

NEW TYPE MGT SERIES PANEL METER



AC AMMETERS

Model: MGT-80 MGT-60 MGT-50 MGT-680 MGT-780 MGT-100 MGT-560 MGT-670

Accuracy: Class 1.5

Specification: 0.1A 0.5A 1A 3A 5A 7.5A 10A 15A 20A 25A 30A 40A 50A 60A.

For 10A-10KA, use external current transformer with secondary current 5A connected directly with current from 20A to 60A, the class is 2.5 .

Changeable scale: The dial plate with different scale, which is at the same division and internal value, can be changeable.

AC VOLTMETERS

Model: MGT-80 MGT-60 MGT-50 MGT-680 MGT-780 MGT-100 MGT-560 MGT-670

Accuracy: Class 1.5

Specification: 30V 50V 75V 100V 120V 150V 250V 400V 450V 500V 600V

For 450V-450KV, meters can potential transformer with secondary voltage 100V.

Heat resistance: case of non-combustible plastic material.

DC VOLTMETERS

Model: MGT-80 MGT-60 MGT-50 MGT-680 MGT-780 MGT-100 MGT-560 MGT-670

Accuracy: Class 1.5

Specification: 20V 30V 50V 100V 150V 200V 250V 300V 450V 500V 600V can be connected directly.

Measuring ranges over 450V with external resistor(rated current 5mA).

Heat resistance: case of non-combustible plastic material.

DC AMMETERS

Model: MGT-80 MGT-60 MGT-50 MGT-680 MGT-780 MGT-100 MGT-560 MGT-670

Accuracy: Class 1.5

Specification: 100 μ A 1mA 3mA 5mA 10mA 20mA 30mA 50mA 100mA 150mA 200mA 250mA 300mA 500mA 1A 3A 5A 7.5A 10A 20A 30A 40A 60A

For 10A-10KA, use external 75mV 60mV 45mV shunt.

The accuracy of the direct reading meter from 20A to 60A is class 2.5 .

Changeable scale: The dial plate with different scale, which is at the same division and internal value, can be changeable.

FREQUENCY METERS

Model: MGT-80 MGT-60 MGT-50 MGT-680 MGT-780 MGT-100 MGT-560 MGT-670

Accuracy: Class 1.0

Specification:

Voltmeter: 100V 220V 380V 440V

Frequency: 45-55Hz 45-65Hz 54-66Hz 350-450Hz 450-550Hz 550-650Hz

Heat resistance: case of non-combustible plastic material.

POWER FACTOR METER COS Φ

Model: MGT-80 MGT-60 MGT-50 MGT-680 MGT-780 MGT-100 MGT-560 MGT-670

Accuracy: Class 2.5

Specification: 100V 220V 380V 440V current: 5A

Three phase: 100V 220V 380V 440V current: 5A

Specification: 0.5cap-1-0.5ind 0.3cap-1-0.7ind 0.4cap-1-0.4ind 0.7cap-1-0.2ind

Frequency: 50Hz or 60Hz

Heat resistance: case of non-combustible plastic material.

With external converter, which size is 48mm \times 48mm



DIGITAL AC AMMETER

Function: Measure AC current

Model: MG-D96A-AC, MG-D72A-AC, MG-D48A-AC

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: $0.5\% \pm 1$ digit
3. Auxiliary power: AC $110V \pm 10\%$ 50/60Hz AC $220V \pm 10\%$ 50/60Hz
4. Input signal: AC current
5. Measuring range: 0-20A AC, For the current over 20A can use the AC current transformer.
6. Consumption: $< 3.2VA$
7. Max Signal Consumption: $< 0.3VA$
8. Operating Environment: temperature $-10^{\circ}C \sim +50^{\circ}C$ humidity: $\leq 85\%$
9. Storage Environment: temperature $-30^{\circ}C \sim +60^{\circ}C$ humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.

DIGITAL AC VOLTMETER

Function: Measure AC Voltage

Model: MG-D96V-AC, MG-D72V-AC, MG-D48V-AC

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: $0.5\% \pm 1$ digit
3. Auxiliary power: AC $110V \pm 10\%$ 50/60Hz AC $220V \pm 10\%$ 50/60Hz
4. Input signal: AC Voltage
5. Measuring range: 0-600V AC, For the Voltage over 600V can use the potential transformer.
6. Consumption: $< 3.2VA$
7. Max Signal Consumption: $< 0.3VA$
8. Operating Environment: temperature $-10^{\circ}C \sim +50^{\circ}C$ humidity: $\leq 85\%$
9. Storage Environment: temperature $-30^{\circ}C \sim +60^{\circ}C$ humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.



