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HLD-SC 600/HLD-TCS 600

STEERING CONTROL SYSTEM



HLD-SC 600 Steering Control System is based on years of intensive research & development by Beijing Highlander Digital Technology Co., Ltd. The latest generation digital steering control system has been type approved by China Classification Society (CCS) and DNV GL. Heading Control System is adaptive to different types of vessels and loading conditions. The precision control results in less rudder movements, which not only reduces the wear and tear on machinery but also reduces fuel consumption.

Features

■ Wide range of applications

- Modular design: all modules are of a standard size or a multiple of the standard size. Different combinations of modules can be used to meet different needs, ranging from basic follow-up steering to full autopilot mode, for single-rudder and dual/twin-rudder systems.
- Autopilot module available separately.
- Steering Gear Pump Starter, Steering Gear Alarm, and NFU Control Box are provided separately.
- Suitable for container ships, utility vessels, bulk carriers, offshore tugs, small fishing vessels, and others.

■ High reliability

Online self-monitoring technology detects system abnormalities at any time. Strict channel isolation technology ensures that each channel is electrically independent and fully isolated from other channels.

■ High control accuracy & energy efficiency

Advanced control algorithms ensure follow-up control accuracy of less than 0.3° , and better than 0.3° in Sea State 3 under automatic control mode; they also reduce steering frequency, avoid large rudder angles, save fuel, and reduce wear and tear on the steering system.

■ Friendly interface

Full-color & 7-inch touch screen with keyboard.

■ All-digital design

All-digital interfaces (IEC 61162-1), including the interface with the VDR; supports two heading source input.

■ Easy installation and maintenance

Original calibrated correction technology, simplifies Rudder Feedback Unit connecting rod installation.

■ Intelligent alarm system

100 records of history alarm.

■ Multiple automatic control functions

Including heading control, course control, track control.

■ Large data analysis

Heading records of 2 hours, which are helpful to steering.

■ Remote maintenance

Maintainable remotely together with HLD-VDR 600.



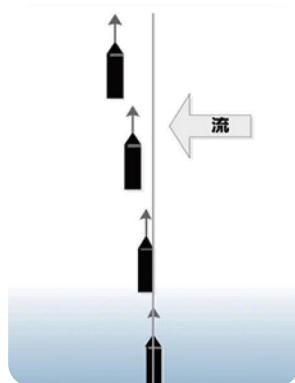
Functions

Functions	Characteristics
Non-Follow-up steering Control	Non-Follow-up Unit using solid and reliable handle, operating feeling good.
Follow-up steering Control	Helm wheel can be locked in every position, and the dial scale near zero degrees especially has been amplified in order to precise steering.
Override	Support direct operate the Non- follow-up Unit to override control when on Automatic steering Control mode.
Automatic steering Control	Support the heading control, course control, track control.
Remote Control	Multiple remote control stations, select by Remote Control Link Unit.

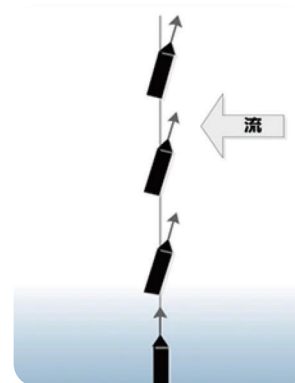


Automatic Control Unit

Heading control & Course control



Heading control



Course control

Technical parameters

Power input	<ul style="list-style-type: none"> ● 220/380/440VAC24V ● DC(18~36V DC) 	Signal Output	<ul style="list-style-type: none"> ● To Steering engine Contact output (110V DC~0.5 A,24V DC~ 2.0 A) Voltage Output(+/-10 V DC ~ Max 5mA) ● To VDR NMEA-HTD, RSA,ALR ● Alarm Output OFF-heading, Heading monitor, Follow-up amplifying system failure, System failure alarm, Low speed, Rudder limit Steering gear alarm unit (optional) ● Status Output Steering mode Override, Heading, Set heading, Heading source, Speed source, ROT, Rudder order, rudder, rudder Limit, System status
Consumption	40W		
Temperature	<ul style="list-style-type: none"> ● Working -15°C~55°C ● Storage -25°C ~70°C 		
Signal input	<ul style="list-style-type: none"> ● Gyrocompass NMEA, HDT, THS ● Magnetic compass NMEA, HDT, HDG ● Speed Log NMEA, VTG, VHW, VBW 	Regulations	<ul style="list-style-type: none"> ● IEC 62288 ● A.342(IX) A.694(17), MSC.64(67)Annex 3 ● CCS «Rules for Classification of Steel Ships» ● SC-94
Regulations	<ul style="list-style-type: none"> ● ISO 11674 ● EN/IEC 62065 ● EN/IEC 61162-1 ● EN/IEC 60945 ● ISO 16329 ● IEC61174 		

