

GCJB-1 DIESEL ENGINE INTELLIGENCE EXTENSION MONITORING UNIT PRODUCT INSTRUCTION



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A. General:

GCJB-1 Diesel Engine intelligence extension monitoring unit adopts microprocessor MPU control technique and large scale integration, using RS - 485 bus communication technology to proceed data transfer.

The product conforms with relative specifications or standard requirements of CCS and overseas classification society, it has advantages as reliable performance, superior quality, convenient for installation, and suitable for remote transmission display for marine main propulsion diesel engine's parameter. GCJB -1 diesel engine intelligence extension monitoring unit is flush-type mounting structure, and can be installed in engine centralized control room or chief engineer room according to client's requirements, the display unit is composed of operation panel, microcomputer display module and signal reception module.

The product is suitable for different kinds of automatic ships, it adopts PVC overlay technique, possessing advantages as easy and simple to handle, flexible configuration, nice and small etc.

B. Main parameter and use:**1. Main parameter:**

- ①. Working Voltage: DC24V($\pm 20\%$ -30%)1A;
- ②. Ambient Temperature: $-10^{\circ}\text{C} \sim +55^{\circ}\text{C}$;
- ③. Relative Humidity: $\leq \text{RH}95\%$ ($+40^{\circ}\text{C}$);
- ④. Electro magnetic compatibility: the equipment comprises rigorous anti-jamming measures, and satisfies with relative specifications and requirements.
- ⑤. The equipment possesses measures as anti-vibration, moisture proof, anti-salt mist and anti-fungus.
- ⑥. Alarm output type: dry contact;
- ⑦. Maximum capacity of contact: DC36V/1A;
- ⑧. Protection Grade: 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.

2. Input Signal:

Standard RS-485

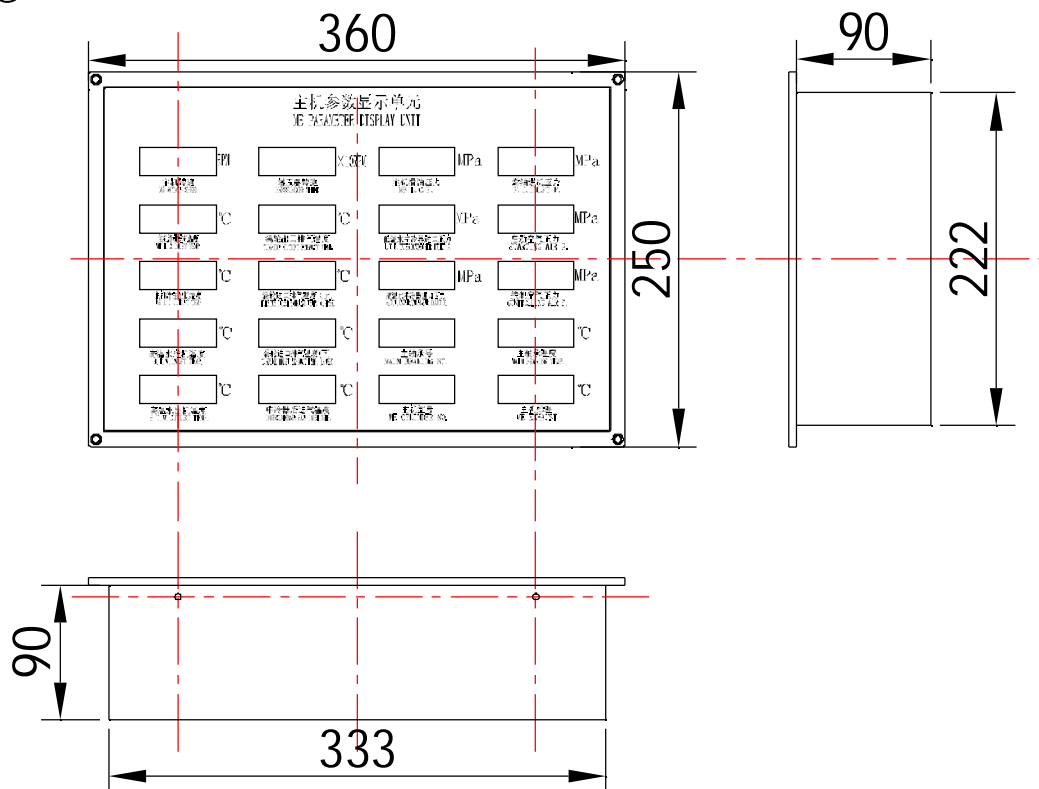
3. Main display contents:

