

FG series Industrial Frequency/Revolution Digital Meter User's Manual



Features:

- ⊙ Big LED display, easy to read
- ⊙ High measuring accuracy, stable performance
- ⊙ FG*-**10 is for measuring frequency, revolution
- ⊙ FG*-**10H is for measuring sine AC frequency
- ⊙ Prescale coefficient setting function

For your safety, please read following content carefully before you use the meter!

Safe Caution

※ Please read the manual carefully before you use the temperature controller.

※ Please comply with the below important points.

⚠ Warning An accident may happen if the operation does not comply with the instruction.

⚠ Notice An operation that does not comply with the instruction may lead to product damage.

※ The instruction of the symbol in the manual is as below.

⚠ An accident danger may happen in a special condition.

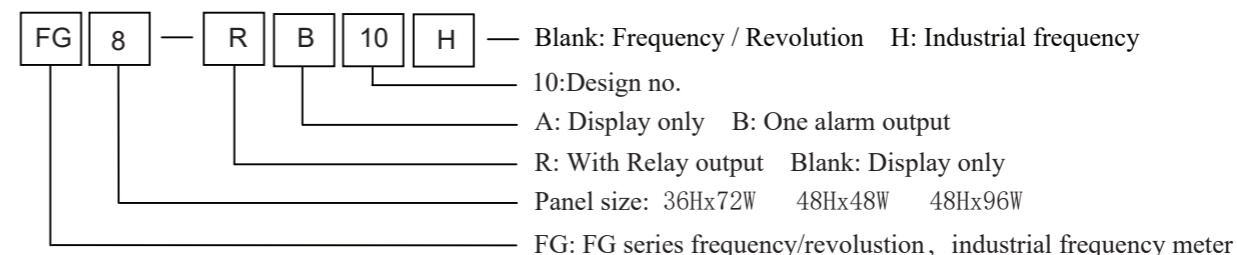
Warning

1. A safety protection equipment must be installed or please contact with us for the relative information if the product is used under the circumstance such as nuclear control, medical treatment equipment, automobile, train, airplane, aviation and equipment etc. Otherwise, it may cause serious loss, fire or person injury.
2. A panel must be installed, otherwise it may cause creepage (leakage).
3. Do not touch wire connectors when the power is on, otherwise you may get an electric shock.
4. Do not dismantle or modify the product. If you have to do so, please contact with us first. Otherwise it may cause electric shock and fire.
5. Please check the connection number while you connect the power supply wire or input signal, otherwise it may cause fire.

Caution

1. This product cannot be used outdoors. Otherwise the working life of the product will become shorter, or an electric shock accident may happen.
2. When you connect wire to the power input connectors or signal input connectors, the moment of the No.20 AWG (0.50 mm²) screw tweaked to the connector is 0.74n.m - 0.9n.m. Otherwise the connectors may be damaged or get fire.
3. Please comply with the rated specification. Otherwise it may cause electric shock or fire, and damage the product.
4. Do not use water or oil base cleaner to clean the product. Otherwise it may cause electric shock or fire and damage the product.
5. This product should be avoid working under the circumstance that is flammable, explosive, moist, under sunshine, heat radiation and vibration. Otherwise it may cause explosion.
6. In this unit it must not have dust or deposit, otherwise it may cause fire or mechanical malfunction.
7. Do not use gasoline, chemical solvent to clean the cover of the product because such solvent can damage it. Please use some soft cloth with water or alcohol to clean the plastic cover.