HLD-TCS 600 Track Control System

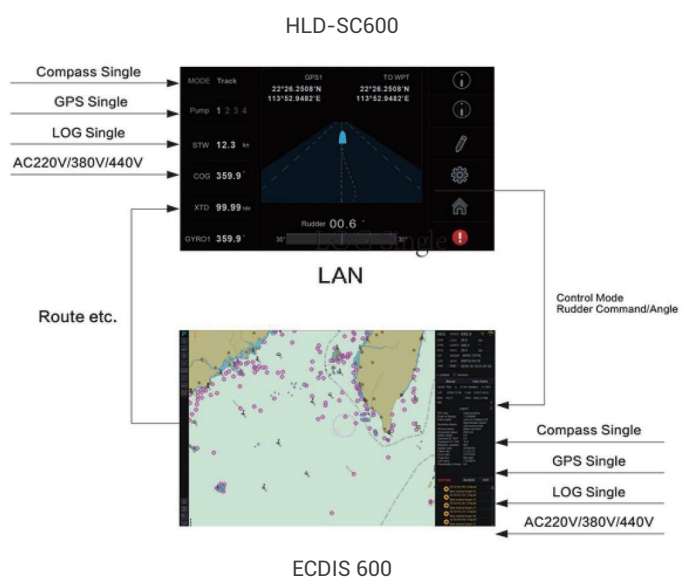
- ECDIS: HLD-ECDIS 600
- Steering Control System: HLD-SC 600

Functions

- The HLD-SC 600 system provides rhumb line and great circle sailing modes; the latter helps ocean vessels to find the shortest route.
- The HLD-SC 600 system provides a route planning verification function, whereby the rationality, safety, and operability of the planned route can be validated before execution.
- The HLD-SC 600 system provides assisted course changes (turns) between legs, enabling the vessel to turn smoothly and automatically according to the user's configured turning parameters.

Track control system performance

- Control performance: the cross-track error is less than 0.1nm under the 3rd sea state.



Product Configuration

Standard

Manual steering system

● Steering Mode Switch	HLD-SW200
● Follow-up Unit	HLD-FU200
● Non-Follow-up Unit	HLD-NFUV200
● Rudder Feedback Unit	HLD-RFU600
● Steering Control Unit	HLD-SCU600

Alarm System

● Alarm Display Unit	HLD-ADU600
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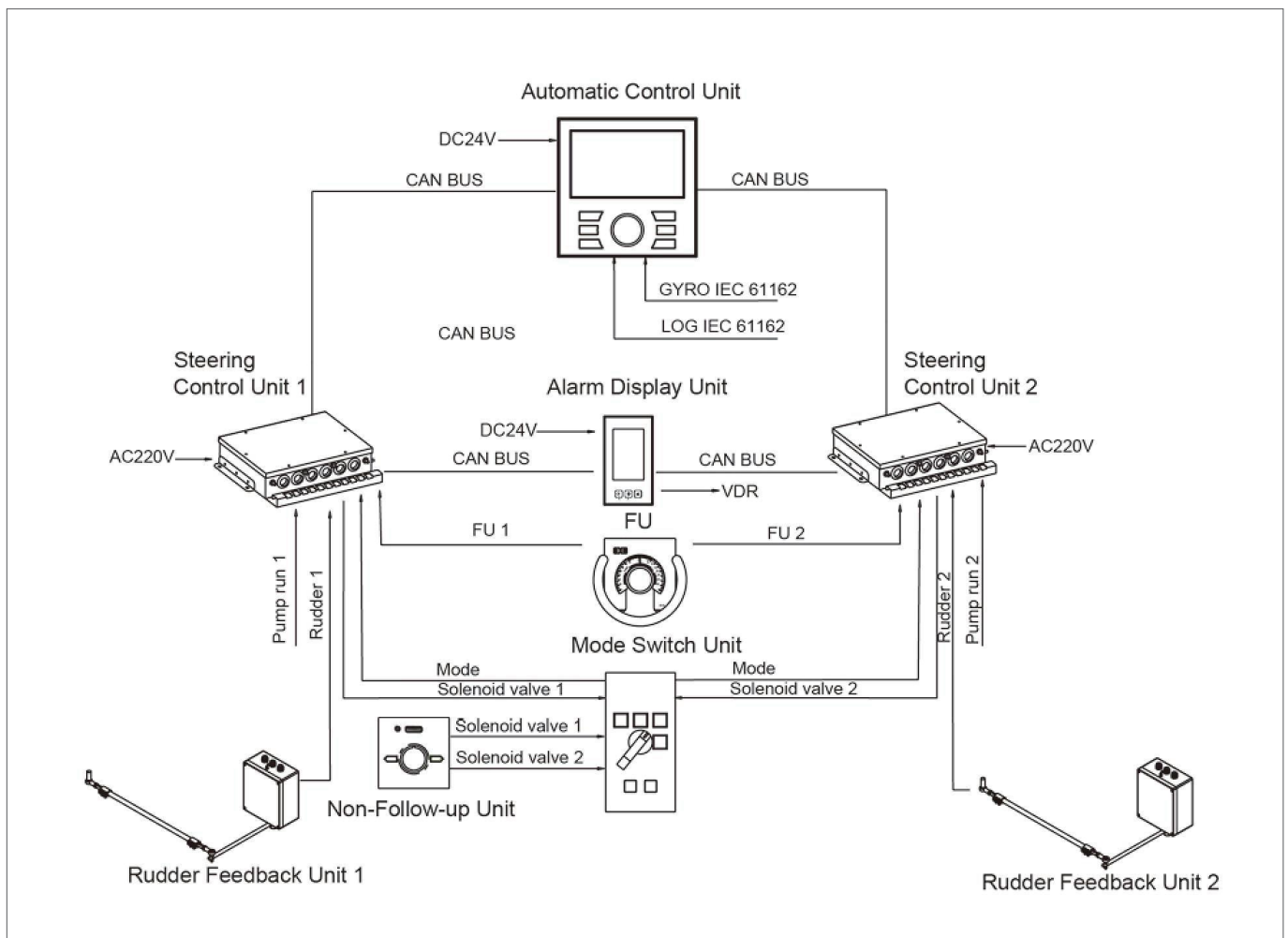
Automatic Steering System