M/E ROTATIONAL SPEED
TURBOCHARGER ROTATIONAL SPEED
M/E L.O.PRESS.
F.O.INLET PRESS.

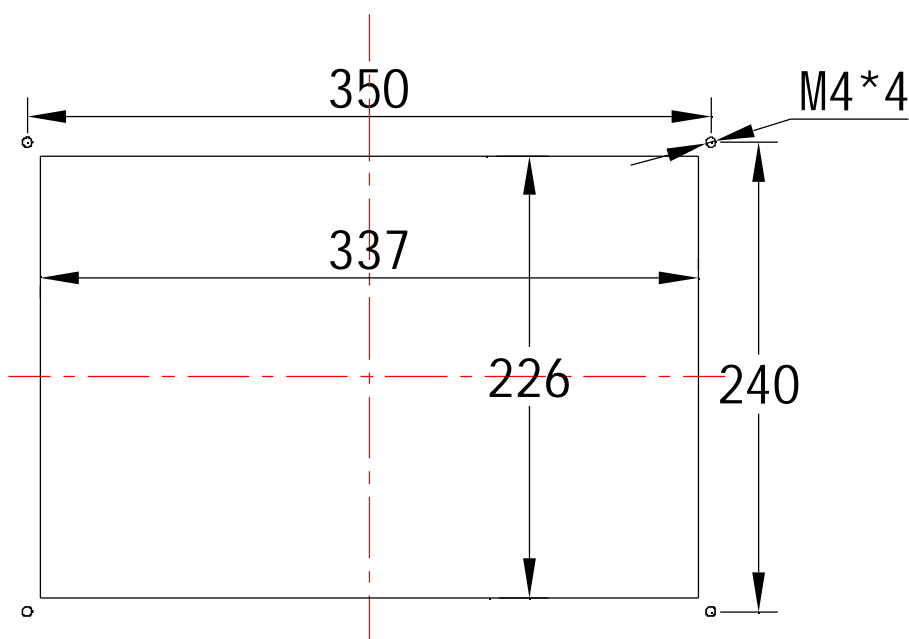
M/E L.O.INLET TEMP.
 TURBINE OUTLET EXH.GAS TEMP.
 L.T.W.INTERCONDENSER INLET PRESS.
 STARTING AIR PRESS.
 M/E L.O.OUTLET TEMP.
 TURBINE INLET EXH.GAS TEMP.(UPPER)
 H.T.W.INTERCONDENSER INLET P.
 CONTROLLING AIR P.
 H.T.W.INLET TEMP.
 TURBINE INLET EXH.GAS TEMP.(LOWER)
 MAIN BEARING TEMP..
 H.T.W.OUTLET TEMP.
 INTERCONDENSER BACK INLET TEMP.
 M/E EXH.GAS TEMP.

4. External and panel cut-out dimension drawing

①. External dimension:



②. Installation dimension:



5. System wiring diagram:

485通讯							电源		
2A	2B	空	空	空	空	空	24V+	GND	EARTH
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
空	空	空	空	空	空	空	空	空	空

开关量输出									
OUT1	OUT2	OUT3	OUT4	OUT5	OUT6	OUT7	OUT8	COM	空
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
OUT9	OUT10	OUT11	OUT12	OUT13	OUT14	OUT15	OUT16	COM	空

开关量输出

说明: 2A, 2B 接到主机机旁控制箱的通讯线上, 24V+ GND接电源, 其余的线不接

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

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