

Ordering information

S C M 3 - A 0.5 3 - Ru 6

Measuring input

NO	DC input (F ' S)	AC input (F ' S)	
1	199,9 V	199,9 mA	
2	1,999 V	1,999 A	
3	19,99 V	19,99 V	
4	199,9 V	50mVDC Output use shunt	
5	300 V		1(2)A
6	500V		5(6)A
		3P, 3*5(6) A	It must be use C.T (Max. 6A)

Ru	Under current Relay - 1A.250V
Ro	Over current Relay - 1A.250V

3	3 ½ digit - Average value - RMS value
4	4 ½ digit - Average value - RMS value

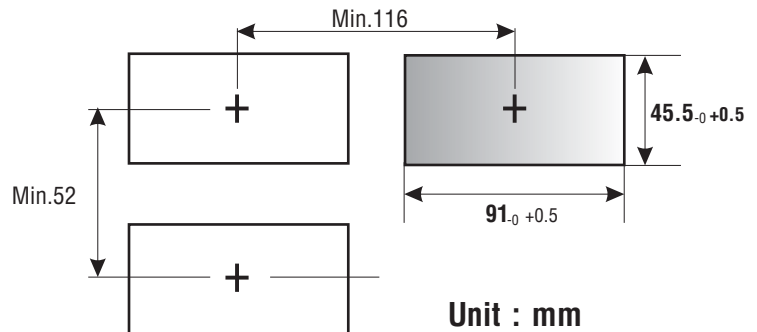
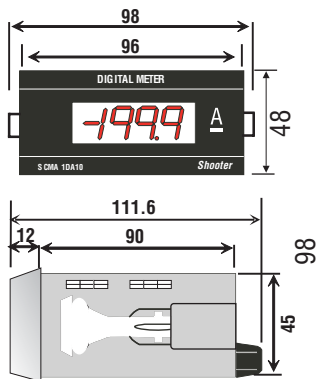
0.5	Class 0.5
1	Class 1

DA	DC ampere
AA	AC ampere

1	1 Element
3	3 Element

M	Series Meter for DIN size W96 x H48mm
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Panel cut - out



■ **Features**

- Indicating 1999.
- AUTO ZERO and HOLD function.
- Available average measuring value for sine wave value/measuring value for root mean square for AC, DC ampere
- DIN size of W96 x H48.
- Diverse models of indicator, single preset, double preset.
- Available BCD output.

■ **Rating**

Model	SCM1DV05 -4-X	SCM -1DA-X-X	SCM -1DA-05-3 Ru 4 SCM -1DA-01-3 Ro 5	SCM -1AA-05-3-Ro -6 SCM -1AA-01-3-Ru -6	SCM -3AA-05 SCM -3AA-01
Measuring	DC voltage	DC, AC voltage			
Power supply	5VDC	* 5VDC * 24 to 70VDC 100 to 240VAC/VDC 50/60Hz	* 24 to 70VDC * 100 to 240VAC/VDC 50/60Hz 100/220 VAC 50/60Hz		
Operating voltage range	90 to 110% rated voltage				
Power consumption	DC : 2W	DC : 2W, AC : 4VA		DC : 2W, AC : 5VA	
Display method	7 Segment LED Display				
Indicating accuracy	F.S ±0,2% rdg. ±1digit	DC : F ± 0,2% rdg. ± 1digit AC : F ± 0,5% rdg. ± 1digit			
Sampling control	300mS				
Operating method	Dual slope A/D conversion				
Response time	2sec (0 to Max)				
Max, input	150% per each range, but 450VAC is 120%, 6 A.AC				
Sampling time	2,5 Operation/sec				
Power consumption	—————			250VAC 1A 1C	250VAC 1A 1C x 2

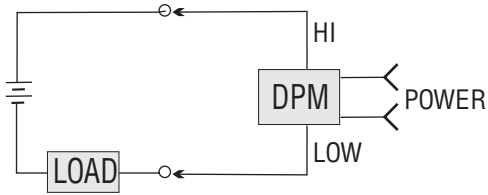
(*) mark in power spec. Is option.

