



4 Digit Programmable Voltmeter MODEL : SMP35SN



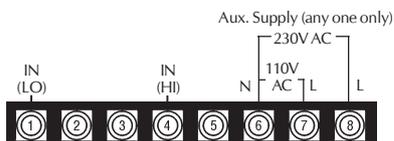
USER MANUAL (V1.2)

Specifications :

- Measuring method TRMS using microcontroller
- Display type RED LED Super Bright Display
- Maximum Display 0-9999 counts (4 Digit)
- Overrange Indication -OL-
- Under range Indication -UL-
- Resolution 0.1 to 1 (depending on PTR)
- Accuracy $\pm 0.5\%$ FSD
- Sampling Rate 2.5 Sampler/Second
- Maximum Overload 1.2 times continuous
- Faceplate/Lens Red Antiglare Faceplate with Annunciators
- Mounting Clamps Sturdy, Derlin (Engineering plastic)
- VA Burden (Typical) Auxiliary : < 1.5VA
Input : < 0.5VA
- Frequency Response 45-65Hz
- Environmental conditions 0 to 55°C, <70% RH (Operation)
-10 to 70°C, <70%RH (Storage)
- Dielectric strength 2.5 KV at 50Hz for 1 minute between Input, Auxiliary & Case
- Impulse withstand 3.5KV, 1.2/50 S.
- Case/Housing Material Black ABS, Dimension as per DIN 43700
- Connectors Terminal Block : Thermoplastic (UL 94V-0) With Tin Plated Brass Terminals
- Display Stability Within ± 2 digits
- Display Digit Height 0.56" / 14.2mm
- Auxiliary Supply (Dual) 230V AC $\pm 10\%$ / 110V AC $\pm 10\%$ @ 50 Hz

2

Terminal Connection



Power ON the meter, meter will display measured readings.

Default Factory Setting :

PTR : 1

Programming Mode :

To configure the meter, Press "P" key, the meter will display "----". Enter the Password to configure the meter. Password is "4321".

If it is not required to configure the meter press "P" key again, meter will start displaying measured reading.

To change digit 0 to 9 use "▲" Key and to shift left use "◀" Key.

e.g. Enter Password "4321".

Press "▲" key "---1"

Press "◀" key followed by "▲" key "--11"

Press "▲" key again "--21"

Press "◀" key followed by "▲" key "-121"

Press "▲"key again "-221"

Press "▲"key again "-321"

Press "◀"key followed by "▲" key "1321"

Press "▲"key again "2321"

Press "▲"key again "3321"

Press "▲"key again "4321"

Press "P" key to enter setup. Meter will display "Ptr".

(If entered password is wrong and "P" key is pressed, meter will

start displaying measured readings.)

Press "P" key to configure PT ratio.

Meter will display "0001" with right most digit i.e. "1" will be blinking.

To change digit 0 to 9 use "▲" Key and to shift left use "◀" Key.

Enter required PT ratio.

e.g. if PT is 33KV / 110V then

PT ratio = PT primary / PT secondary.

PT ratio = 33000 / 110 = 300.

To enter the PT ratio with decimal point, press "◀" key after left most digit starts blinking. Now no digit will blink. Press "▲" key to change decimal point. Initially decimal point will appear at second digit from right side. Press "▲" key to shift decimal point left side. After decimal point reaches at left most digit if user presses "▲" key decimal point will disappear. Press "P" to enter. Now meter will display the measured values. For Measured Value > 9999, the LED for "K" (Kilo) will glow.

TEST RESULTS :

INPUT (V)	0	50	100	150	200	250	300	350	400	450	500
RESULT	UL	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

MECO INSTRUMENTS PRIVATE LTD.

