

M4Y/M4W/M5W/M4M Series

■ Features

- Max. display: 19999 (M5W), 1999 (Others)
- AUTO ZERO function or HOLD function (Except M5W)
- RMS/AVG value selection function (AC Voltage)
- 7Segment LED Display
- Case size by DIN specification
- Indicating type only, Single preset output type, Double preset output type



⚠ Please read "Caution for your safety" in operation manual before using.

■ Ordering information

M **4** **W** - **A** **V** - **1**

NO	M4Y / M4W / M4M		M5W	
	DC INPUT (F · S)	AC INPUT (F · S)	DC INPUT (F · S)	AC INPUT (F · S)
1	199.9mV	199.9mV	199.99mV	199.99mV
2	1.999V	1.999V	1.9999V	1.9999V
3	19.99V	19.99V	19.999V	19.999V
4	199.9V	199.9V	199.99V	199.99V
5	300V	—	300.0V	—
6	—	400V	—	400.0V
XX	Option			
	AVG value			
R	RMS value			
V	Volt Meter			
A	Ampere Meter			
	Indication type			
1P	Single setting			
2P	Double setting			
Y	DIN Size W72 × H36mm			
W	DIN Size W96 × H48mm			
M	DIN Size W72 × H72mm			
4	3½digit			
5	4½digit			
M	Meter			

Note1) Measuring input □

Note2) []

Note3) []

Note4) []

Note1) Measuring input and display are 1:1.

Note2) Available input can be direct connection if under 300VDC, 400VAC.

Note3) RMS only applies to AC measuring type. Do not enter "R" with DC model.

Note4) M4Y, M5W are an indication type.

Volt Meter

■ Specifications

Model	M4Y-DV-□ M4Y-AV□-□ M5W-DV-□ M5W-AV-□	M4W-DV-□ M4W-AV□-□ M4M-DV-□ M4M-AV□-□	M4W1P-DV-□ M4W1P-AV□-□ M4M1P-DV-□ M4M1P-AV□-□	M4W2P-DV-□ M4W2P-AV□-□ M4M2P-DV-□ M4M2P-AV□-□
Measurement function	DC, AC voltage			
Max. allowable input	150% for each input specification (At AC400V:120%)			
Power supply	★5VDC (Except M5W) ★24-70VDC 100-240VAC 50/60Hz	★24-70VDC ★100-240VAC 50/60Hz 110/220VAC 50/60Hz		
Allowable voltage range	90 ~ 110% of rated voltage			
Power consumption	DC : 2W, AC : 4VA		DC : 2W, AC : 5VA	
Display method	7Segment LED Display			
Character height	14.1mm		M4W:10.16mm, M4M:10mm	
Display accuracy	DC : F · S ±0.2% rdg ±1 digit AC : F · S ±0.5% rdg ±1 digit			
Sampling cycle	300ms			
A/D conversion method	Dual slope integral method			
Response time	2sec.(0 to Max.)			
Setting time	2.5 times/sec			
Contact capacity	—————		Relay output : 250VAC 3A 1c	Relay output : 250VAC 3A 1c×2
Insulation resistance	Min. 100MΩ (at 500VDC)			
Dielectric strength	2000VAC 50/60Hz for 1 minute			
Noise strength	±1kV the square wave noise (pulse width:1μs) by the noise simulator			
Vibration	Mechanical	0.75mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 1 hour		
	Malfunction	0.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 10 minutes		
Shock	Mechanical	300m/s ² (30G) in X, Y, Z directions for 3 times		
	Malfunction	100m/s ² (10G) in X, Y, Z directions for 3 times		
Relay life cycle	Mechanical	—————		
	Malfunction	Min. 1,000,000 (250VAC 3A resistive load)		
Ambient temperature	-10 ~ +50℃ (at non-freezing status)			
Storage temperature	-25 ~ +65℃ (at non-freezing status)			
Ambient humidity	35~85%RH			
Weight	M4Y:Approx. 170g M5W:Approx. 317g	M4W:Approx. 317g M4M:Approx. 401g	M4W-1P:Approx. 408g M4M-1P:Approx. 467g	M4W-2P:Approx. 424g M4M-2P:Approx. 496g

※ "★" (Power supply) is optional.

