

GCJB-2 MAIN ENGINE ROTATIONAL SPEED CONTROL, DISPLAY UNIT PRODUCT INSTRUCTION



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Microprocessor MPU control technique is adopted for the product's design, in addition PVC overlay technique and touch key are adopted for the panel. The product possesses advantages as small, nice, convenient for installation and use, reliable performance etc. It conforms with the relative specifications and requirements of CCS and overseas classification society .

A. Main electric parameter

- a. Working Voltage:DC24V($\pm 20\%$ -30%)1A;
- b. Ambient Temperature:-10℃~+55℃ ;
- c. Relative Humidity: $\leq$ RH95%(+40℃);
- d. Electro magnetic compatibility: equipment possesses rigorous anti-jamming measures, satisfying the relative specifications and requirements.
- e. Equipments possess measures as anti-vibration, moisture proof, anti- salt mist and anti-fungus.
- f. Alarm output type:dry contact;
- g. Contact maximum capacity:DC36V/1A;
- h. Protection Degree:IP22

The product conforms with IEC-92-230 standard and " steel sea-going ship classification construction rules "which is current in our country, besides accords with SOLAS.

B. Input

- a. Double-probe Input(Type SZB-16-02))
- b. DC24V input

C. Output interface

- a. Ahead running indicating lamp
- b. Astern running indicating lamp
- c. Shut down indicating lamp
- d. Overspeed indicating lamp
- e. Overspeed output lamp
- f. Main engine rotational speed analog output (tachometer) $\pm 10V$ 8-route
- g. Main engine rotational speed analog output 1-20Ma 1-route
- h. Ahead signal Binary(dry contact 1A)
- i. Astern signal Binary(dry contact 1A)
- g. Shut down signal Binary(dry contact 1A)

D. Main functions

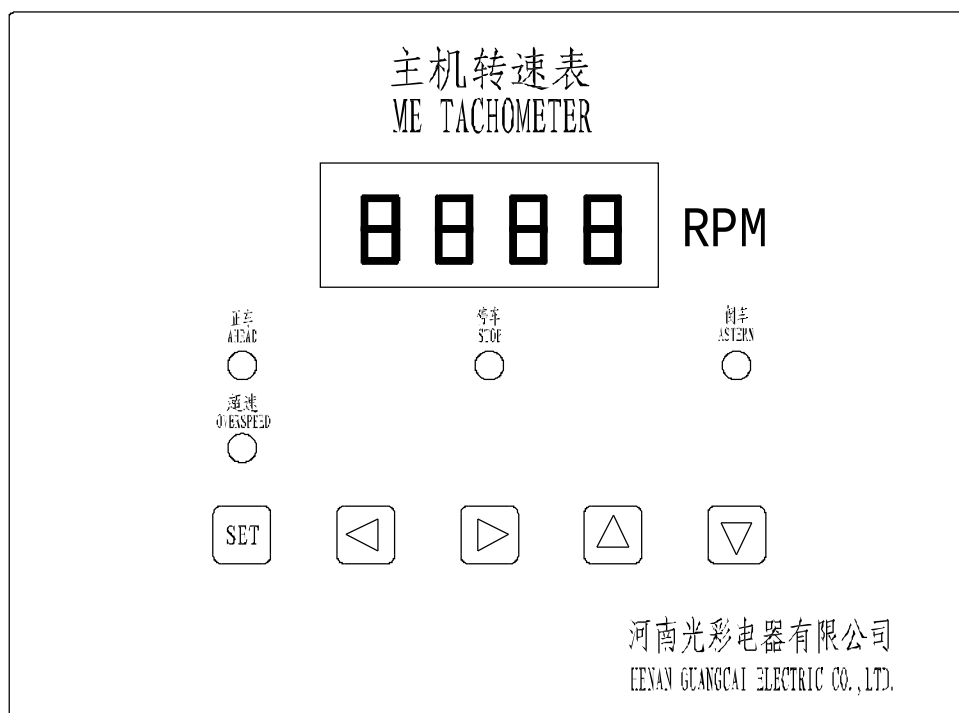
- a. Free set for the range(1~1000Rpm)
- b. Free set for teeth number of gear(1~1000Rpm)
- c. Free set for alarm high limit(1~1000Rpm)
- d. Ahead, Astern, stop indication
- e. Overspeed alarm indication

