MARINE ELECTRONIC INCLINOMETER

RONGDE

General

According the latest rule of IMO, electronic inclinometer, installed on or after 1 July 2015, is not only comply with the rule of IMO A.694 (17) & MSC191（79）, but also comply with MSC.363(92).

Description

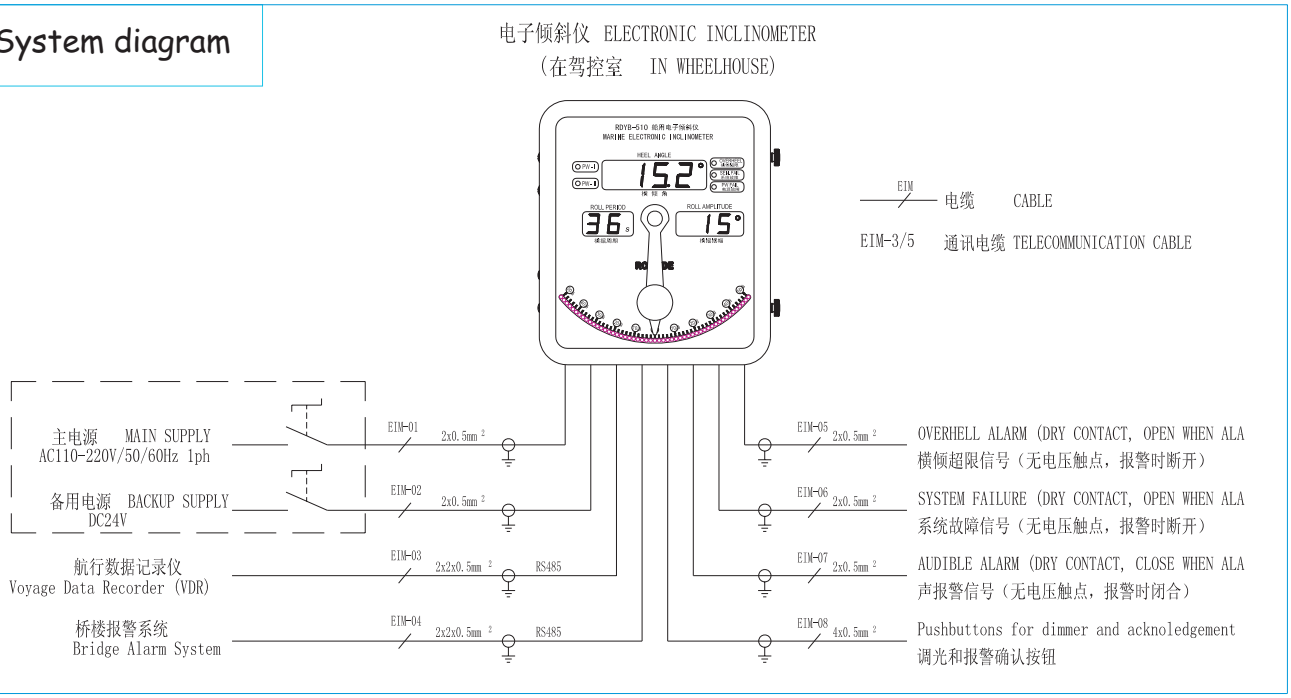
The RDYB-510 Marine Electronic Inclinometer may be used for real-time display the actual heel angle of the ship, so that the crew to assess the dynamic situation of the ship. And the heel information stored in the VDR is to be available for marine casualty investigation in the event of a maritime accident.

The device is vertically mounted on the upper of front wall or rear wall in wheelhouse, the position should be vertical, and as close as possible to the center axis line of ship.

Working principle

The RDYB-510 Marine Electronic Inclinometer is installed in wheelhouse. When the ship hull heels, the inclined sensor installed in EIM send the heel angle single to CPU. After the single is calculated, the current actual heel angle, roll amplitude and roll period of the ship can be displayed. The positive and negative direction of heel angle (zero is used as the basic value) can be displayed at the same time. The relate information, such as actual heel angle, device position, alarm signal, etc can be transmitted to VDR, BAS and external systems through communication interfaces and output contacts. And the EIM can be acknowledged and silenced by control single from external systems.

System diagram



Type: RDYB-510

Shanghai Rongde Engineering Equipment Co.,Ltd.
Add.: 11/14 flr., No.1, Lane 1695, Pudong Ave., Shanghai 200135, CHINA
Tel:+86-21-68532791 Mobile:+86-13816137780
W:www.rongded.com E: trade-2@rongded.com

MARINE ELECTRONIC INCLINOMETER

RONGDE

CLASS CERTIFICATE:

LR type approval

CCS type approval (in the process of application)

Technical specification

- Powers supply
- Main source: AC220V/110V 1ph 50/60Hz
- Backup source: DC24V
- Consumption: Max 200mA/DC24V
- Heel angle
  - Display range: -90° ～0～+90 (Pendulum pointer：0-±50°)
  - Display accuracy (0～±50°): 5% of reading or ±1° (whichever is the greater)
- Roll amplitude
  - Display range: -90° ～0～+ 90°
  - Display accuracy (0～±50°): 5% of reading or ±1° (whichever is the greater)
- Roll period
  - Display range: 4 s ～ 40 s;
  - Display accuracy: 5% of reading or ±1 s (whichever is the greater)
- Signal output contact (dry contact)
  - Capacity of contact: AC24V/DC24V,
  - Description for signal contacts
  - Contact for system failure: Normal closed
  - Contact for Audible alarm: Normal open
  - Contact for over heel alarm: Normal open
- Communication interface
  - There are 2 pieces of interfaces with isolation structure:
  - a) Data interface: to transmit the specific digital information;
  - b) Alarm signal interface: to transfer alerts to external systems and to receive the acknowledgment and silence alerts from external systems.
  - c) The data protocol and format is comply with the standard IEC61162-11.
- Working enviroment:
  - Temperature: 5℃ - 55℃ Relative humidity: 30%～90%. Air pressure: 90 kPa ± 10 kPa.
- Dimmer and acknowledgment

Type: RDYB-510

Shanghai Rongde Engineering Equipment Co.,Ltd.
Add.: 11/14 flr., No.1, Lane 1695, Pudong Ave., Shanghai 200135, CHINA
Tel:+86-21-68532791 Mobile:+86-13816137780
W:www.rongded.com E: trade-2@rongded.com