(A)
Counter

(B)
Timer

(C)
Temp.
controller

(D)
Power
controller

(E)
Panel
meter

(F)
Tacho/
Speed/
Pulse
meter

(G)
Display
unit

(H)
Sensor
controller

(I)
Proximity
sensor

(J)
Photo
electric
sensor

(K)
Pressure
sensor

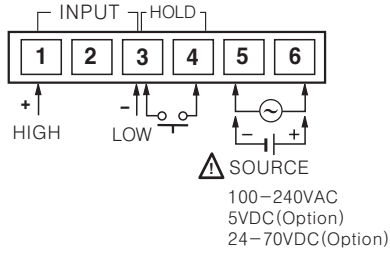
(L)
Rotary
encoder

(M)
5-Phase
stepping
motor &
Driver &
Controller

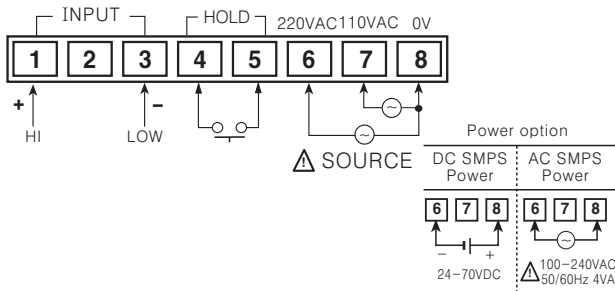
M4Y/M4W/M5W/M4M Series

Connections

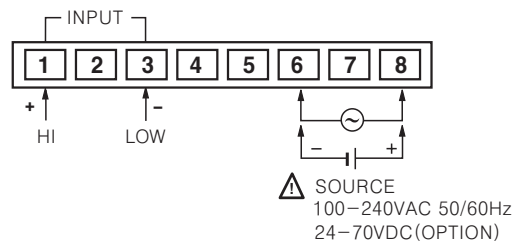
●M4Y



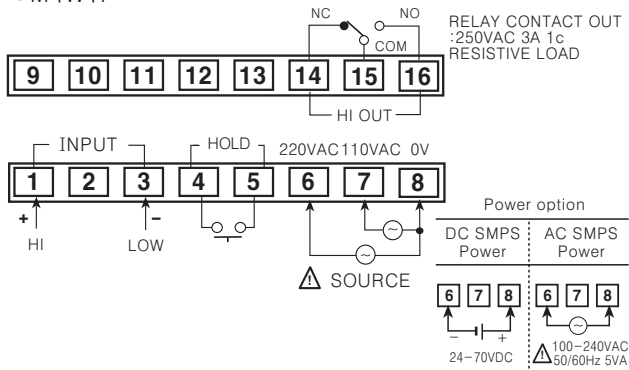
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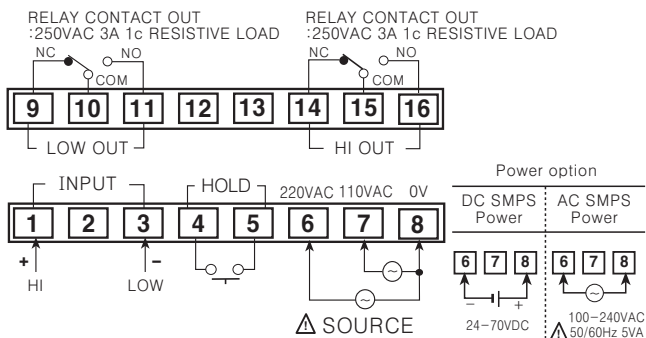
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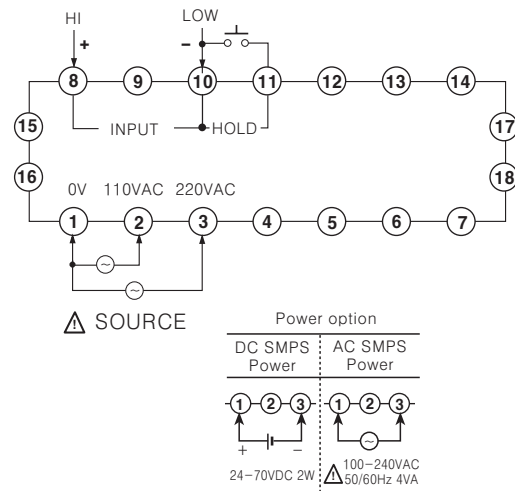
●M4W1P



