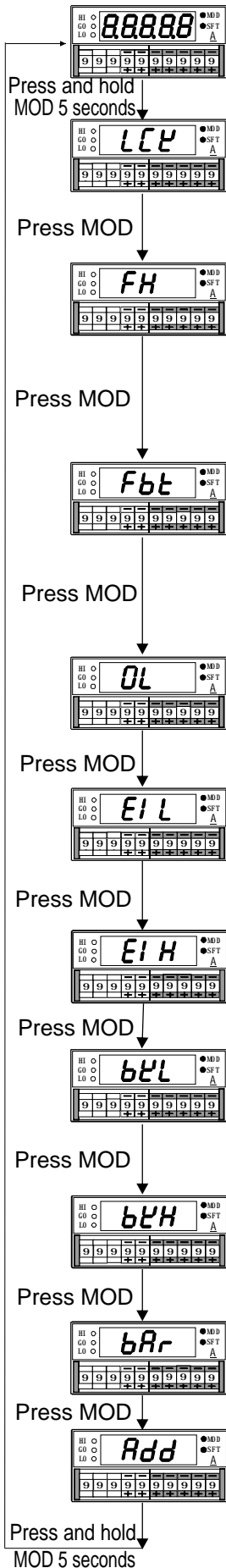
5. Operation Menu:

A. Menu Meaning and Operation:

Press the MOD button once in the measurement state to enter the menu parameter setting.

The parameter value can be set by using "SFT" and MOD button.

The system will automatically return to the measurement status by holding MOD for 3 seconds.



Password, LCK=00055 parameters can be modified, LCK=other, the parameters cannot be consulted, cannot be modified, only the setting value can be modified.

Operation method: Press and hold MOD for 5s and press the SFT, the LED will display the original setting value of the LCK, press the black thumb switch to get the required value, and press the MOD to confirm

Full scale value. Setting range 0.0000-99999. Example display value=5.0000 if FH set to be 20.000. Operation method: In the measured value state, press the MOD button once, and the LED will appear FH (if you press the MOD button again, the next parameter FBT will appear), when LED displays FH, press the "SFT" key, The LED displays the original setting value of FH, if you want to modify FH and then press the "SFT", the value of the LED display is the same as the value of the right thumb switch and there is a decimal point flashing, press the black thumb switch to get the required value, press the MOD, Press "SET" to modify the decimal point position, set the decimal point and the value, press the MOD key to confirm.

Filtering constant, there is a median function inside the meter, when the input signal is disturbed and the display jumps, the value of FBT can be modified to make the display smooth. Setting range: 0-9 factory set to 0, generally allowed to modify.

Operation method: When the LED displays FbT, press the "SFT", The original setting value of FbT will be displayed, and then press the "SFT" key, Modify the the value of the first digit of the the right black thumb switch, to make its value the same as the value of the last digit of the flashing LED.

Zero point shielded. Setting range 0-9999, When the zero point does not display zero. For example, the zero point display 3, then set this parameter to be larger than 3.

Analogue Lo value. For example, the range of meter is 0-600.00V, when EIL set to be 100.00, if the display value is lower than 100.00, then the output is 4.00mA. The setting range is 0.0000-99999. The factory setting is 0.0000

Analogue Hi value. For example, the range of meter is 0-600.00V, when EIL set to be 500.00, if the display value is lower than 500.00, then the output is 20.00mA.

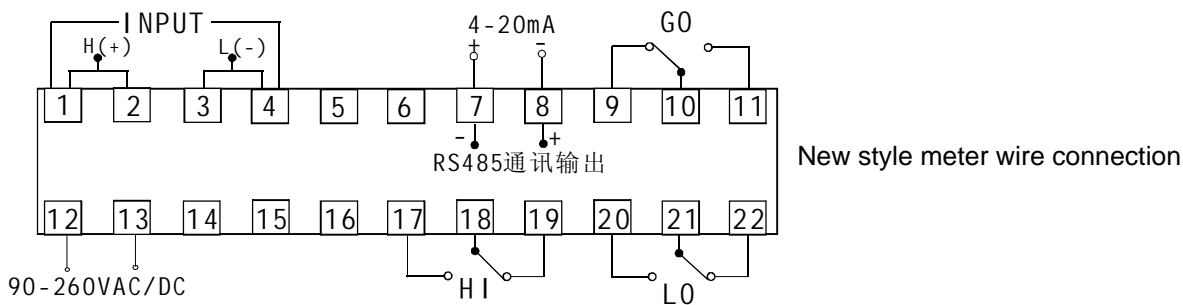
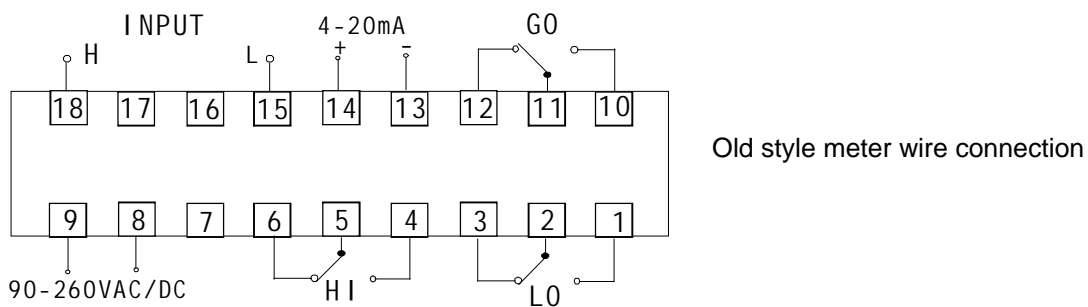
The low alarm hysteresis value. This parameter can be used to eliminate the alarm output caused by the display value changing back and forth at the low alarm value. For example, when the low alarm is set to 10.000 and BKL=0.05, the relay L0 will alarm when the display value \dot{y} 10.000. When the indicator light L0 is on, and the display value is \dot{y} to 10.050, the relay L0 will cancel the alarm. The indicator light LO is off. The setting range is 0.0000-99999, the factory setting is 0, and the operation method is the same as EIL.

The low alarm hysteresis value. This parameter can be used to eliminate the alarm output caused by the display value changing back and forth at the low alarm value. and the operation method is the same as EIL.

Communication baud rate. Set range: 4.8K, 9.6K factory set to 096. 4.8K=048, 9.6K=096 (other parameters are invalid). The operation method is the same as that of FBT.

Communication address. Set range: 0-255, factory set to 1. Description: The operation method is the same as FBT, but the data read is the first three digits on the right, when the value of the first three digits on the right is greater than 255, LED displays 255

6. Wire Connection



If any change, please refer the wire connection shown on the meter.

7. Cautions

1. The storage temperature is $-10\sim 50\text{ }^{\circ}\text{C}$, long-term storage should avoid direct light, and the power is turned on once every six months, and the power on time is not less than 3 hours.
2. The input signal line is connected with the low end of the signal with a twisted pair shielding layer, and if the input signal is accompanied by interference, a filter should be used in the line.
3. The instrument is only used when there is no dust, chemicals, and harmful gases invading the instrument components.

8. Common Faults

1. If there is no measurement display value or the display value is large or small, check whether the FH value of the menu is 0 or other values.
2. The alarm value is too large, and the bkL and bkH values in the check menu are set to 0 at the factory.
3. The alarm output is incorrect, check whether the Hi value of the code drawing is less than the Lo value.