● Automatic Control Unit	HLD-ACU600
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Optional

● Relay	HLD-RE200
● Rudder Pump System Switch	HLD-RPS200
● Compass Repeater	HLD-RP200
● External Steering Interface Unit	HLD-ESIU600
● Remote Control Link Unit	HLD-RRU600
● Mini Follow-up Unit	HLD-MFU600
● Steering Gear Pump Starter	HLD-SST600
● Steering Gear Alarm & NFU Control Box	HLD-SAC600
● Steering Alarm Display Unit	HLD-SADU600
● Automated bridge console	HLD-ST200
● Dual NFU Unit	HLD-NFU200
● Servo Control Box	HLD-SCU600-MDW

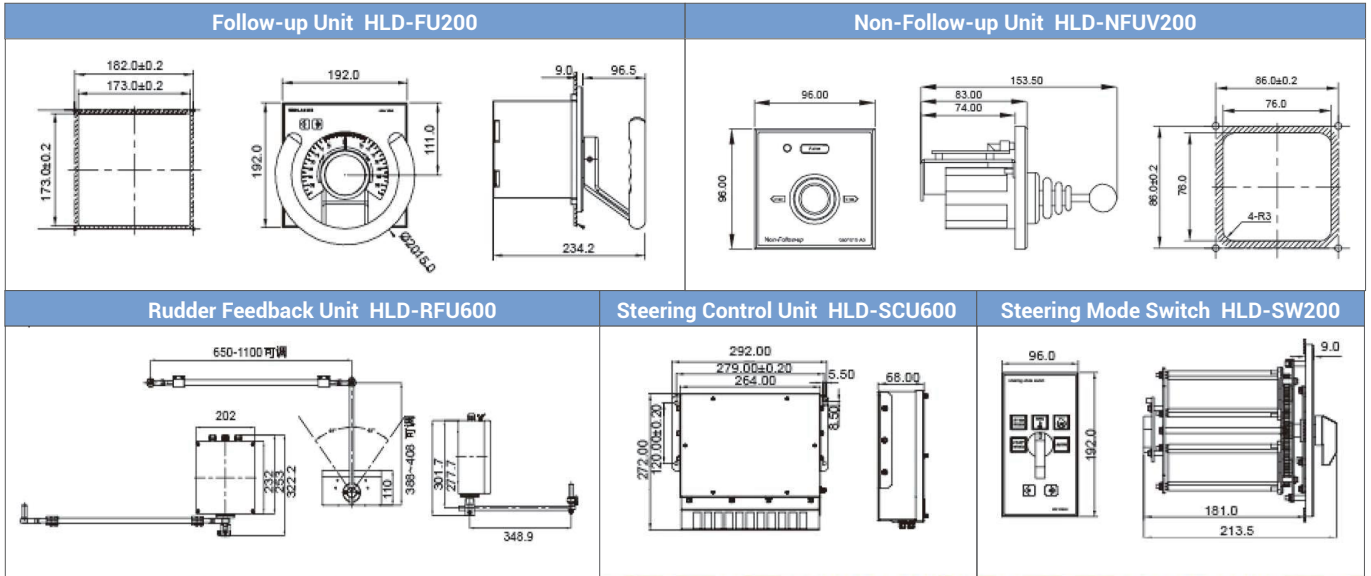
Typical Configuration