DIGITAL DC AMMETER

Model: MG-D96A-DC, MG-D72A-DC, MG-D48A-DC

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: $0.5\% \pm 1$ digit
3. Auxiliary power: AC $110V \pm 10\%$ 50/60Hz AC $220V \pm 10\%$ 50/60Hz
4. Input signal: DC current
5. Measuring range: 0-20A DC, For the current over 20V can use the external shunt.
6. Consumption: $< 3.2VA$
7. Max Signal Consumption: $< 0.3VA$
8. Operating Environment: temperature $-10^{\circ}C \sim +50^{\circ}C$ humidity: $\leq 85\%$
9. Storage Environment: temperature $-30^{\circ}C \sim +60^{\circ}C$ humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.



DIGITAL DC VOLTMETER

Model: MG-D96V-DC, MG-D72V-DC, MG-D48V-DC

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: $0.5\% \pm 1$ digit
3. Auxiliary power: AC $110V \pm 10\%$ 50/60Hz AC $220V \pm 10\%$ 50/60Hz
4. Input signal: AC Voltage
5. Measuring range: 0-600V DC or according to your own requirement.
6. Consumption: $< 3.2VA$
7. Max Signal Consumption: $< 0.3VA$
8. Operating Environment: temperature $-10^{\circ}C \sim +50^{\circ}C$ humidity: $\leq 85\%$
9. Storage Environment: temperature $-30^{\circ}C \sim +60^{\circ}C$ humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.



DIGITAL FREQUENCY METER

Model: MG-D96F, MG-D72F

Feature:

1. Display: 4 digital. LED display (red or green)
2. Accuracy: $0.2\% \pm 1$ digit
3. Auxiliary power: AC 110V $\pm 10\%$ 50/60Hz AC 220V $\pm 10\%$ 50/60Hz
4. Input signal: AC Voltage, rated signal value: 0-600V (admissible input Voltage error 80%, +100%)
5. Measuring range: 0-1M Hz
6. Consumption: <3.2VA
7. Max Signal Consumption: <0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: $\leq 85\%$
9. Storage Environment: temperature -30°C ~ +60°C humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.



DIGITAL POWER FACTOR METER COS Φ

Single Phase Model: MG-D96PF1, MG-D72PF1

Three Phase Model: MG-D96PF3, MG-D72PF3

Feature:

1. Display: 4 digital. LED display (red or green)
2. Accuracy: $0.5\% \pm 3$ digit
3. Auxiliary power: AC 110V $\pm 10\%$ 50/60Hz AC 220V $\pm 10\%$ 50/60Hz
4. Input signal: Voltage 100V 200V 380V or according to the requirement current: 0-1A or 0-5A
5. Measuring range: 0-1.00 (C or L)
6. Consumption: <3.2VA
7. Max Signal Consumption: <0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: $\leq 85\%$
9. Storage Environment: temperature -30°C ~ +60°C humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.



DIGITAL POWER METER

Model: MG-D96W(Var), MG-D72W(Var)

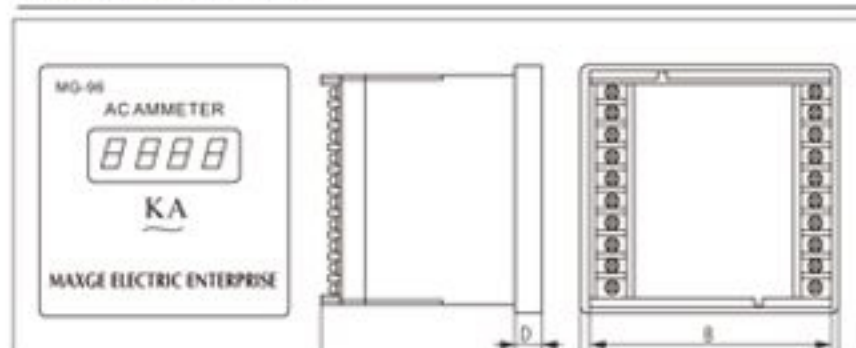
Function: measure the single phase Wattmeter, single phase Varmeter, 3P3W wattmeter, 3P3W Varmeter, 3P4W Wattmeter or 3P4W Varmeter.

