

Current Meter M-705A / Voltage M-705V Manual

Product Specification
M-7 A V 500

Display range	Voltage meter
	005 : 50mV 05 : 500mV 5 : 5V 10 : 10V 500 : 500V
Measurement Category	Current meter
	50/5 : Range 50 Input 5A
	60/10 : " 60 " 10A
	100/5 : " 100 " 5A
Input Category	5/D : Range 5 Input: DC 5A
	100/0075 : " 100 " 75mA
	100/042 : " 100 " 4-20mA
	100/1.5 : " 100 " 1-5V
	V: Voltage A: Current (Ampere)
Dimension	A: AC D: DC F: AC/DC multiple
	7: 76(Length) * 34(depth)

*Power Spec Base : AC100~240V
Option : DC12, DC24V

Warning

This product was not manufactured as a safety device. The separate safety device should be attached before using it, if you want to use it with the equipment that may cause loss of lives, property damage, or critical damage on peripheral equipment.

Danger

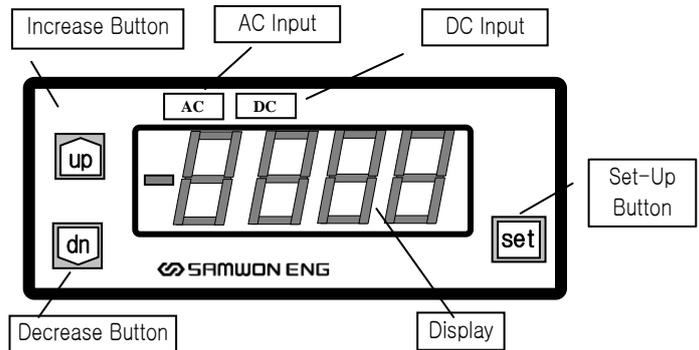
- ① Electric Shock : Please do not touch the AC terminal during applying electric current
- ② Make sure the input power switch off when checking the input power.

Caution

1. When you use it in the different way compare to the way that the manufacturer indicates, there might be accidents or loss of properties.
2. Please Prevent dust, water, grease, and wiring dregs from coming into the product. There is the risk for fire and bad influence on the product.
3. Please do not disassemble or rebuild the product. It will make the bad influence on the product.
4. Please connect properly checking out the polarity and usage of the terminal.
5. Please separate the product's wires from high-voltage wire, power cable, and motor cable to avoid the induced noise
6. Do not use in the places as below
 - a. Much dust, grease, humidity, and corrosive gas
 - b. High humidity, Freezing Area
 - c. Strong sun radiant heat
 - d. Vibration & Shock.
7. The power switch or the circuit breaker should be installed in order to cut the power supply to the product.
8. Please keep Input signal wire away from power supply circuit, power circuit, and load circuit to avoid noise.
9. Please do not use near to the machine making strong noise such as welding machine, high-frequency sewing machine, and high-capacity SCR controller.
10. Please switch off controller power during lightning and thunderbolt
11. The raidotelegraph can cause the trouble of controller. Please do not use it.

* Please keep the above list of caution, which can cause the trouble of the product.

1. Part Function & Name



Display Window	Display Current & Voltage Input Value	
AC Input Display	Light when input value is AC	
DC Input Display	Light when input value is DC	
Set-Up Button	set	Setting Value set-up/change
Increase Button	up	Setting Value increase
Decrease Button	dn	Setting Value decrease

2. Product Function

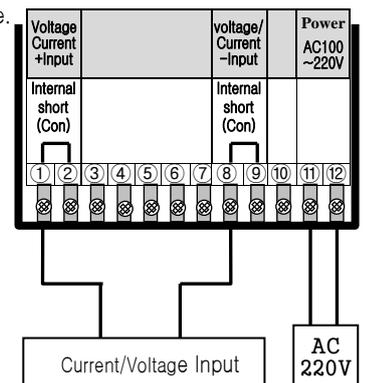
- ▶ AC/DC Input Selection Available
- ▶ AC/DC Input Lamp Display on Input selection value.
- ▶ DC +/- Input Available regardless of input polarity
- ▶ DC +/- Sign Display on input polarity
- ▶ Min/Max Value Display function of input value
- ▶ Display function of scale application.
- ▶ Locking function for installer.