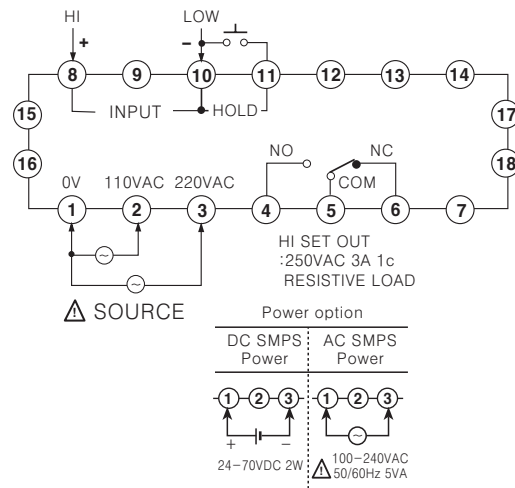
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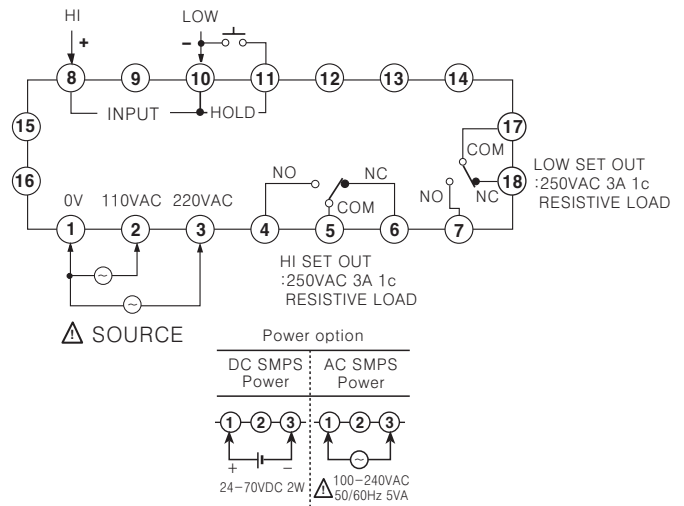
●M4M