1.Code Illustration



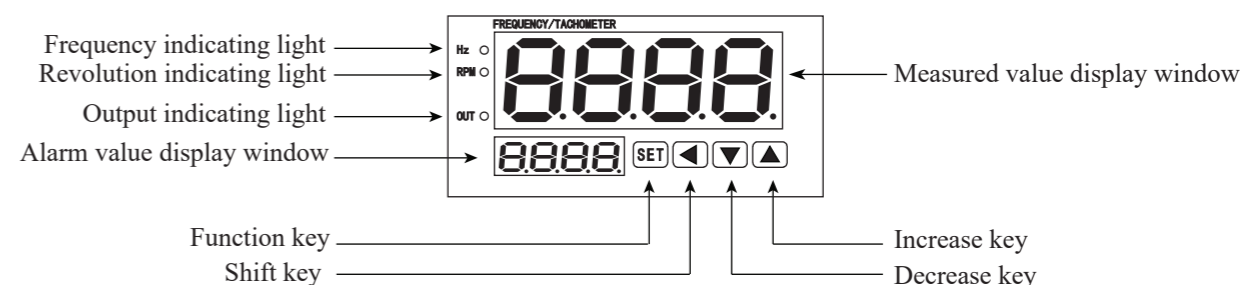
2.Model Indication

| Model | Size | Display | Function | Input signal level | Alarm |
|-----------|---------|------------------|-----------------------|--------------------|-----------|
| FG3-A10 | 36H*72W | Dual row 4 digit | Frequency, revolution | L:0~2Vdc H:5~30Vdc | No |
| FG3-RB10 | 36H*72W | Dual row 4 digit | Frequency, revolution | L:0~2Vdc H:5~30Vdc | One alarm |
| FG4-A10 | 48H*48W | Dual row 4 digit | Frequency, revolution | L:0~2Vdc H:5~30Vdc | No |
| FG4-RB10 | 48H*48W | Dual row 4 digit | Frequency, revolution | L:0~2Vdc H:5~30Vdc | One alarm |
| FG8-A10 | 48H*96W | Dual row 4 digit | Frequency, revolution | L:0~2Vdc H:5~30Vdc | No |
| FG8-RB10 | 48H*96W | Dual row 4 digit | Frequency, revolution | L:0~2Vdc H:5~30Vdc | One alarm |
| FG8-A10H | 48H*96W | Dual row 4 digit | Industrial frequency | 60~450VAC | No |
| FG8-RB10H | 48H*96W | Dual row 4 digit | Industrial frequency | 60~450VAC | One alarm |

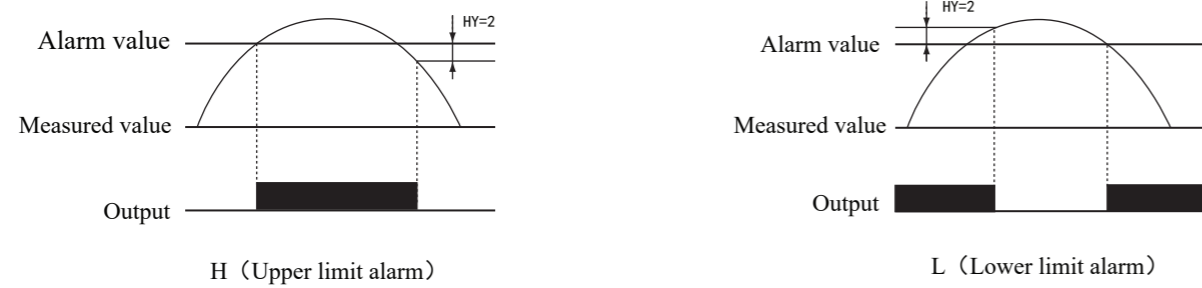
3.Technical Parameters

| Function | To measure frequency |
|-----------------------|--|
| Input mode | Frequency/Revolution: L:0~2V, H: 5~30VDC. Industrial Frequency: 60~450VAC |
| Measuring range | Frequency:0.1~5000Hz,Industrial Frequency:0.1~1000Hz,Revolution:6~9999RPM |
| Measuring accuracy | ±0.1% (25°C±5°C) |
| Power consumption | ≤3VA |
| Input impedance | FG3-**10、FG4-**10、FG8-**10≥10KΩ, FG8-**10H≥300KΩ |
| Decimal point | Frequency/Industrial Frequency: 00.00~0000 (Float decimal point), Revolution: No decimal point . |
| Responding speed | About 0.5S |
| Max.Display | 9999 |
| Operating humidity | ≤85% RH |
| Operating temperature | 0~50°C |
| Power supply | AC 220V or AC/DC 100~240V , 50/60Hz |
| Dimension | 36mm (H) × 72mm (W) × 70.5mm (L) ; 48mm (H) × 48mm (W) × 100mm (L) ; 48mm (H) × 96mm (W) × 110mm (L) ; |
| Weight | 350g |
| Insulation strength | AC 2000V 1min |
| Insulation impedance | DC 500V ≥100MΩ |