3. Port Connection Method

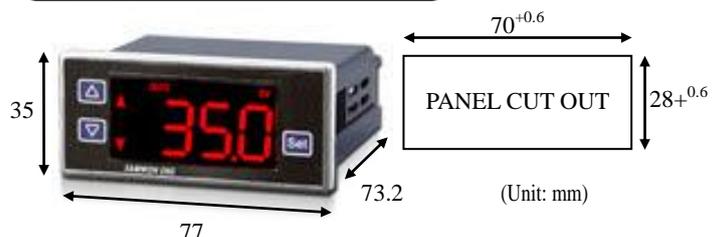
- ▶ Connect the ports as the right figure.

Please pay attention not to connect input line wrongly or not to input higher voltage & current than permitted range.

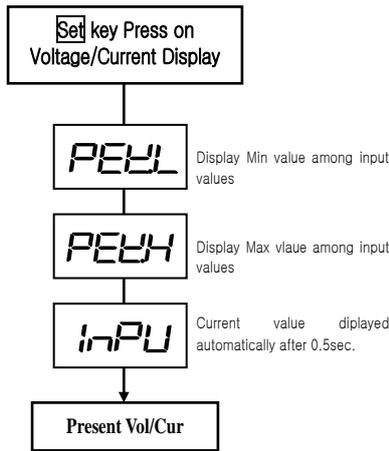
- ▶ Port 1 & 2 and 8 & 9 are internally disconnected (connected) respectively.



4. External & Panel Dimension

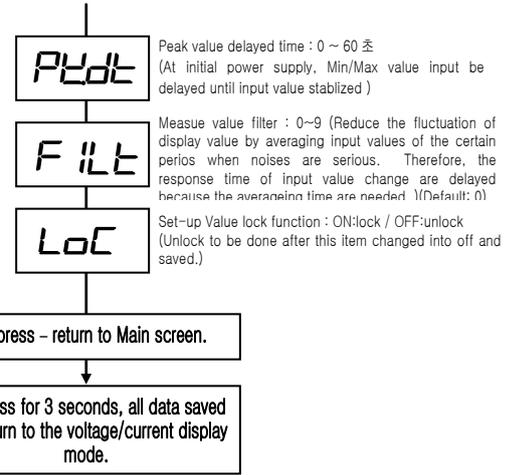
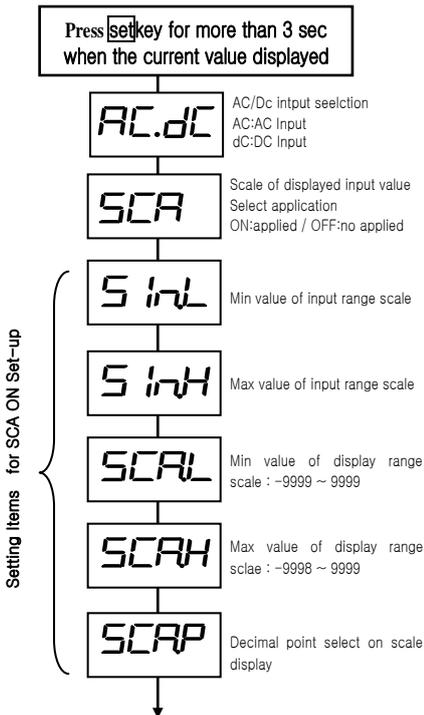


- ▶ Supply the power to the meter. Voltage/Current Value to be displayed.
- ▶ Compare & remember Min/Max of input after passing the set-up time on peak-time delayed time of factory default item.
- ▶ Min/Max value to be initialized when power supplied, AC/DC changed, and reset by user.
- ▶ Confirm Min/Max value by pressing Increase (up) or Decrease (dn) buttons of the relevant item.
- ▶ For initialization of Min/MAX value by users, wait for 3 sec until display value become 0 after pressing Set key with Increase (up) button together when Min/Max value is displayed.
- ▶ If there is no key input during Min/Max value displayed, the current values to return automatically after around 30 seconds.
- ▶ Select the below items appropriately.
(whenever press set key once, the next item will be displayed)



5. Factory Default

- ▶ Several Display value setting can be changed. Please change the below items appropriately. (Move to the next item when set key pressed once)
- ▶ Press set key for more than 3 seconds when the current value displayed.