Plot No. EL-1, MIDC Electronic Zone, TTC Industrial Area,
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4 Digit Programmable Ammeter MODEL : SMP35SN



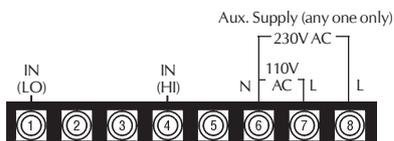
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● Display type	RED LED Super Bright Display
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● Overrange Indication	-OL-
● Under range Indication	-UL-
● Resolution	0.001 to 1 (depending on CTP)
● Accuracy	± 0.5% FSD
● Sampling Rate	2.5 Samples/Second
● Maximum Overload	2 times continuous
● Faceplate/Lens	Red Antiglare Faceplate with Annunciators
● Mounting Clamps	Sturdy, Derlin (Engineering plastic)
● VA Burden (Typical)	Auxiliary : < 1.5VA Input : < 0.5VA
● Frequency Response	45-65Hz
● Environmental conditions	0 to 55°C, <70% RH (Operation) -10 to 70°C, <70%RH (Storage)
● Dielectric strength	2.5 KV at 50Hz for 1 minute between Input, Auxiliary & Case
● Impulse withstand	3.5KV, 1.2/50 S.
● Case/Housing Material	Black ABS, Dimension as per DIN 43700
● Connectors	Terminal Block : Thermoplastic (UL 94V-0) With Tin Plated Brass Terminals
● Display Stability	Within ± 2 digits
● Display Digit Height	0.56" / 14.2mm
● Auxiliary Supply (Dual)	230V AC ±10% / 110V AC ±10% @50 Hz

2

Terminal Connection



Power ON the meter, meter will display measured readings.

Default Factory Setting :

A1 / A5 : A5 (5A Range)

CTP : 5

Programming Mode :

To configure the meter, Press "P" key, the meter will display "----". Enter the Password to configure the meter. Password is "4321". If it is not required to configure the meter press "P" key again, meter will start displaying measured reading.

To change digit 0 to 9 use "▲" Key and to shift left use "◀" Key. e.g. Enter Password "4321".

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Press "◀"key followed by "▲" key "1321"

Press "▲"key again "2321"

Press "▲"key again "3321"

Press "▲"key again "4321". Press "P" key to enter setup.

Use "▲" key to change between "A 1" and "A 5" (1A range or 5A range). (If entered password is wrong and "P" key is pressed, meter will start displaying measured readings.)

Press "P" key to enter the desired range.

3

Note : If the selected range is 5A then short the jumper J2 provided at front PCB in the meter.

If the selected range is 1A then open the jumper J2 provided at front PCB in the meter. Remove filter plate to open/short J2 jumper.

Meter will display "Ctp". Press "P" key to configure the CT primary. Meter will display "0001" with right most digit i.e. "1" will be blinking.

Note : In case of 5A range CT primary should be greater than or equal to 5.

To change digit 0 to 9 use "▲" Key and to shift left use "◀" Key. Enter required CT primary.

e.g. If CT being used is 1000/5A user should enter 1000 as CT primary. Selected current range should be A 5 (i.e. 5A range).

To enter the CT primary with decimal point, press, "◀" key after left most digit starts blinking. Now no digit will blink. Press "▲" key to change decimal point. Initially decimal point will appear at second digit from right side. Press "▲" key to shift decimal point left side. After decimal point reaches at left most digit if user presses "▲" key decimal point will disappear. Press "P" Key to enter. Now meter will display the measured values. For Measured Value > 9999, the LED for "K" (Kilo) will glow.

TEST RESULTS :

INPUT (5A)	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
INPUT (1A)	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
RESULT	UL	OK									

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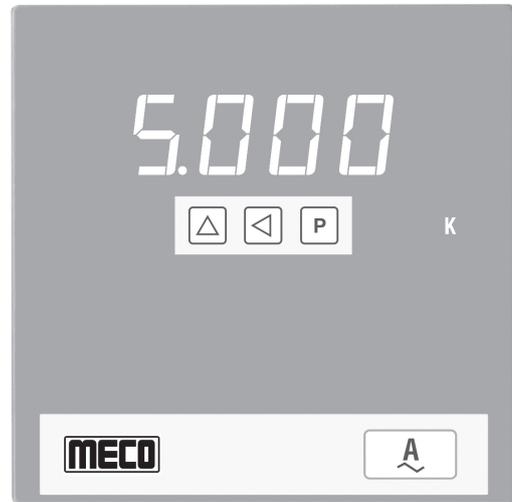
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4



4 Digit Programmable Ammeter MODEL : SMP9635SN



Note : If the selected range is 5A then short the jumper 1A/5A provided at front PCB in the meter.