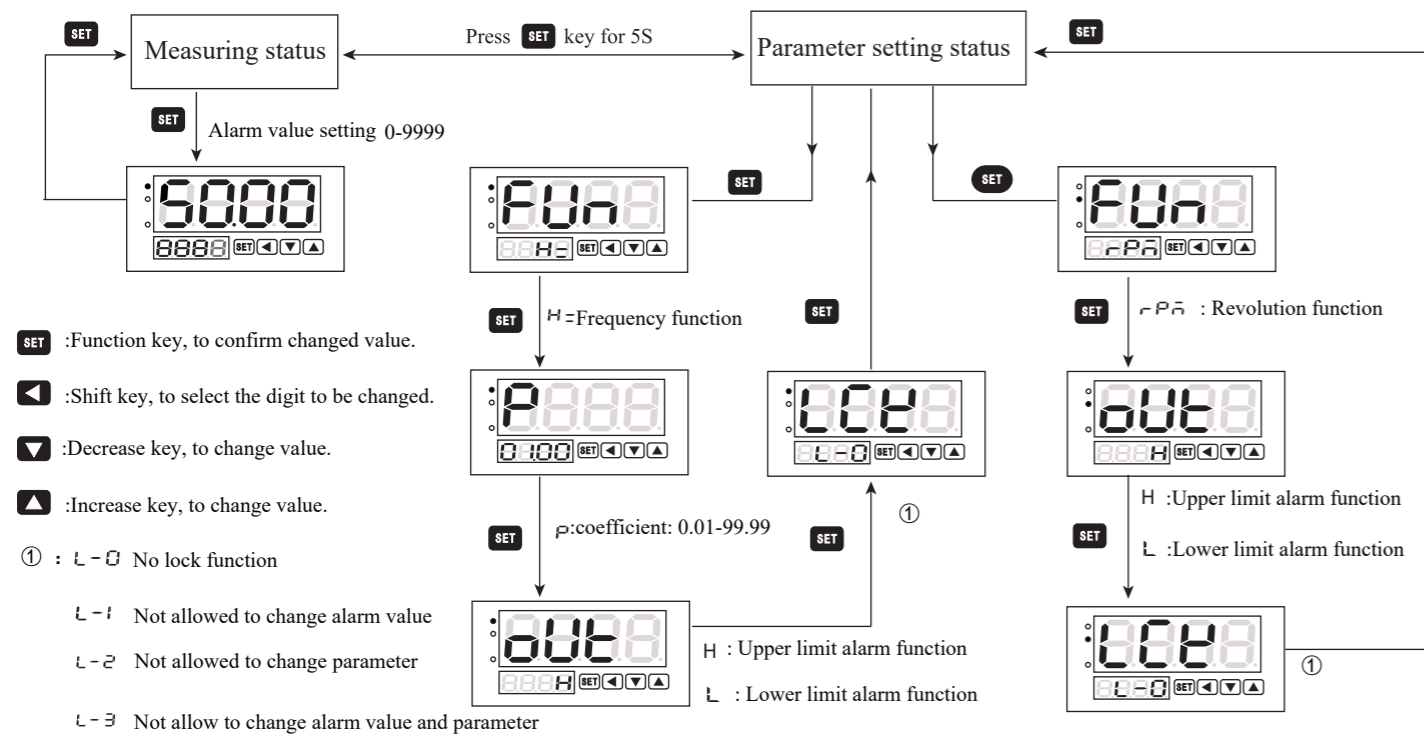
4.Panel Indication



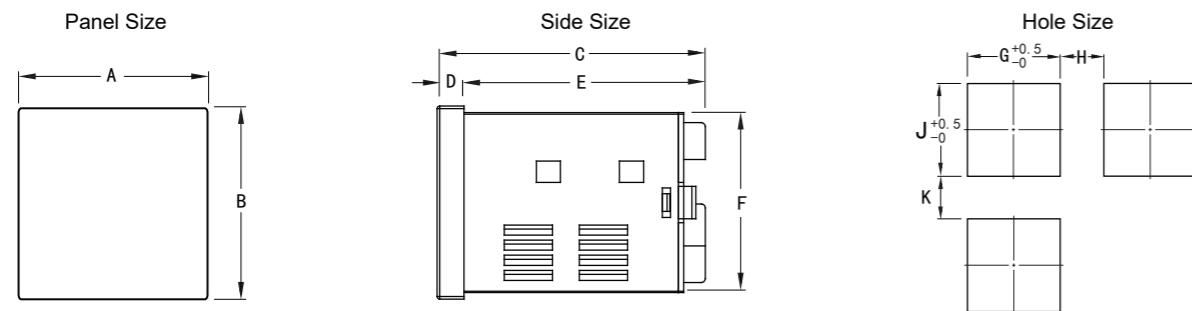
5. Output logic chart



6. Operation Sequence

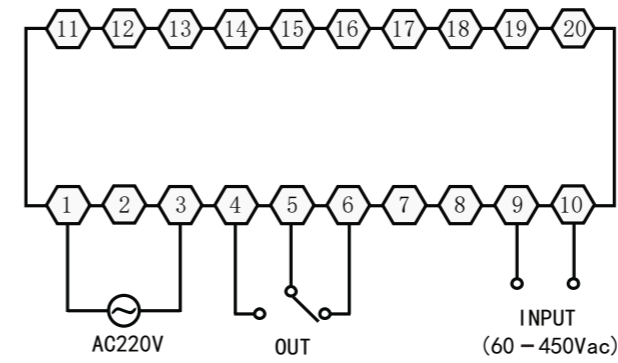


7. Dimension

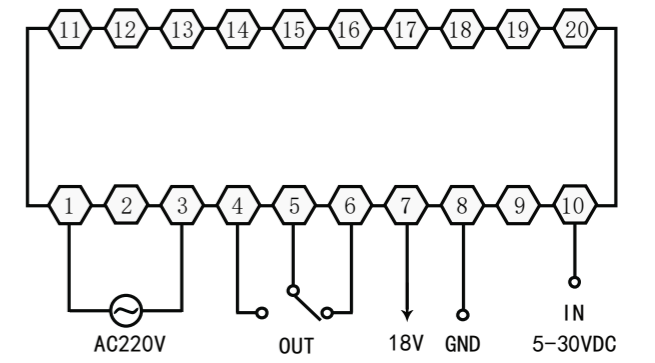


| Model | A | B | C | D | E | F | G | H (Min) | J | K (Min) |
|--------------|----------------------|----|------|-----|----|----|------|---------|------|---------|
