

§ Wide Angle *METER* § L Series

DC AMMETER / VOLTMETER / RECEIVING INDICATOR (MOVING COIL TYPE) / **ML XL**

1. **DC AMMETER**

Maximum Scale Value	Approx. Internal Resistance or Voltage Drop		Attachment
	ML-110C, 80C	ML-65C	
200 μ A	1.6k Ω	1.6k Ω	-
1mA	185 Ω	185 Ω	
5mA	10 Ω	12 Ω	
20mA	2.5 Ω	3 Ω	
50mA~30A	50mV	60mV	-
30A~10kA	60mV		Shunt

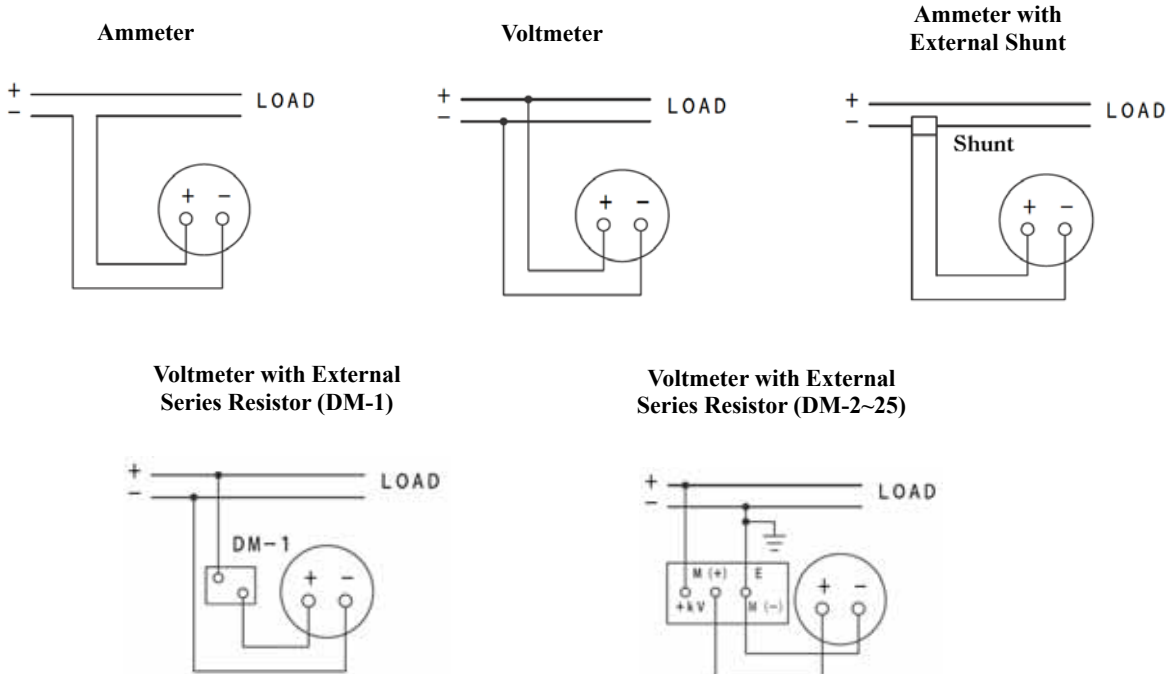
- ▶ Any max. scale value exceeding 30A is dealt by a 60mV meter with an external shunt.
- ▶ A meter with a built-in adjustable resistor for external resistance correction can be manufactured.
- ▶ Shunt lead wire is not attached. The standard of lead wire resistance is 0.07 Ω (1.25mm²)

2. **DC VOLTMETER**

Maximum Scale Value	Approx. Consumption Current		Attachment
	ML-110C, 80C	ML-65C	
50mV~900mV	2mA	2mA	-
1V~600V	1mA	1mA	-
750V/1mA~25kV/1mA	1mA	1mA	Series resistor

- ▶ Any maximum scale value exceeding 600V is dealt by a 1mA meter with series resistor.

CONNECTION DIAGRAM



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3. DC RECEIVING INDICATOR

A receiving indicator is an ammeter or a voltmeter that is used to receive electrical signal from a detector or a transmitter, and then measures and indicates various physical quantities, power, power factor, and frequency and so on.

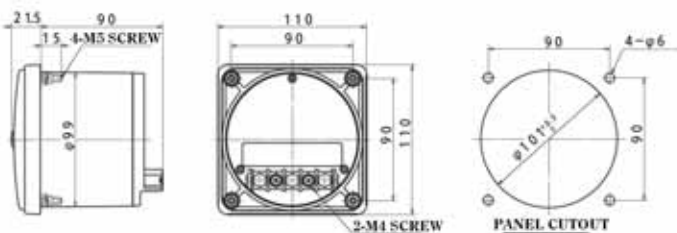
Volume Of Electrical Input	Approx. Internal Resistance		Volume Of Electrical Input	Consumption Current	
	XL-110C, XL- 80C	XL-65C		XL-110C, XL- 80C	XL-65C
200 μ A	1.6k Ω	1.6k Ω	1V	1mA	2mA
500 μ A	630 Ω	630 Ω	2V		2mA
1mA	185 Ω	185 Ω	1~5V		1mA
2mA	18 Ω	18 Ω	5V		1mA
5mA	10 Ω	12 Ω	10V		1mA
10mA	5 Ω	6 Ω	20V		1mA
20mA	2.5 Ω	3 Ω	50V		*
4~20mA	6 Ω	6 Ω	?		1mA
10~50mA	12.5 Ω	1.5 Ω	300V		1mA

► For a receiving indicator that receives biased signal such as input DC1~5V, DC4~20mA, zero point adjustment is required when receiving such biased input.

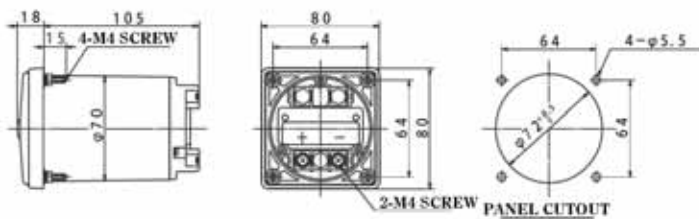
* Consumption current of VR built-in measuring is 2mA(XL-65C is 1mA)

DIMENSIONS

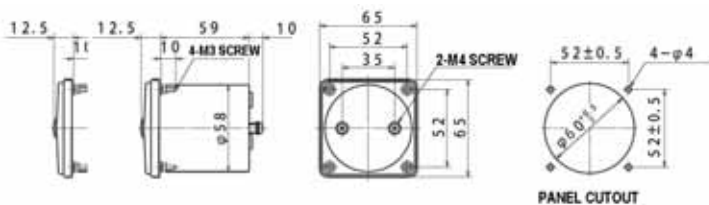
L-110C



L-80C



L-65C



CONNECTION DIAGRAM

DC Receiving Indicator



● A meter with bidirectionally swinging pointer can be manufactured.