If the selected range is 1A then open the jumper 1A/5A provided at front PCB in the meter. Remove filter plate to open/short 1A/5A jumper.

Meter will display "Ctp". Press "P" key to configure the CT primary. Meter will display "0001" with right most digit i.e. "1" will be blinking.

Note : In case of 5A range CT primary should be greater than or equal to 5.

To change digit 0 to 9 use "▲" Key and to shift left use "◀" Key. Enter required CT primary.

e.g. If CT being used is 1000/5A user should enter 1000 as CT primary. Selected current range should be A 5 (i.e. 5A range).

To enter the CT primary with decimal point, press, "◀" key after left most digit starts blinking. Now no digit will blink. Press "▲" key to change decimal point. Initially decimal point will appear at second digit from right side. Press "▲" key to shift decimal point left side. After decimal point reaches at left most digit if user presses "▲" key decimal point will disappear. Press "P" key to enter. Now meter will display the measured values. For Measured Value > 9999, the LED for "K" (Kilo) will glow.

TEST RESULTS : Meter Serial No.

INPUT (5A)	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
INPUT (1A)	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
RESULT	UL	OK									

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4

USER MANUAL (V1.3)

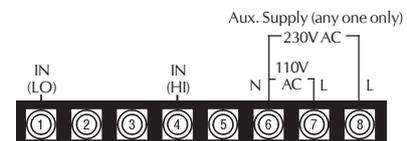
1

Specifications :

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● Display type	RED LED Super Bright Display
● Maximum Display	0-9999 counts (4 Digit)
● Overrange Indication	-OL-
● Under range Indication	-UL-
● Resolution	0.001 to 1 (depending on CTP)
● Accuracy	± 0.5% FSD
● Sampling Rate	2.5 Samples/Second
● Maximum Overload	2 times continuous
● Faceplate/Lens	Red Antiglare Faceplate with Annunciators
● Mounting Clamps	Sturdy, Derlin (Engineering plastic)
● VA Burden (Typical)	Auxiliary : < 1.5VA Input : < 0.5VA
● Frequency Response	45-65Hz
● Environmental conditions	0 to 55°C, <70% RH (Operation) -10 to 70°C, <70%RH (Storage)
● Dielectric strength	2.5 KV at 50Hz for 1 minute between Input, Auxiliary & Case
● Impulse withstand	3.5KV, 1.2/50 S.
● Case/Housing Material	Black ABS, Dimension as per DIN 43700
● Connectors	Terminal Block : Thermoplastic (UL 94V-0) With Tin Plated Brass Terminals
● Display Stability	Within ± 2 digits
● Display Digit Height	0.56" / 14.2mm
● Auxiliary Supply (Dual)	230V AC ±10% / 110V AC ±10% @50 Hz

2

Terminal Connection



Power ON the meter, meter will display measured readings.

Default Factory Setting :

A1 / A5 : A5 (5A Range)

CTP : 5

Programming Mode :

To configure the meter, Press "P" key, the meter will display "----". Enter the Password to configure the meter. Password is "4321". If it is not required to configure the meter press "P" key again, meter will start displaying measured reading.

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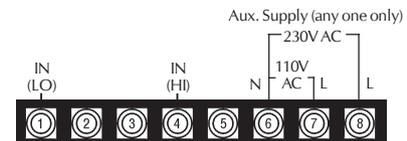


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● Under range Indication	-UL-
● Resolution	0.1 to 1 (depending on PTR)
● Accuracy	± 0.5% FSD
● Sampling Rate	2.5 Sampler/Second
● Maximum Overload	1.2 times continuous
● Faceplate/Lens	Red Antiglare Faceplate with Annunciators
● Mounting Clamps	Sturdy, Derlin (Engineering plastic)
● VA Burden (Typical)	Auxiliary : < 1.5VA Input : < 0.5VA
● Frequency Response	45-65Hz
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