6. Display & Setting Range of Each Model

Model	Input Range	Display Range	Min Value Scale Input Value (SInL)	Max Value Scale Input Value (SInH)
M-7FV500	AC 0V ~ 500V DC -500V ~ +500V	0.0~±500.0V	-500.0 ~ 499.9	-499.9 ~ 500.0
M-7FV50	AC 0V ~ 50V DC -50V ~ +50V	0.00~±50.00V	-50.00 ~ 49.99	-49.99 ~ 50.00
M-7FV5	AC 0V ~ 5V DC -5V ~ +5V	0.000~±5.000V	-5.000 ~ 4.999	-4.999 ~ 5.000
M-7FV05	AC 0V ~ 0.5V DC -0.5V ~ +0.5V	0.0~±500.0mV	-500.0 ~ 499.9	-499.9 ~ 500.0
M-7FV005	AC 0V ~ 50mV DC -50mV ~ +50mV	0.00~±50.00mV	-50.0 ~ 49.99	-49.99 ~ 50.00
M-7FA10/D	AC 0A ~ 10A DC -10A ~ +10A	0.00~±10.00A	-10.00 ~ 9.99	-9.99 ~ 10.00
M-7FA5,000/5	AC 0A ~ 5A DC -5A ~ +5A	0.000~±5.000A	-5.000 ~ 4.999	-4.999 ~ 5.000
M-7FA500/05	AC 0A ~ 500mA DC -500mA ~ +500mA	0.0~±500.0mA	-500.0 ~ 499.9	-499.9 ~ 500.0
M-7FA50/005	AC 0A ~ 50mA DC -50mA ~ +50mA	0.00~±50.00mA	-50.00 ~ 49.99	-49.99 ~ 50.00

* r.oVr(RANGE OVER) to be displayed at the over of input range
Please reduce meter voltage/current input value at that time.
There can be damage of internal components or fire.

7. Example of Scale Use

* Limit of resolution of scale display to be followed to the Meter internal limit of resolution that is approximately 2 times of Max display value.

- 1) Case of 1.000~5.000 displayed on DC 4~10mA input
 - ① Current Input DC ±50.00mA, select input range meter
 - ② Factory Mode SCA = ON
 - ③ Factory Mode SIn.L = 4.00
 - ④ Factory Mode SIn.H = 20.00
 - ⑤ Factory Mode SCA.L = 1000
 - ⑥ Factory Mode SCA.H = 5000
 - ⑦ Factory Mode SCA.P = 0.000

2) Case of 4.00~20.00 displayed on DC 1~5V input

- ① Voltage Input $\pm 5.000V$ Select Input range meter.
- ② Factory Mode SCA = ON
- ③ Factory Mode SIn.L = 1.000
- ④ Factory Mode SIn.H = 5.000
- ⑤ Factory Mode SCA.L = 400
- ⑥ Factory Mode SCA.H = 2000
- ⑦ Factory Mode SCA.P = 00.00

3) Case of 0.00~40.00 displayed on DC -200~200V input

- ① Voltage Input $\pm 500.0V$ Select input range meter.
- ② Factory Mode SCA = ON
- ③ Factory Mode SIn.L = -200.0
- ④ Factory Mode SIn.H = 200.0
- ⑤ Factory Mode SCA.L = 0
- ⑥ Factory Mode SCA.H = 4000
- ⑦ Factory Mode SCA.P = 00.00

8. Product Specification

Power Voltage	AC100~220V (50/60Hz Multi) $\pm 10\%$
Consumption Power	Approx. below 5VA
Measurement Input	AC/DC Voltage/Current
Max Permission Input	Each model Input range's 110%
Display	DC : F.S $\pm 0.1\%$ Rdg ± 1 DIGIT AC : F.S $\pm 0.3\%$ Rdg ± 1 DIGIT
AC Measurement Method	Average (AVG) measurement method
Function Setting Method	Digital Method by Increase & Decrease Key
Major Function	AC/DC Multi, DC Polarity display, Min/Max display, Range setting of input & display value
Environment Temperature	0°C ~ 50°C
Environment Humidity	Below 85% RH



본사/공장 : 경남 김해시 화목동 703-4 번지

TEL:055-321-3030 (代) FAX:055-321-3060

Homepage: <http://www.31eng.kr> E-Mail : 31eng@paran.com