- f. Overspeed output
- g. Number speed display
- h. Over range error indication

E. Hardware's composition:

- a. Display panel
- b. Control panel
- c. Double tachogenerator

F. Panel schematic diagram



G. Operating instruction

a. Normal mode

1. Normal display speed mode:

0123

2. Error indication(over range)

E

3. Press "SET" key (3S) under the" display speed" mode for a long time, enter into set mode.

0123→1

b.Set mode

1. Setting range

I . 1

“1” expresses the type of setting range

II . 1D123D123D0123D 1

Left key, right key, select the proper setting, then the setting selected will flicker.

III. 123D124

Press upper key▲, down key▼to add or subtract setting number.

IV. 1→2

Press “SET” key to the next setting and save current setting.

V . Automatically return to display speed state without pressing keys in 10S.

2. Setting for teeth number of gear

I . 2

“2” expresses setting for teeth number of gear

II . 2D323D123D0123D 2

Left key, right key, select the proper setting, then the setting selected will flicker.

III. 123D124

Press upper key▲,down key▼to add or subtract setting number.

IV. 2→3

Press “SET” key to the next setting and save current setting.

V . Automatically return to display speed state without pressing keys in 10S.

3.Setting for overspeed alarm value

I . 3

“3”expresses setting for overspeed alarm value

II . 3D323D123D0123D 3

Left key, right key, select the proper setting, then the setting selected will flicker.

III. 123D124

Press upper key▲,down key▼to add or subtract setting number.

IV. 3→4

Press "SET" key to the next setting and save current setting.

V. Automatically return to display speed state without pressing keys in 10S.

4. Setting for low speed alarm value

I. **4**

"4"expresses setting for low speed alarm value

II. **4D323D123D0123D 4**

Left key, right key, select the proper setting, then the setting selected will flicker.

III. **123D124**

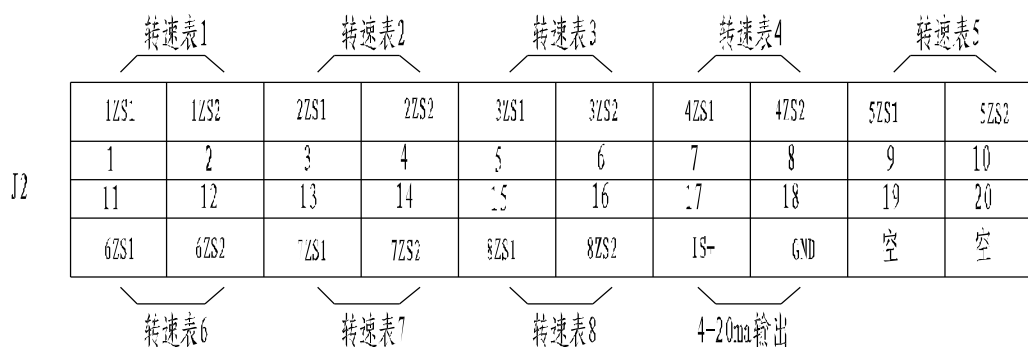
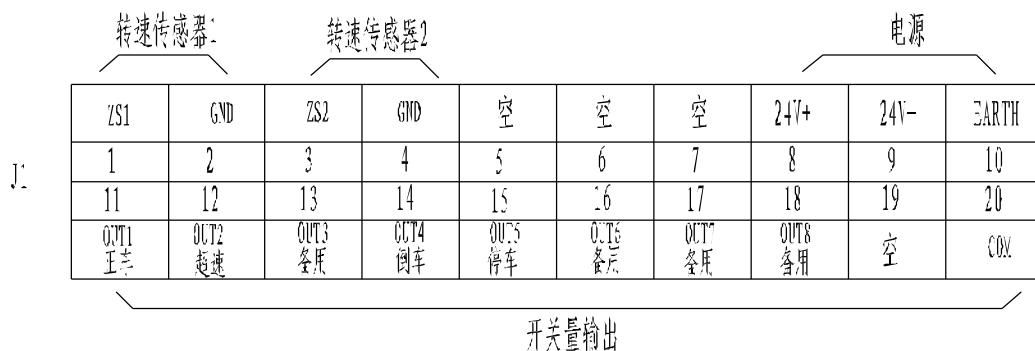
Press upper key▲,down key▼to add or subtract setting number.