●M4M1P



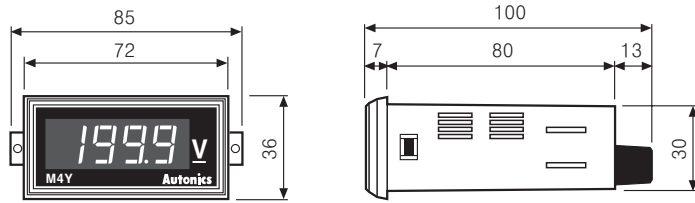
●M4M2P



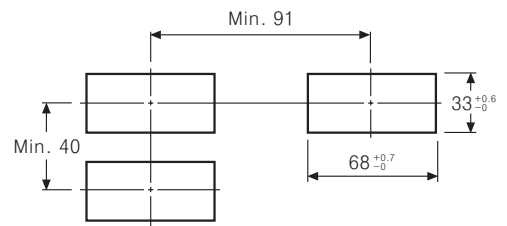
Volt Meter

Dimensions

●M4Y

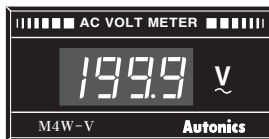


●Panel cut-out



Unit:mm

●M4W



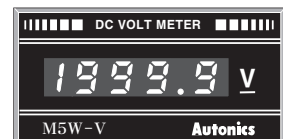
●M4W1P



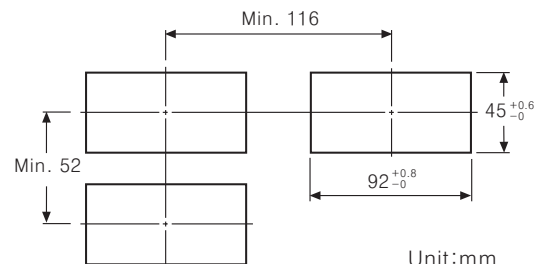
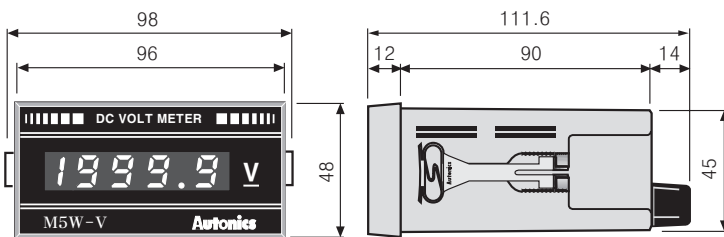
●M4W2P



●M5W

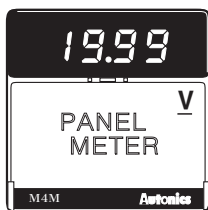


●Panel cut-out

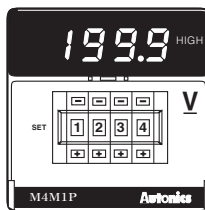


Unit:mm

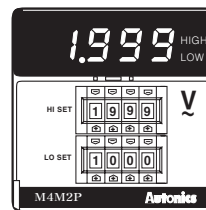
●M4M



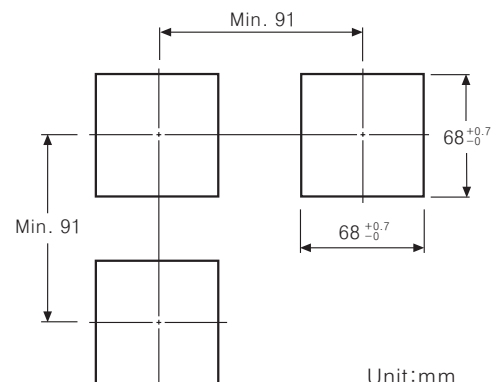
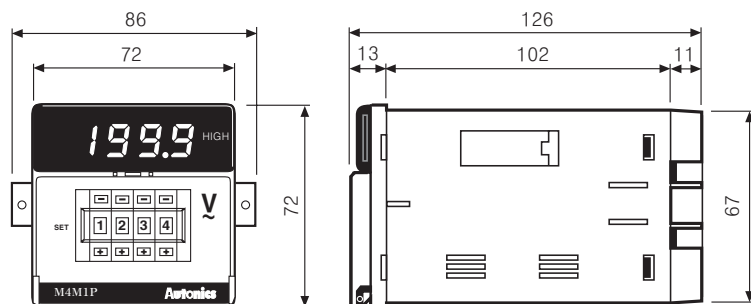
●M4M1P



●M4M2P



●Panel cut-out



Unit:mm

(A)
Counter

(B)
Timer

(C)
Temp.
controller

(D)
Power
controller

(E)
Panel
meter

(F)
Tacho/
Speed/
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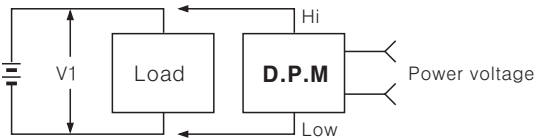
(L)
Rotary
encoder