| FG3: (36*72) | 72 | 36 | 70.5 | 6.5 | 64 | 32 | 68 | 25 | 33 | 25 |
| FG4: (48*48) | 48 | 48 | 101 | 10 | 91 | 45 | 45.5 | 25 | 45.5 | 25 |
| FG8: (48*96) | 96 | 48 | 100 | 6 | 94 | 45 | 91.5 | 25 | 45.5 | 25 |
| Note | Unit:(mm) Error+0.5% | | | | | | | | | |

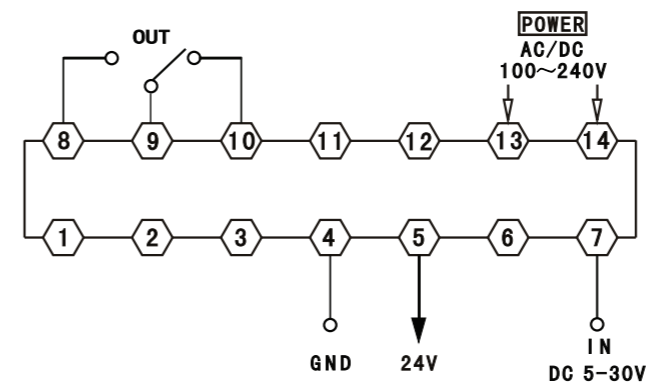
8. Connecting Drawing



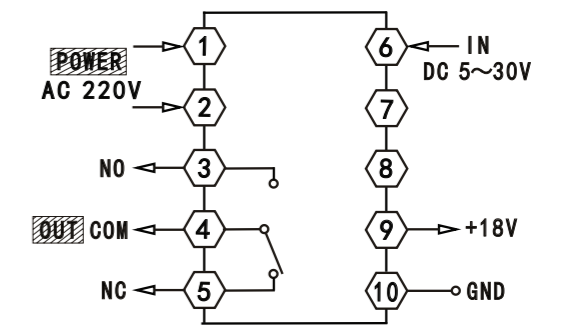
FG8-H



FG8



FG3



FG4