Feature:

1. Display: 4 1/2 digital. LED display (red or green)
2. Accuracy: $1.0\% \pm 3$ digit
3. Auxiliary power: AC 110V $\pm 10\%$ 50/60Hz AC 220V $\pm 10\%$ 50/60Hz
4. Input signal: Voltage 100V 200V 380V or according to the requirement current: 0-5A
5. Measuring range: all ranges
6. Consumption: <3.2VA
7. Max Signal Consumption: <0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: $\leq 85\%$
9. Storage Environment: temperature -30°C ~ +60°C humidity: $\leq 70\%$
10. Heat resistance: case of non-combustible plastic material
11. Voltage Testing: over 2000V
12. Fastening: By means of nuts, absolutely safe, fast, robust, side-by-side.



OUTLINE DAWING:



SIZE OF RECTANGULAR TYPE METER

Model	Unit	A	B	C	D
	mm	96	92	75	10
MG-96	mm	3.74	3.62	2.95	0.39
	mm	72	58	75	9
MG-72	mm	2.83	2.68	2.95	0.35
	mm	48	44	110	8
MG-48	mm	1.90	1.77	4.22	0.31



DIGITAL AC AMMETER

Model: MG-D3A AC

Size: 96×48

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: 0.5% ± 1 DIFIT
3. Auxiliary power: AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
4. Input signal: AC current
5. Measuring range: 0-10A AC, For the current over 10A can use the AC current transformer.
6. Consumption: < 1.8VA
7. Max Signal Consumption: < 0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: ≤ 85%
9. Storage Environment: temperature -30°C ~ +60°C humidity: ≤ 70%
10. Heat resistance: case of non-combustible plastic material according to UL94-V0.
11. Voltage Testing: over 2000V

DIGITAL AC AMMETER

Model: MG-D3V AC

Size: 96×48

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: 0.5% ± 1 DIFIT
3. Auxiliary power: AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
4. Input signal: AC Voltage
5. Measuring range: 0-600A AC, For the Voltage over 600A can use the AC potential transformer.
6. Consumption: < 1.8VA
7. Max Signal Consumption: < 0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: ≤ 85%
9. Storage Environment: temperature -30°C ~ +60°C humidity: ≤ 70%
10. Heat resistance: case of non-combustible plastic material according to UL94-V0.
11. Voltage Testing: over 2000V



DIGITAL DC AMMETER

Model: MG-D3A DC

Size: 96×48

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: 0.5% ± 1 DIFIT
3. Auxiliary power: AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
4. Input signal: DC current
5. Measuring range: 0-20A DC
6. Consumption: < 1.8VA
7. Max Signal Consumption: < 0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: ≤ 85%
9. Storage Environment: temperature -30°C ~ +60°C humidity: ≤ 70%
10. Heat resistance: case of non-combustible plastic material according to UL94-V0.
11. Voltage Testing: over 2000V



DIGITAL DC VOLTMETER

Model: MG-D3V DC

Size: 96×48

Feature:

1. Display: 3 1/2 digital. LED display (red or green)
2. Accuracy: 0.5% ± 1 DIFIT
3. Auxiliary power: AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
4. Input signal: AC voltage
5. Measuring range: 0-600V DC
6. Consumption: < 1.8VA
7. Max Signal Consumption: < 0.3VA
8. Operating Environment: temperature -10°C ~ +50°C humidity: ≤ 85%
9. Storage Environment: temperature -30°C ~ +60°C humidity: ≤ 70%
10. Heat resistance: case of non-combustible plastic material according to UL94-V0.
11. Voltage Testing: over 2000V



DIGITAL FREQUENCY METER(Hz)



Model: MG-D3F

Size:96×48

Feature:

- 1.Display: 4 digital. LED display(red or green)
- 2.Accuracy:0.2% ± 1 DIFIT
- 3.Auxiliary power:AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
- 4.Input signal: AC Voltage, rated signal value:0-600V(admissible input Voltage error 80%, +100%)
- 5.Measuring range: 0-1MHz
- 6.Consumption:<1.8VA
- 7.Max Signal Consumption:<0.3VA
- 8.Operating Environment: temperature-10℃~+50℃ humidity: ≤85%
- 9.Storage Environment: temperature-30℃~+60℃ humidity: ≤70%
- 10.Heat resistance: case of non-combustible plastic material according to UL94-V0.
- 11.Voltage Testing: over 2000V

DIGITAL POWER FACTOR METER COS Φ

Model: Single phase: MG-D3PF1

Three phase: MG-D3PF3

Size:96×48

Feature:

- 1.Display: 4 digital. LED display(red or green)
- 2.Accuracy:0.5% ± 1 DIFIT
- 3.Auxiliary power:AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
- 4.Input signal: Voltage 100V, 220V, 380V, or according to the requirment current:0-5A
- 5.Measuring range: all ranges
- 6.Consumption:<1.8VA
- 7.Max Signal Consumption:<0.3VA
- 8.Operating Environment: temperature-10℃~+50℃ humidity: ≤85%
- 9.Storage Environment: temperature-30℃~+60℃ humidity: ≤70%
- 10.Heat resistance: case of non-combustible plastic material according to UL94-V0.
- 11.Voltage Testing: over 2000V



DIGITAL POWER METER(KW)

Model: MG-D3W, MG-D3Var

Size:96×48

Funtion:measure the single phase Wattmeter, Varmeter, 3P3W wattmeter, 3P3W Varmeter, 3P4W Wattmeter or 3P4W Varmeter.

Feature:

- 1.Display: 3 1/2 digital. LED display(red or green)
- 2.Accuracy:1.0% ± 1 DIFIT
- 3.Auxiliary power:AC 110V ± 10% 50/60Hz AC 220V ± 10% 50/60Hz
- 4.Input signal: Voltage 100V, 220V, 380V or the requirement current:0-5A
- 5.Measuring range: all ranges
- 6.Consumption:<1.8VA
- 7.Max Signal Consumption:<0.3VA
- 8.Operating Environment: temperature-10℃~+50℃ humidity: ≤85%
- 9.Storage Environment: temperature-30℃~+60℃ humidity: ≤70%
- 10.Heat resistance: case of non-combustible plastic material according to UL94-V0.
- 11.Voltage Testing: over 2000V



OUTLINE DAWING:



SIZE OF RECTANGULAR TYPE METER

Model	Unit	A1 A2 Panel cut-out size	Number of Terminal
MG-96×48	mm	44×92	16
	mm	1.73×3.62	

DIGITAL PANEL METER

For correctly of this instrument, please read carefully this specification before operation.

Check the ratio CT value if match with ratio meter.

Keep properly this specification after reading.



1. Digit panel-type meter is a digital measurement instrument, which applying dual-integral method, consists of LSI and highreliable components, high-accuracy A/D conver circuit and high-brightness LED display, with feature such as advanced design, reasonable distribution of components, nice appearance and easy to install. It is mainly use as displaying meter for every kind of instuments.

2. Corretly connect the meter to power supply(AC220V) before using, clients also can select the meter with power supply other than AC220V(when supply by DC power, polarity must be correctly connected, otherwise, the meter will be destroyed).

3. AC or DC input voltage within measuring range(0-600V) could be measure and display directly. When the input voltage is more than 600V, the meter must match with constant mutual-inductor.

4. AC or DC input current within measuring range(0-10A) can be measure and display directly.

When the AC input current is more than 10A, the meter must match with constant mutual-inductor, when the DC input current is more than 10A, the meter must match with constant current-divide mutual-inductor, the display value will be error if the ratio of current-divider is not match with the meter.

5. Commercial frequency meter sample the AC voltage signal, the merer can display directly the frequency value when input voltage signal is between 30V-600V, and the frequency measuring range is from 10.0Hz to 2000Hz.

6. Single-phase or three-phase wattmeter and power-factor meter, please connect correctly according to the wiring diagram on the meter, check carefully the high(H) and low(L) label beside the voltage or current input terminal. The display value will be error if connect wrongly. The input voltage can be selectable with 100V, 220V or 380V, the input current should be between 0 to 5A, if the input current is more than 5A, the meter must match with constant current mutual-inductor, otherwise the display value should be error.

7. As for input sensor signal is between 4 to 20 mA or 0 to 10V, the meter can be made to order by clients for measuing and display temperature, rotate speed or pressure, the specification is cover by other copy.

8. Note:

(1). For best performance, the meter should be pre-heated 15 minutes before operation if it is not use for a long time.

(2). The meter should be used under condititon of:

Ambient temperature: 0-50°C, Relative humidity: $\leq 85\%$

(3). The calibration interval should be one year; the precision of calibrator should be superior to 0.1 Grade.

(4). The meter should prevent from shocking and impulsing, and should not use under conditon of heavy dust or high concentration chemical drug or gas. Please apply power supply filter or other anti-interference circuit when use the meter in environment of high magnetic field, high frequency or high voltage spark.

(5). The calibrating rheostat is use for calibrating the meter, non-professional should not calibrate or disassembly the meter, as well as no calibrator available.