(M)
5-Phase
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motor &
Driver &
Controller

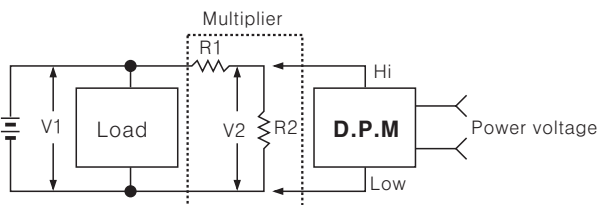
M4Y/M4W/M5W/M4M Series

■ The application of connections

◎ Measuring DC voltage



(Fig. 1) In case of lesser than DC300V of measurement voltage (V1)



(Fig. 2) Measuring higher than 300VDC of measurement voltage

※ When measuring voltage is higher than 300VDC, please select R1 and R2 with multiplying resistance on the external to make V2 less than max. measurement voltage.

$$V2 = \frac{R2}{R1+R2} \times V1 \quad R1 > R2$$

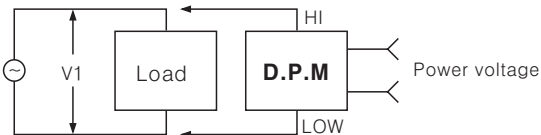
Ex) Ordering D.P.M for measuring 1000VDC

As above Fig. 2, select the R1 value to make 300VDC on R2.

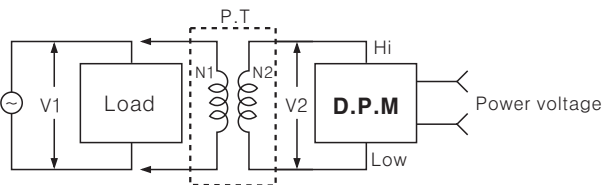
(Generally R1 value will be higher than R2 value.)

Order the D.P.M indicating 1000V for 300VDC.

◎ Measuring AC voltage



(Fig. 3) Measuring lower than 400VAC of measurement voltage (V1)



(Fig. 4) Measuring higher than 400VAC of measurement voltage (V1)

※ When measuring voltage is higher than 400VAC, please use the P.T on the external. (V2 voltage must be lower than max. measurement voltage)

$$V2 = \frac{N2}{N1} \times V1$$

Ex) Ordering D.P.M for measuring 1000VAC

Select the P.T having 1000VAC of 1st part voltage and 220VAC of 2nd part voltage and order the D.P.M indicating 1000V for 220VAC.

■ Proper usage

- Before you buy or use the Panel Meter, please read this catalog. The product, which is produced by customer's requirement, cannot be exchanged or refunded.
- If it displays arbitrary number even though the power is ON, please remove the input signal and check whether it displays "0000" after short the measurement terminal.
(Checking Auto Zero function)
If it does not display "0000", please connect to our A/S center.
Note) M5W Series does not have Auto Zero function.
- If it indicates 1999 or -1999 during input signal is ON, please turn OFF the power and check the connection condition.
It is because the input signal is too low or high.
Note) M5W Series indicates "19999" or "-19999".
- The specification of measurement input, which is indicated in model ordering, is a standard specification, 1:1 of measurement input and processing value. When it is an optional specification of AC voltmeter, please mark the specification of P.T after select a model.
※ Our company does not sell a P.T, so please buy it individually.
- The D.P.M for measuring AC voltage has both AVG type and RMS type separately.
Because it is produced with AVG type, please mark the model name accurately.
Ex) In case of M4Y, M4W, M4M Series (Include setting type)
The model of RMS type: M4W-AVR-6
The model of AVG type: M4W-AV-6
※ The specification will be set by sign "R".
※ M5W Series has RMS type only, and it is not indicated "R" on the model name.
- In case of D.P.M for measuring AC voltage, please check if it is AVG type or RMS type when comparison measuring with other company's products.