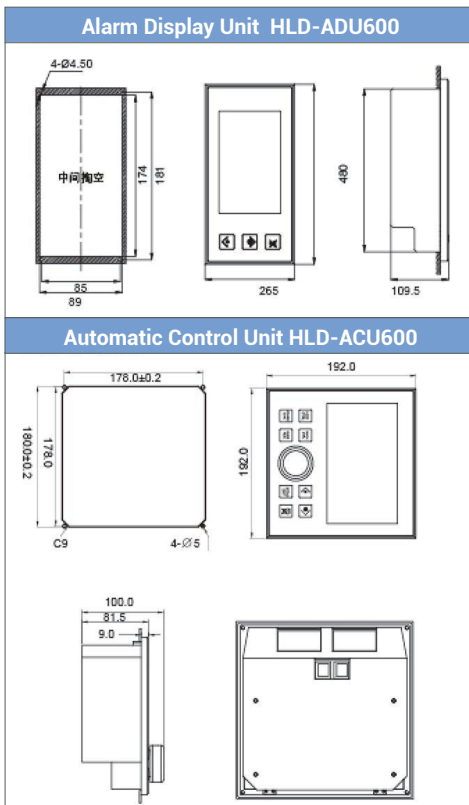
HLD-SC 600 Steering Control System

Dimensional Drawings

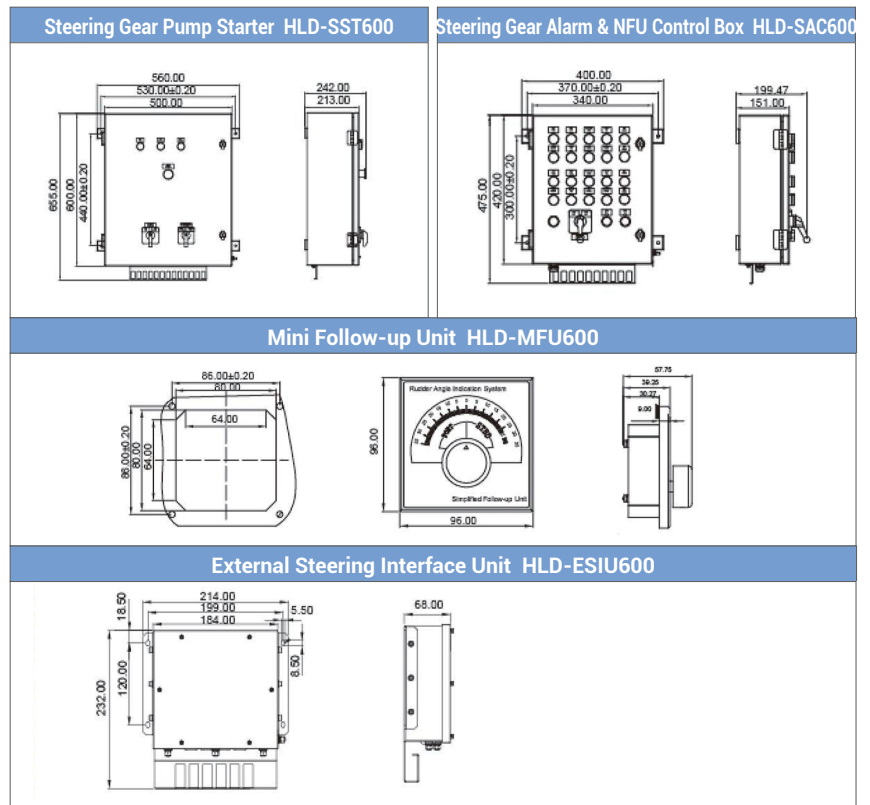
Manual System



Alarm & Automatic Control



Optional Components



24 Hours
服务热线

Tel: 400 088 3335 / +86 513 8058 2906
E-mail: radar@highlander.com.cn
service@highlander.com.cn

Jiangsu Highland Integration Technology Co., Ltd.
Jiangsu Tusuo Ocean Technology Co., Ltd.

Add: No. 199, Qingfeng Road, Sutong Science & Technology Industrial Park, Nantong City, Jiangsu Province, China
Tel: +86 513 80582989 Fax: +86 513 80582929 Website: www.highlander.com.cn Post code: 226017