■ **Characteristic**

Insulation Resistance	100M Min. (At 500VDC) between power input terminal and control output terminal				
Impulse voltage	2000VAC 50/60Hz for 1 minute between power input terminal and control output terminal				
Noise	The square wave noise (pulse width :1 μs) by the noise simulator±300V	The square wave noise (pulse width 1μs) by the noise simulator ± 1KV			
Vibration	Mechanical durability	0,75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1hour			
	Malfunction durability	0,5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes			
Shock	Mechanical durability	300m/S ² (30G) in X, Y, Z directions for 3 times			
	Malfunction durability	100m/S ² (10G) in X, Y, Z directions for 3 times			
Ambient operting temperature	0 to 50°C	°			
Ambient storage temperature	-25 to 65°C (at non-freezing status)				
Ambient humidity	35 to 85% RH				
Weight	MS : About 52g	SCM1XX : About 170g	SCM1AA1-3-Ru-5 :About 343g	SCM-3AA05 : About 434g	

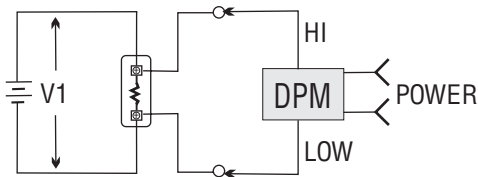
■ Connection

● How to measure DC current



(When measuring current is lower than DC 2A)

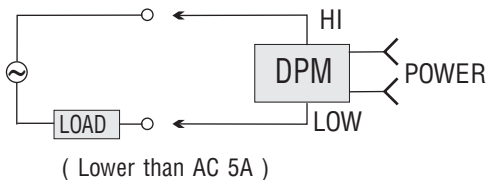
*F.S measuring current is DC 200mA



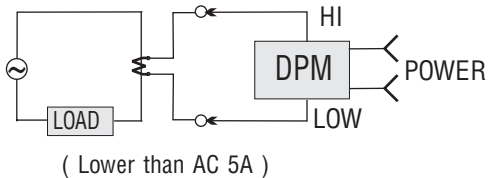
(When measuring current is higher than DC 2A)

* When measuring current is higher than DC 2A be sure to connect the shunt.

● How to measure AC current

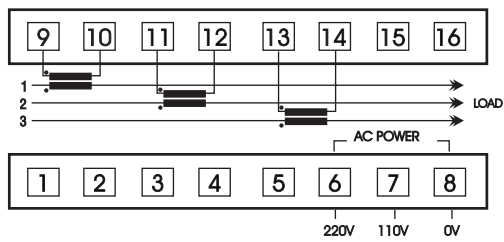


(Lower than AC 5A)

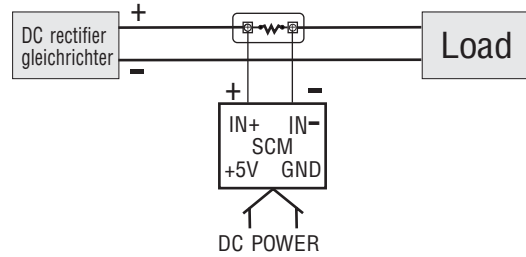


(Lower than AC 5A)

■ How to measure AC current transformer 3P.



1) Block diagram



* When measuring current is higher than DC 200 mA.

Be sure to connect the shunt

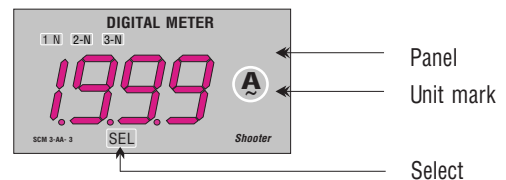
* It not is insulated the power terminal and input terminal

2) Connection terminals

Terminals No.	Items	Contents
1 2	+5V GND	The power terminal (5VDC)
3	HOLD	Note connection diagram
4 5 6 7	D.P1 D.P2 D.P3 D.P COM	10^3 10^2 10^1 } Selection terminals of decimal point. - Common terminal of decimal point. $10^3 10^2 10^1$ 1.9.9.9
8 9 10	IN- NC IN+	Measuring signal input terminal

3) Unit mark

There is no unit mark in the SCM meter, please attach the unit mark on the panel board.



4) Caution

- Take care of insulation because it is not insulated between signal input line and power line.
- Be sure to supply the power after checking polarity of the power.
- If polarity of the power is connected in the opposite direction, the inner circuit can be damaged.
- Take care of direction of the connector in order not to mount it in the opposite direction.
- If the display indicate 1 or -1, be sure to turn off the power and check external connection, in this case the input signal is higher than full scale range or the power is lower than the rated voltage.