IV. **4→0123**

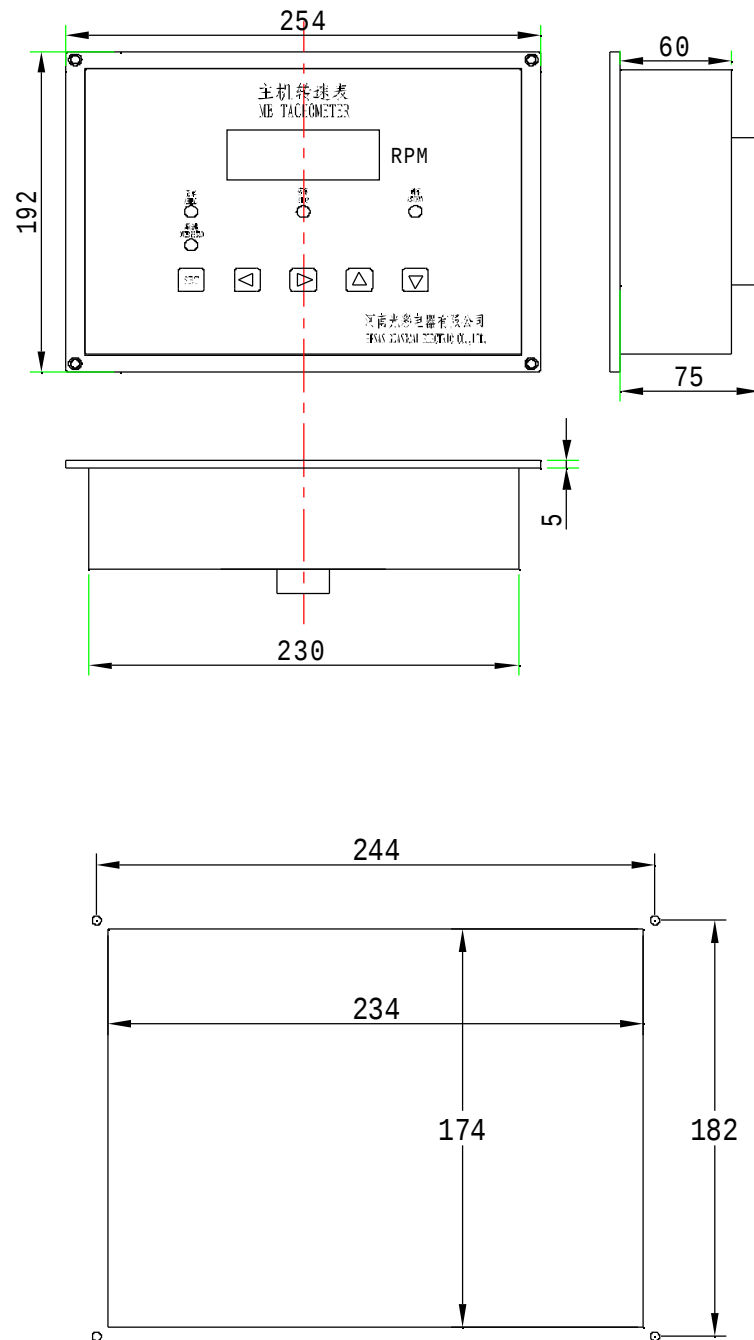
Press SET"key to return to normal mode.

V. Automatically return to display speed state without pressing keys in 10S.

H. Wiring diagram



I. Outline and perforation dimension drawing



These documentations are compiled by technical department of Henan Guangcai Co.,Ltd

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